1990 Mazda MX-5 Workshop Manual

FORWARD

This workshop manual is intended for use by service technicians of Authorised Mazda Dealers to help them service Mazda vehicles. It can also be useful to owners and operators of Mazda vehicles in diagnosing some problems and performing limited repair and maintenance on Mazda vehicles.

For proper repair and maintenance a thorough familiarisation with this manual is important, and it should always be kept in a handy place for quick and easy reference.

All the contents of this manual, including drawing and specifications, are the latest available at the time of printing. As modifications affecting repair or maintenance occur, relevant information supplementary to this volume will be made available at Authorised Mazda dealers. This manual should be kept up-to-date.

Mazda Motor Corporation reserves the right to alter the specifications and contents of this manual without obligation or advance notice.

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Mazda Motor Corporation
HIROSHIMA, JAPAN

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APPLICATION:
This manual is applicable to vehicles beginning with the Vehicle Identification Numbers (VIN) shown on the following page.

VEHICLE IDENTIFICATION NUMBERS (VIN)

JM1 NA351＊L0 100001～
JM1 NA352＊L0 100001～

GENERAL INFORMATION

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IMPORTANT INFORMATION

BASIC ASSUMPTIONS

This workshop manual assumes that you have certain special tools that are necessary for the safe and efficient performance of service operations on Mazda vehicles and that you know how to use them properly. It also assumes that you are familiar with automobile systems and basic service and repair procedures. You should not attempt to use this manual unless these assumptions are correct and you understand the consequences described below.

SAFETY RISK

This manual contains certain notes, warnings, and other precautionary information that you should carefully read and follow to reduce the risk of personal injury to yourself or others and the risk of improper service that may damage the vehicle or render it unsafe. If there is no such information in regard to any specific service method, this does not mean there is no possibility that personal safety or vehicle safety will be jeopardized by the use of incorrect methods or tools.

POSSIBLE LOSS OF WARRANTY

The manufacturer's warranty on Mazda vehicles and engines can be voided if improper service or repairs are performed by persons other than those at an Authorized Mazda Dealer.

WARNING ON LUBRICANTS AND GREASES

Avoid all prolonged and repeated contact with mineral oils, especially used oils. Used oils contaminated during service (e.g., engine sump oils) are more irritating and more likely to cause serious effects, including skin cancer, in the event of gross and prolonged skin contact.

Wash skin thoroughly after work involving oil.
Protective hand cleaners may be of value provided they can be removed from the skin with water. Do not use gasoline, paraffin, or other solvents to remove oil from the skin.

Lubricants and greases may be slightly irritating to the eyes.

Repeated or prolonged skin contact should be avoided by wearing protective clothing. Particular care should be taken with used oils and greases containing lead. Do not allow work clothing to be contaminated with oil. Dry clean or launder such clothing at regular intervals.

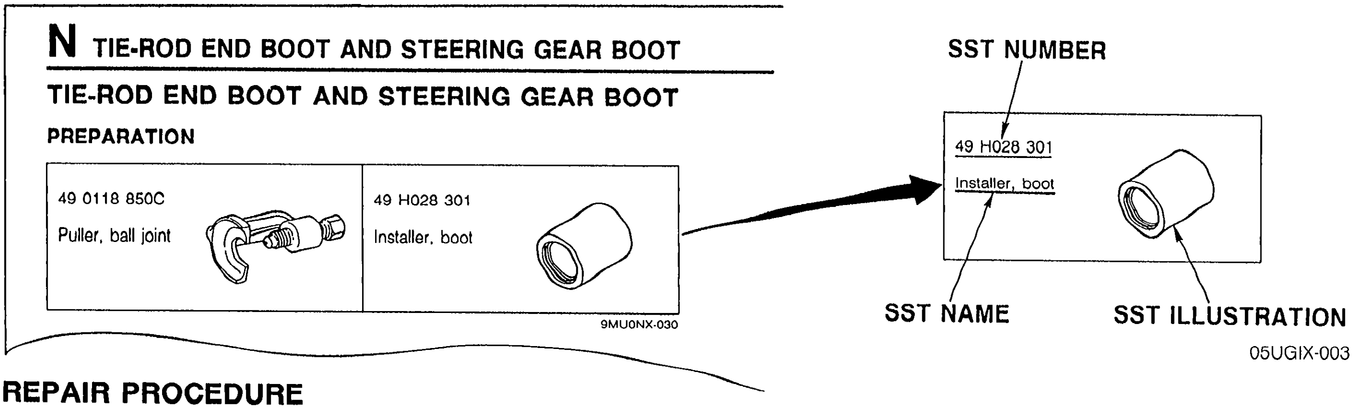
05UGIX-002

HOW TO USE THIS MANUAL

PREPARATION

PREPARATION points out the needed **Special Service Tool (SST)** for the service operation that it preceeds. Gather all necessary **SST** before beginning work.

Example:



N TIE-ROD END BOOT AND STEERING GEAR BOOT

TIE-ROD END BOOT AND STEERING GEAR BOOT

PREPARATION

49 0118 850C Puller, ball joint	49 H028 301 Installer, boot

9MU0NX-030

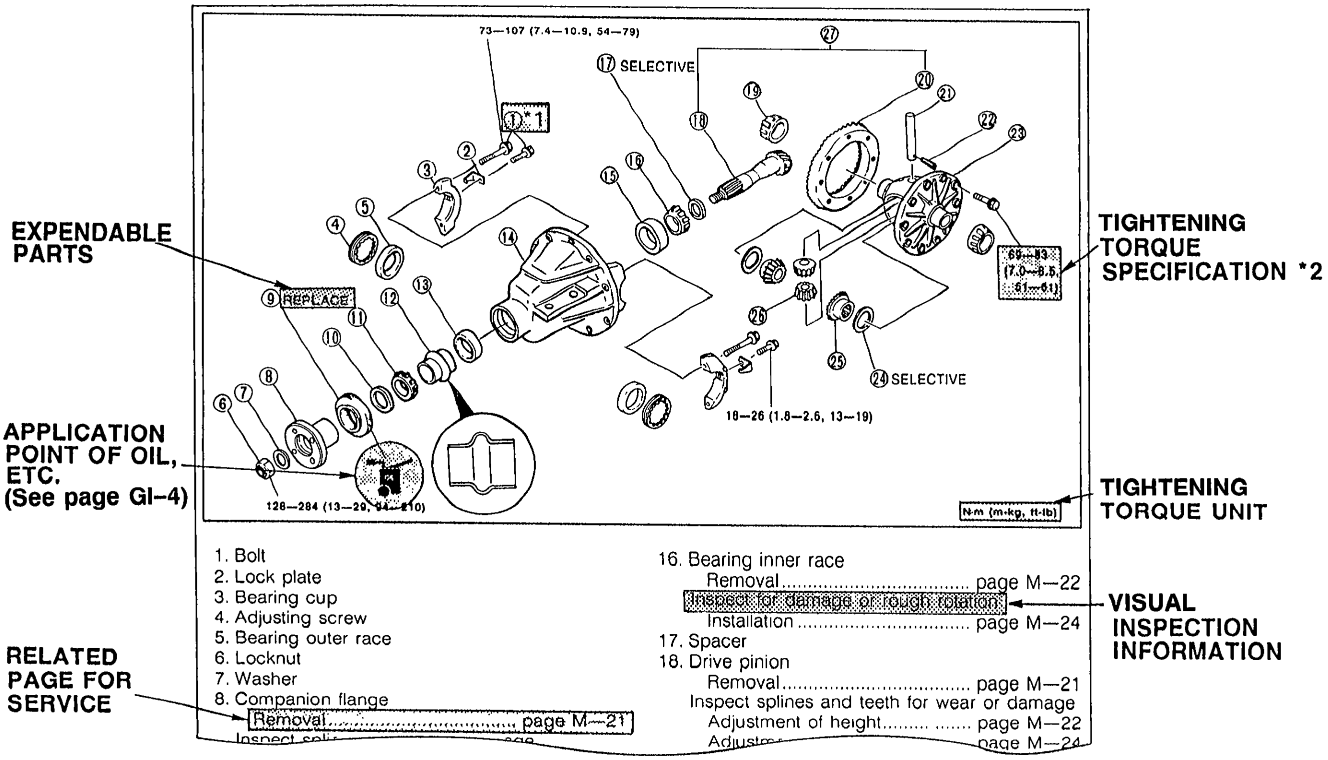
SST NUMBER
49 H028 301
Installer, boot
SST NAME
SST ILLUSTRATION

05UGIX-003

REPAIR PROCEDURE

1. Most repair operations begin with an overview illustration. It identifies the components, shows how the parts fit together, and describes visual parts inspections. If a damaged or worn part is found, repair or replace it as necessary.
2. Expendable parts, tightening torques, and symbols for oil, grease, and sealant are shown in the overview illustration.
3. Pages related to service procedures are shown under the illustration. Refer to this information when servicing the related part.

Example:



73—107 (7.4—10.9, 54—79)
① *1
②
③
④
⑤
⑨ REPLACE
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰ SELECTIVE
⑱
⑲
⑳
㉑
㉒
㉓
㉔ SELECTIVE
㉕
㉖
㉗
⑥
⑦
⑧
18—26 (1.8—2.6, 13—19)
69—83 (7.0—8.5, 51—61)
128—284 (13—29, 94—210)
N·m (m-kg, ft-lb)
EXPENDABLE PARTS
APPLICATION POINT OF OIL, ETC. (See page GI-4)
RELATED PAGE FOR SERVICE
TIGHTENING TORQUE SPECIFICATION *2
TIGHTENING TORQUE UNIT
VISUAL INSPECTION INFORMATION

1. Bolt
2. Lock plate
3. Bearing cup
4. Adjusting screw
5. Bearing outer race
6. Locknut
7. Washer
8. Companion flange
    Removal.................................. page M—21
    Inspect spl

16. Bearing inner race
    Removal.................................. page M—22
    Inspect for damage or rough rotation
    Installation.............................. page M—24
17. Spacer
18. Drive pinion
    Removal.................................. page M—21
    Inspect splines and teeth for wear or damage
    Adjustment of height........ ...... page M—22
    Adjustm page M—24

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*1: The numbers (① ex.) refer to parts identification and where necessary servicing procedure.
*2: Units are in N·m (m-kg, ft-lb) unless otherwise specified.

05UGIX-004

SYMBOLS

There are six symbols indicating oil, grease, and sealant. These symbols show the points of applying such materials during service.

Symbol	Meaning	Kind
OIL	Apply oil	New engine oil or gear oil as appropriate
BRAKE FLUID	Apply brake fluid	Only brake fluid
ATF	Apply automatic transmission fluid	Only ATF
GREASE	Apply grease	Appropriate grease
SEALANT	Apply sealant	Appropriate sealant
Ⓟ	Apply petroleum jelly	Appropriate petroleum jelly

05UGIX-005

Note

- **When special oil or grease is needed, this is shown in the illustration.**

NOTES, CAUTIONS, AND WARNINGS

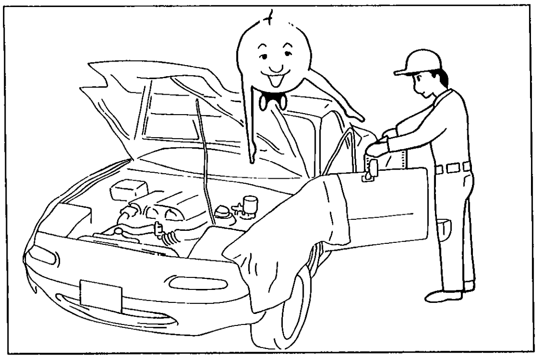
As you read through the procedures, you will come across NOTES, CAUTIONS, and WARNINGS. Each one is there for a specific purpose. **NOTES** give you **added information** that will help you to complete a particular procedure. **CAUTIONS** are given to prevent you from making an error that could **damage the vehicle. WARNINGS** remind you to be especially careful in those areas where carelessness can cause **personal injury.** The following list contains some general WARNINGS you should follow when you work on a vehicle.

9MUGIX-036

FUNDAMENTAL PROCEDURES

PROTECTION OF VEHICLE

Always be sure to cover fenders, seats, and floor areas before starting work.



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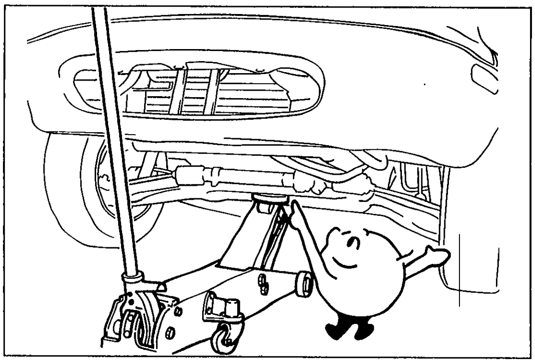


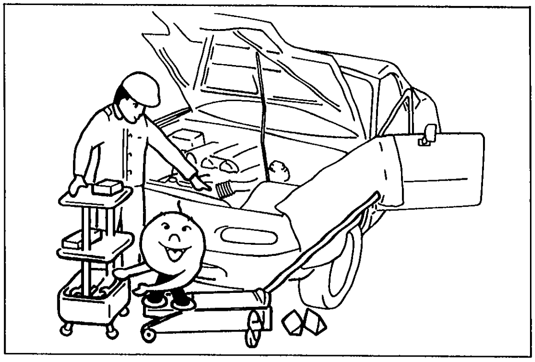
9MUGIX-003

A WORD ABOUT SAFETY

The following precautions must be followed when jacking up the vehicle.

1. Block the wheels.
2. Use only the specified jacking positions.
3. Support the vehicle with safety stands.

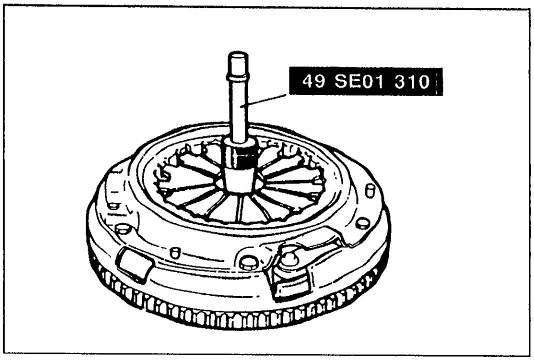
Start the engine only after making certain the engine compartment is clear of tools and people.



9MUGIX-038

PREPARATION OF TOOLS AND MEASURING EQUIPMENT

Be sure that all necessary tools and measuring equipment are available before starting any work.



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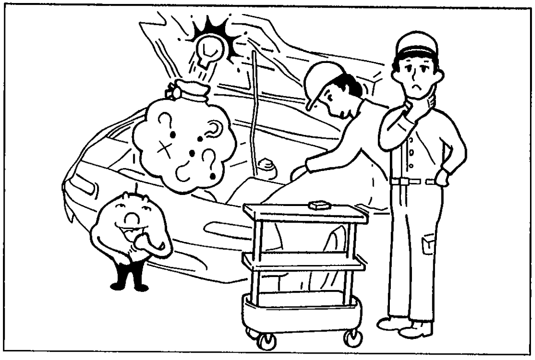
SPECIAL TOOLS

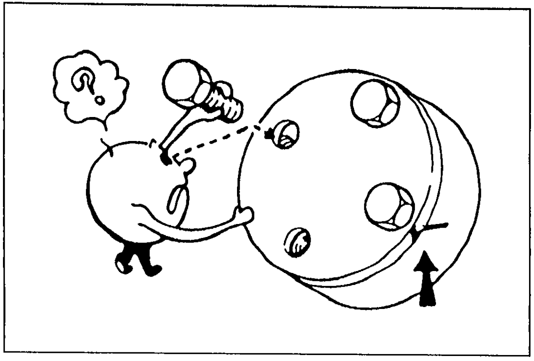
Use special tools when they are required.



47U0GX-006

REMOVAL OF PARTS

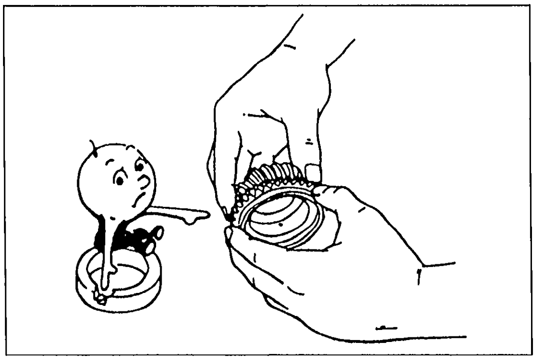
While correcting a problem, try also to determine its cause. Begin work only after first learning which parts and subassemblies must be removed and disassembled for replacement or repair.



9MUGIX-039

DISASSEMBLY

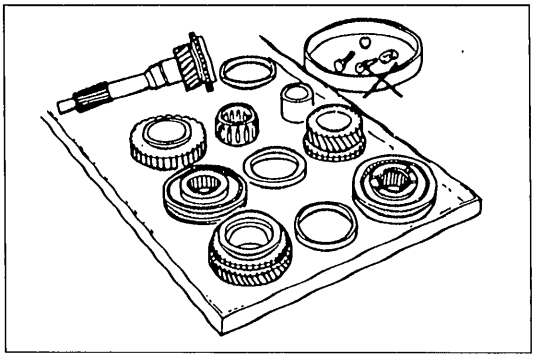
If the disassembly procedure is complex, requiring many parts to be disassembled, all parts should be disassembled in a way that will not affect their performance or external appearance and identified so that reassembly can be performed easily and efficiently.



9MUGIX-040

1. Inspection of parts

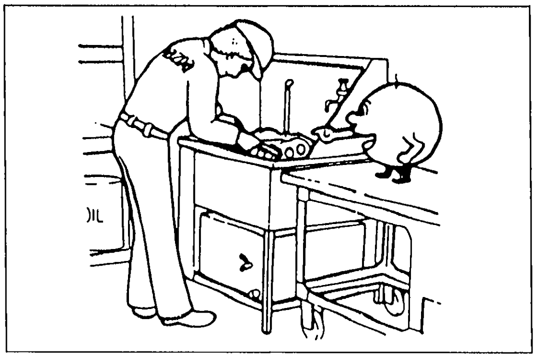
When removed, each part should be carefully inspected for malfunctioning, deformation, damage, and other problems.



9MUGIX-041

2. Arrangement of parts

All disassembled parts should be carefully arranged for reassembly.
Be sure to separate or otherwise identify the parts to be replaced from those that will be reused.



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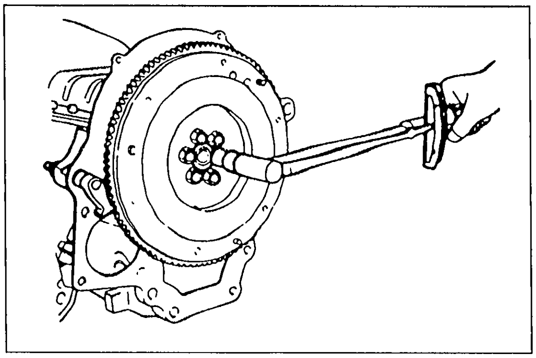
3. Cleaning parts for reuse

All parts to be reused should be carefully and thoroughly cleaned in the appropriate method.

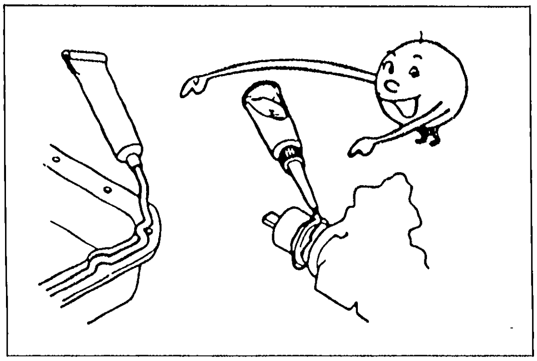


9MUGIX-004

REASSEMBLY

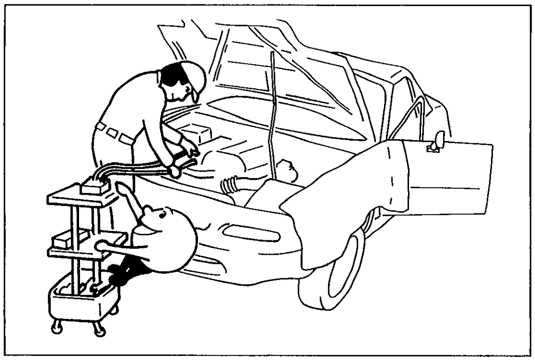
Standard values, such as torques and certain adjustments, must be strictly observed in the reassembly of all parts.
Refer to STANDARD BOLT AND NUT TIGHTENING TORQUE in Section TD for tightening torques not mentioned in the main text.
If removed, these parts should be replaced with new ones:

1. Oil seals	2. Gaskets
3. O-rings	4. Lock washers
5. Cotter pins	6. Nylon nuts



9MUGIX-042

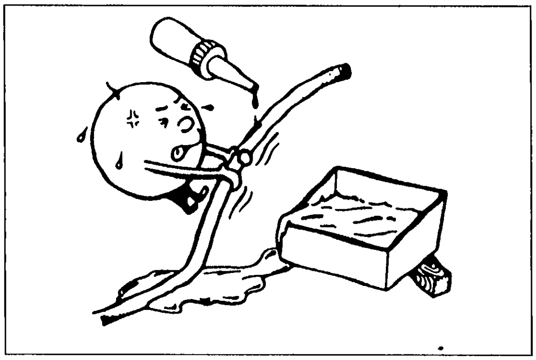
Depending on location:
1. Sealant should be applied to gaskets.
2. Oil should be applied to the moving components of parts.
3. Specified oil or grease should be applied at the prescribed locations (such as oil seals) before reassembly.



67U0GX-002

ADJUSTMENTS

Use suitable gauges and/or testers when making adjustments.



9MUGIX-005

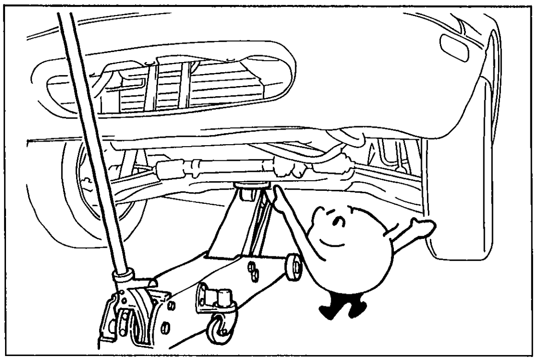
RUBBER PARTS AND TUBING

Prevent gasoline or oil from getting on rubber parts or tubing.

JACK AND SAFETY STAND POSITIONS

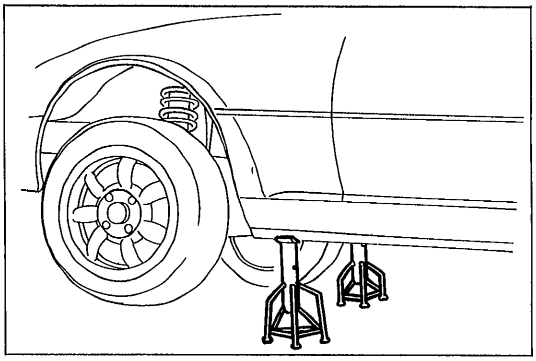
FRONT

Jack position:
At center of crossmember



05UGIX-007

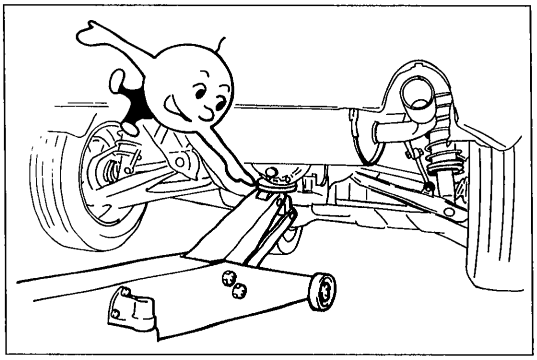
Safety stand positions:
Side sills



9MUGIX-007

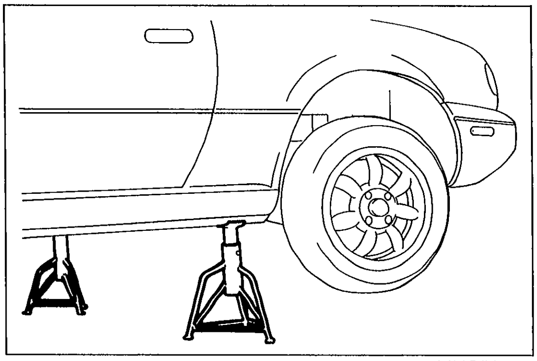
REAR

Jack position:
At center of differential



05UGIX-008

Safety stand positions:
Side sills

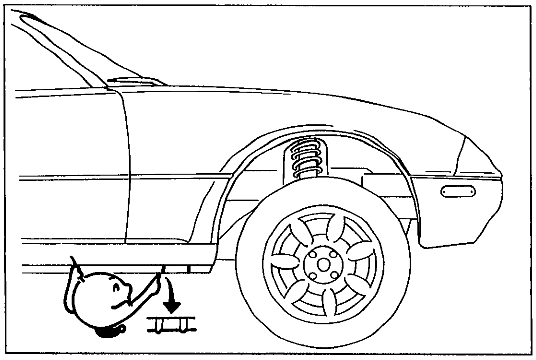


9MUGIX-009

VEHICLE LIFT (2-SUPPORT TYPE) POSITIONS

FRONT

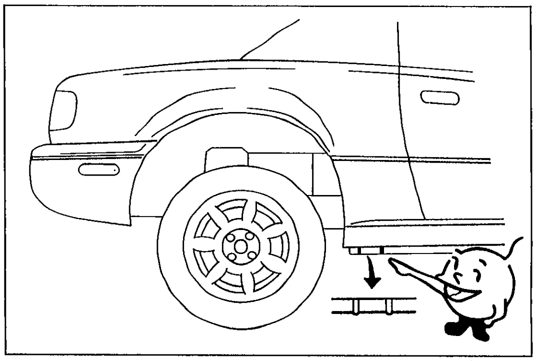
Frame
Side sills



05UGIX-009

REAR

Frame
Side sills



05UGIX-010

TOWING

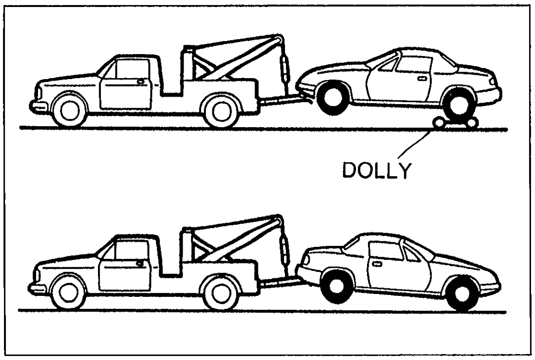
Proper towing equipment is necessary to prevent damage to the vehicle during any towing operation.
Laws and regulations applicable to vehicles in tow must always be observed.
Release the parking brake, place the shift lever in neutral, and set the ignition switch in the ACC position. As a rule, towed vehicles should be pulled with the driving wheels off the ground.

WITH MANUAL TRANSMISSION

If the transmission, rear axle, and steering system are not damaged, the vehicle may be towed on all four wheels. If any of these components is damaged, use a towing dolly.

CAUTION

- **The power assists for the brakes and steering are inoperable while the engine is off.**
- **Do not use the tiedown hooks of the vehicle for towing. These hooks are designed ONLY for transport tiedown. If the tiedown hooks are used for towing, the front or rear skirt and bumper will be damaged.**



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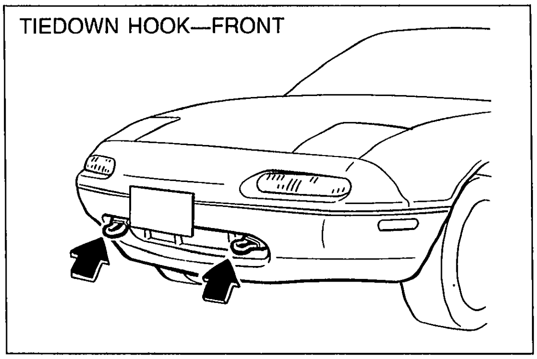
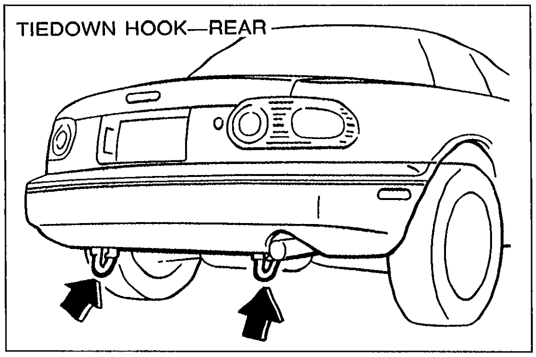
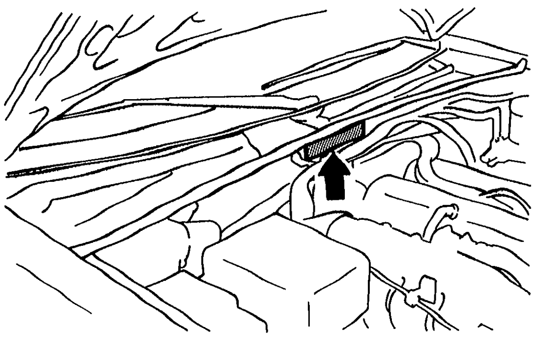


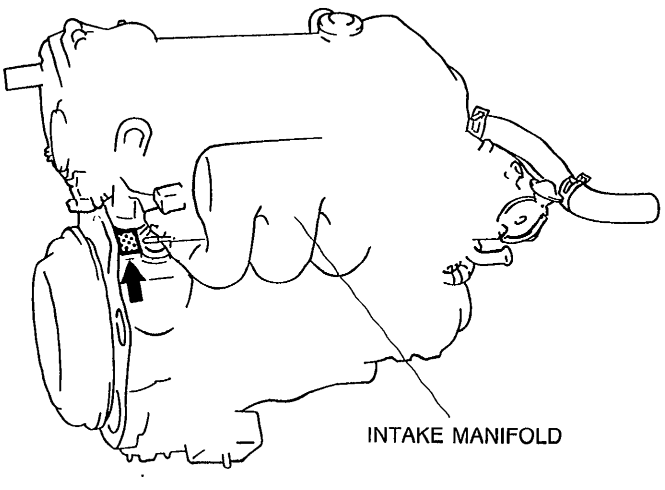


IDENTIFICATION NUMBER LOCATIONS

VEHICLE IDENTIFICATION NUMBER (VIN)



ENGINE MODEL AND NUMBER



9MUGIX-015

UNITS

N·m (m-kg or cm-kg, ft-lb or in-lb)	Torque
rpm	Revolutions per minute
A	Ampere(s)
V	Volt(s)
Ω	Ohm(s) (resistance)
kPa (kg/cm², psi)	Pressure (usually positive)
mmHg (inHg)	Pressure (usually negative)
W	Watt
liters (US qt, Imp qt)	Volume
mm (in)	Length

89U0GX-006

ABBREVIATIONS

ABDC	After bottom dead center
A/C	Air conditioner
ACC	Accessories
ATDC	After top dead center
BBDC	Before bottom dead center
BTDC	Before top dead center
DRL	Daytime running light
ECU	Engine control unit
EGI	Electronic gasoline injection
E/L	Electrical load
EX	Exhaust
IC	Integrated circuit
IN	Intake
INT	Intermittent
ISC	Idle-speed control
LH	Left hand
LSD	Limited slip differential
M	Motor, electric
MIL	Malfunction indicator lamp
M/T	Manual transmission
OFF	Switch off
ON	Switch on
PCV	Positive crankcase ventilation
PPF	Power plant frame
PRC	Pressure regulator control
P/S	Power steering
P/W	Power window
RH	Right hand
SST	Special service tool
TDC	Top dead center
VRIS	Variable resonance induction system

05UGIX-012

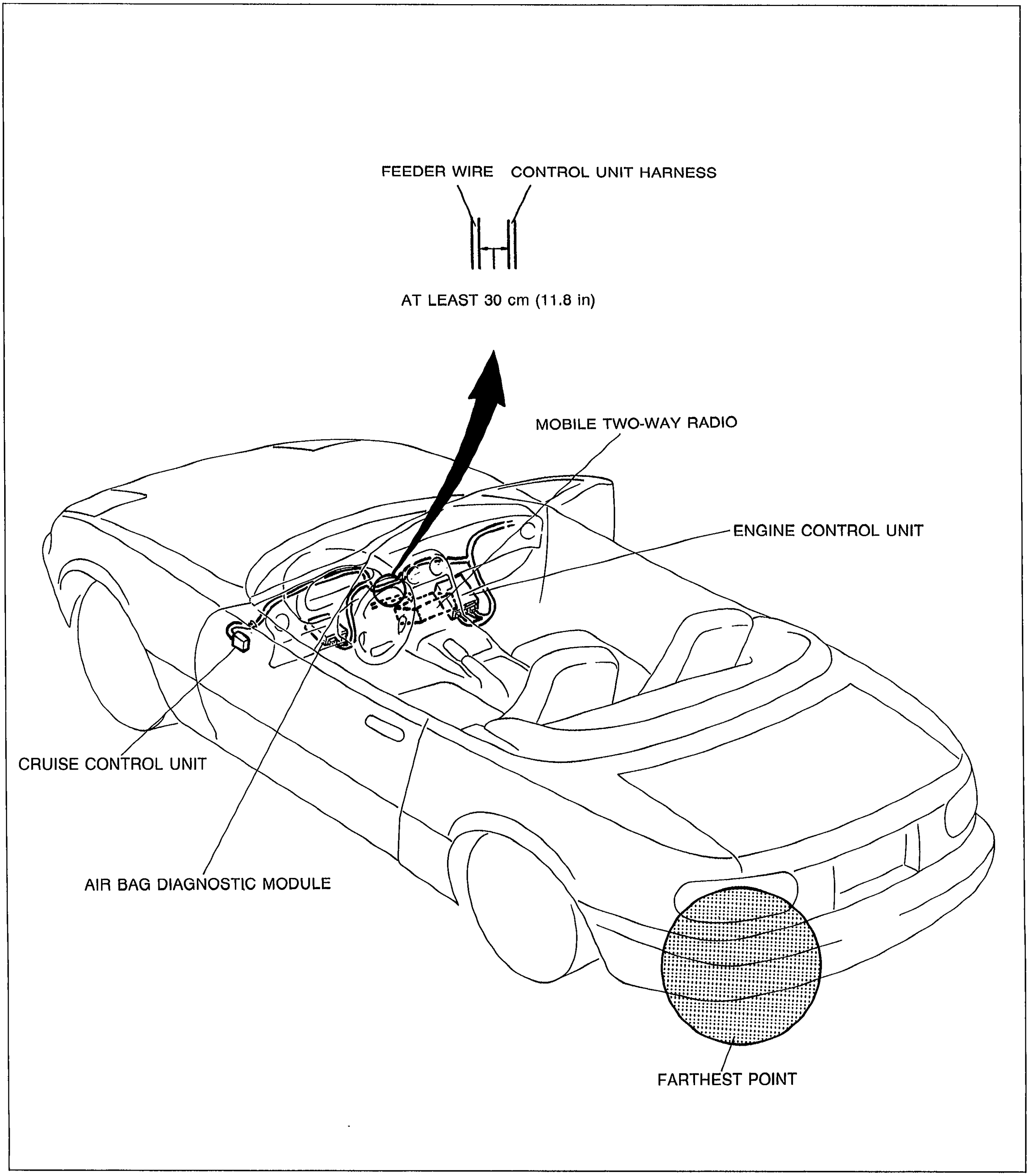
CAUTION

INSTALLATION OF MOBILE TWO-WAY RADIO SYSTEM

If a mobile two-way radio system is installed improperly or if a high-powered type is used, the EGI system and other systems may be affected.

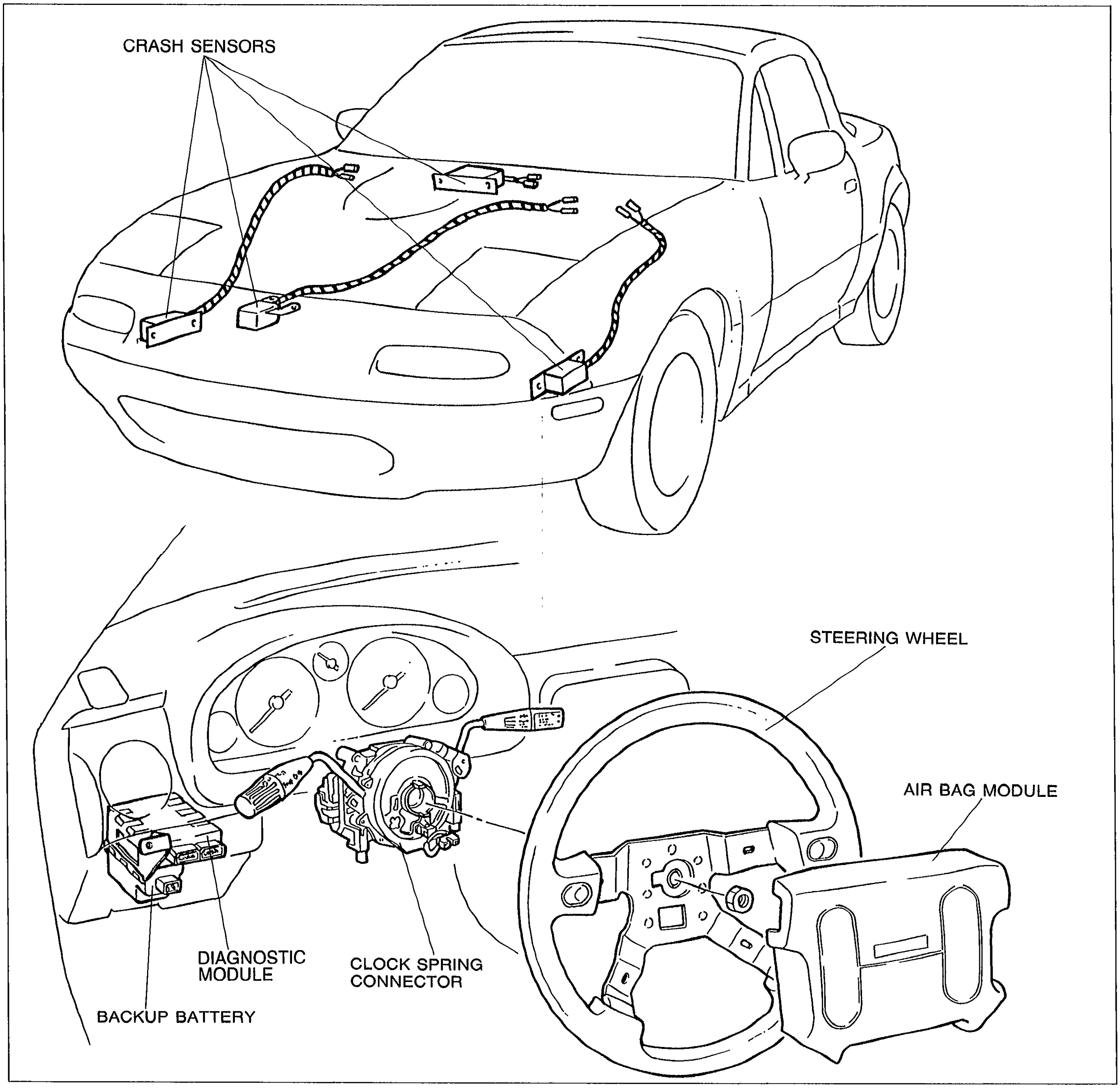
When the vehicle is to be equipped with a mobile two-way radio, observe the following precautions:

1. Install the antenna at the farthest point from control units.
2. Install the antenna feeder as far as possible from the control unit harnesses **(at least 30 cm [11.8 in])**.
3. Ensure that the antenna and feeder are properly adjusted.
4. Do not install a high-powered mobile two-way radio system.


FEEDER WIRE
CONTROL UNIT HARNESS
AT LEAST 30 cm (11.8 in)
MOBILE TWO-WAY RADIO
ENGINE CONTROL UNIT
CRUISE CONTROL UNIT
AIR BAG DIAGNOSTIC MODULE
FARTHEST POINT

05UGIX-013

SERVICE PRECAUTIONS CONCERNING AIR BAG SYSTEM



Before Replacing any Components

Before replacing of any air bag system components, or before disconnecting any connectors of the system, first disconnect the negative battery cable. Then remove the air bag module from the vehicle even if it has not failed.

Prohibitation of Component Disassembly and Wiring Harness Repair

The components of the air bag system are not intended to be disassembled for service.

If a component failure is indicated by the diagnostic module, replace the suspected component after verifying the condition of the connections and the wire harness. **Do not disassemble any components.**

If an open circuit is found by a continuity test, replace the wire harness. **Do not attempt to repair the wiring.**

Handling of Air Bag Module

1. Do not use an ohmmeter for inspection of the air bag module; it may cause an accidental deployment.
2. When carrying a live air bag module, make sure the trim cover is pointed away from your body to prevent injury in the event of an accidental deployment.

3. When placing a live air bag module on any surface, always face the trim cover upward. This will reduce the motion of the module if it is accidentally deployed.
4. When handling a deployed air bag module, wear gloves and safety glasses because the deployed air bag module may display deposits of sodium hydroxide, a product of the gas generant combustion.
5. An air bag module must disposed of only by the proper procedure recommended for the specific situation. (Refer to page T–160.)

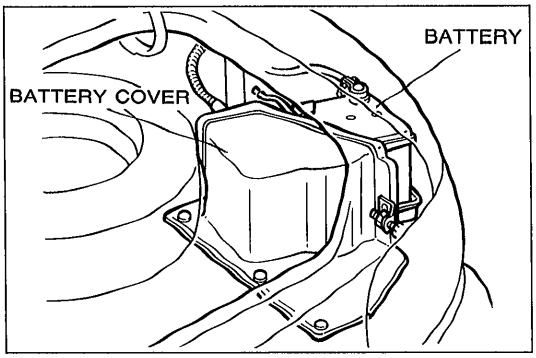
Crash Sensor Installation

1. The angle and direction of the sensor is very important for its proper operation. If a vehicle has been involved in a crash where the its front sheet metal has been damaged, inspect the body structure at the sensor mounting area for deformation. If damaged, restore it to its original shape.
2. When installing a crash sensor, be sure to tighten the mounting bolts to the specified torque to ensure proper grounding. The ground circuit is made directly through the sensor's mounting plate.

Adjustment of Clock Spring Connector

When the steering wheel is removed or the clock spring connector is replaced, the clockspring connector must be properly aligned.
Align the clock spring connector as follows:
(1) Set the front wheels straight ahead.
(2) Turn the clock spring connector clockwise until it stops. Do not force it.
(3) Return it 2.5 turns.
(4) Align (counterclockwise) the mark on the clock spring connector to the outer housing.
(5) Carefully install the steering wheel without disturbing the clockspring connector.

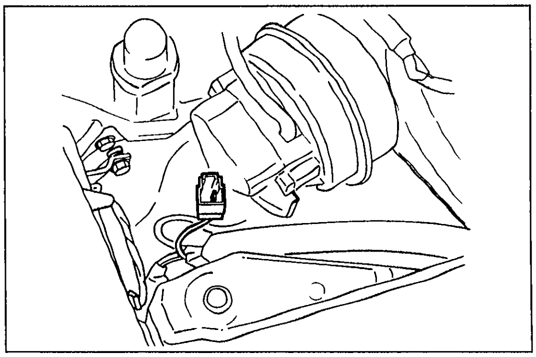
05UGIX-015



05UGIX-016

BATTERY

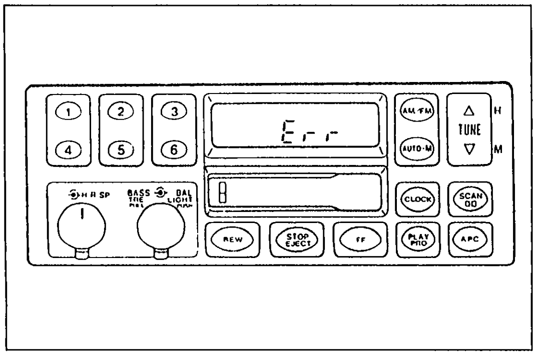
1. The battery is installed in the right rear of the trunk.
2. The battery installed in the MX-5 Miata is unique.
   When a replacement battery is installed, install it with a Mazda genuine battery replacement kit or equivalent. (Refer to page G–10 for replacement.)



05UGIX-017

POWER CONNECTOR IN ENGINE COMPARTMENT

1. When using externally powered test equippment, connect it to the special power connector (Blue: 1-pin) for battery voltage.
2. Do not ground the power connector terminal; the Wiper 20A fuse will be burned.



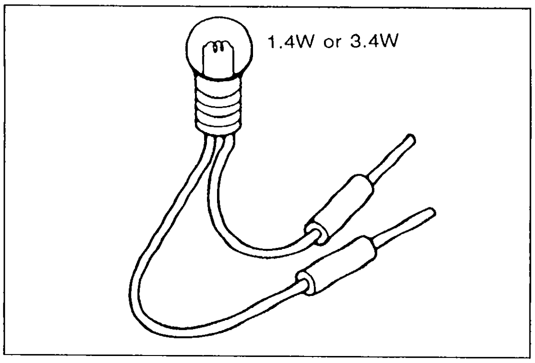
05UGIX-018

AUDIO ANTI-THEFT SYSTEM

An audio with an anti-theft function is optionally available. Before removing the negative battery terminal or disconnecting the audio power source, obtain the code number and deactivate the audio anti-theft system. (Refer to page T–113.)

ELECTRICAL TROUBLESHOOTING TOOLS

Test Light



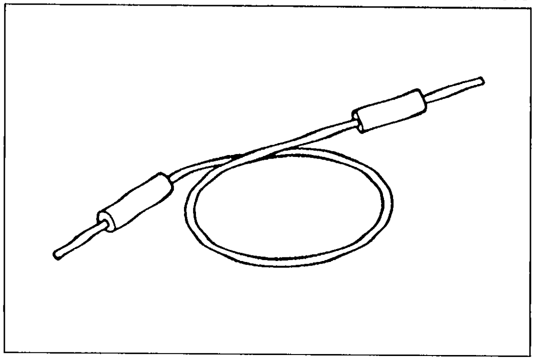
05UGIX-019

The test light, as shown in the figure, uses a 12V bulb. The two lead wires should be connected to probes.
The test light is used for simple voltage checks and for checking for short circuits.

Caution

- **When checking a control unit, never use a bulb over 3.4W.**

Jumper Wire



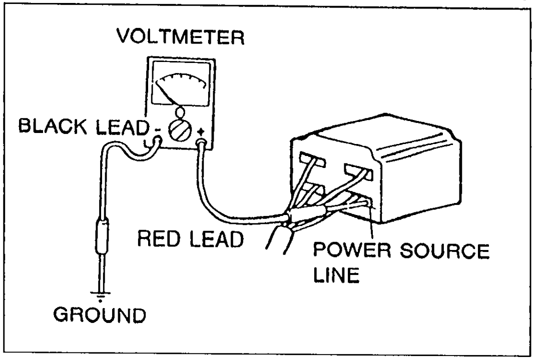
9MUGIX-020

The jumper wire is used for testing by shorting across switch terminals and ground connections.

Caution

- **Do not connect a jumper wire from the power source line to a body ground; this may cause burning or other damage to harnesses or electronic components.**

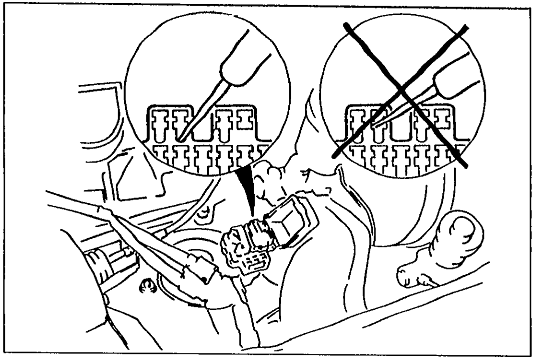
Voltmeter



05UGIX-020

The DC voltmeter is used to measure circuit voltage. A voltmeter with a range of 15V or more is used by connecting the positive (+) probe (red lead wire) to the point where voltage is to be measured and the negative (-) probe (black lead wire) to a body ground.

Diagnosis Connector



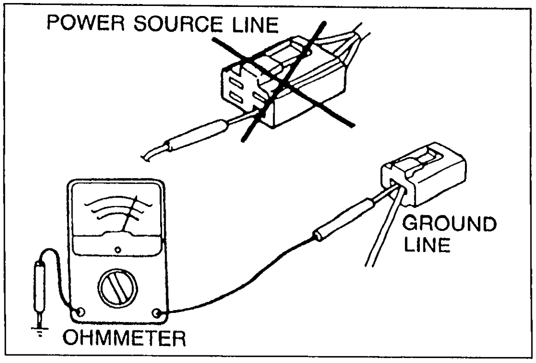
05UGIX-021

Insert the probe into the service hole when connecting a jumper wire to the diagnosis connector.

Caution

- **Do not insert the jumper wire probe into the diagnosis connector terminal, which may damage the terminal.**

Ohmmeter



05UGIX-022

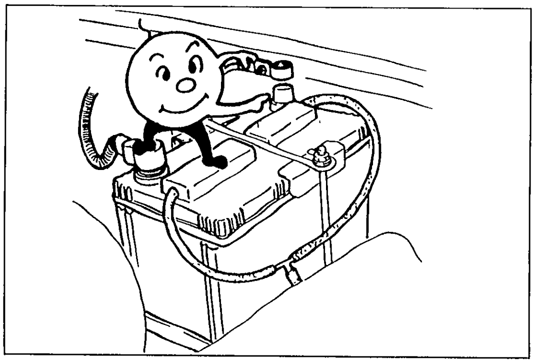
The ohmmeter is used to measure the resistance between two points in a circuit, and to check for continuity and short circuits.

Caution

- **Do not attempt to connect the ohmmeter to any circuit to which voltage is applied; this may burn or otherwise damage the ohmmeter.**

CAUTION WITH ELECTRICAL PARTS

Battery Cable

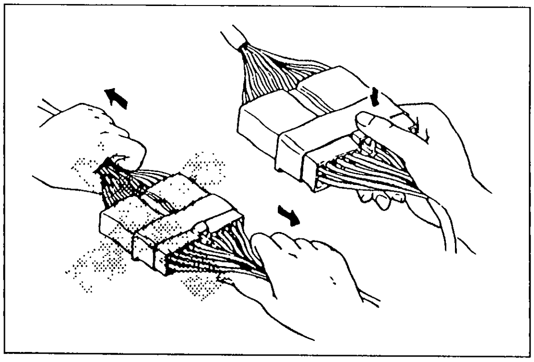


05UGIX-023

Before disconnecting connectors or removing electrical parts, disconnect the negative battery cable.

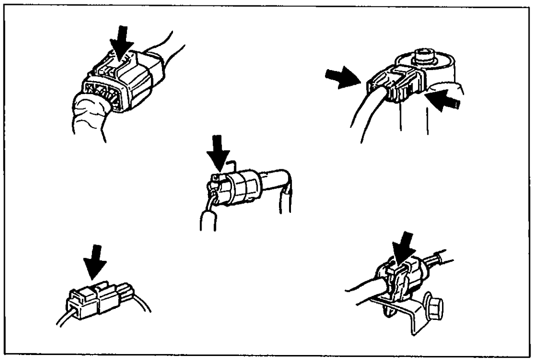
Connectors

Disconnecting connectors



05UGIX-024

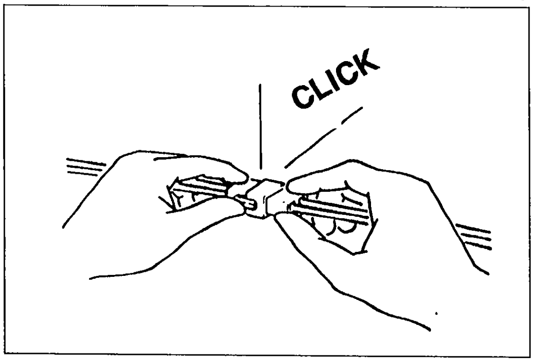
Never pull on the wire harness when disconnecting connectors.



05UGIX-025

Connectors can be disconnected by pressing or pulling the lock lever as shown.

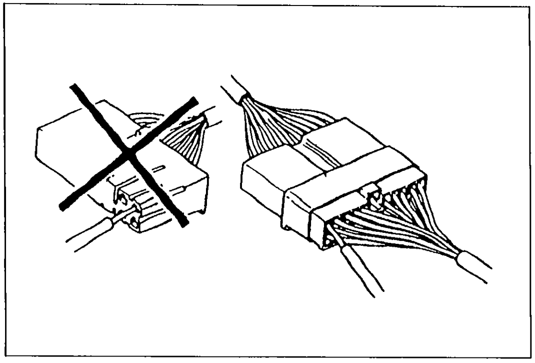
Locking connectors



05UGIX-026

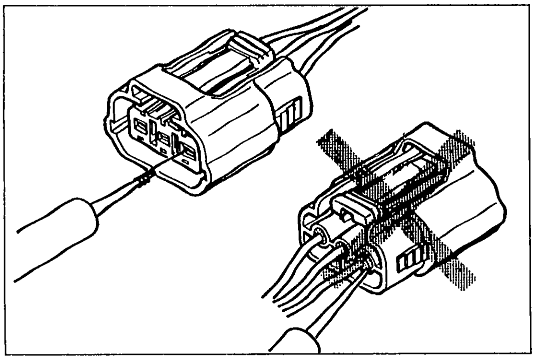
When locking connectors, listen for a click that will indicate they are securely locked.

Inspection



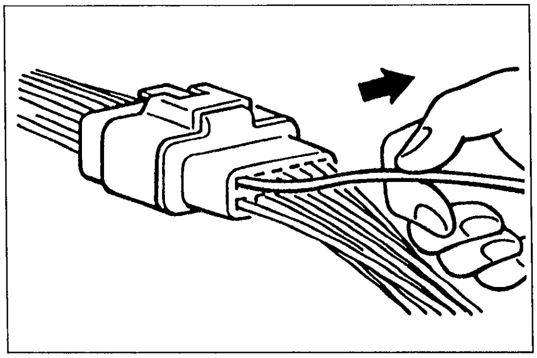
05UGIX-027

1. When a tester is used to check for continuity or to measure voltage, insert the tester probe from the wire harness side.

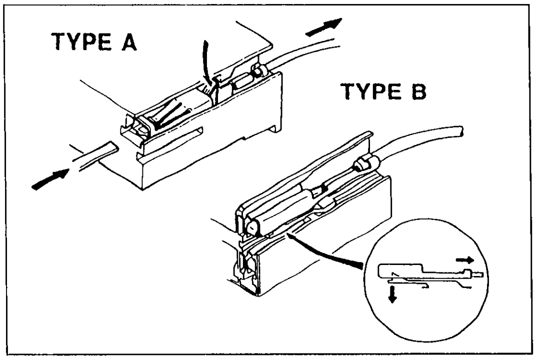

05UGIX-028

2. Check the terminals of waterproof connectors from the connector side, as they cannot be accessed from the wire harness side.

Caution
- **Use fine wire to prevent damage to the terminal.**
- **Do not damage the terminal when inserting the tester lead.**


9MUGIX-027

Terminals
Inspection
Pull lightly on individual wires to check that they are secured in the terminal.

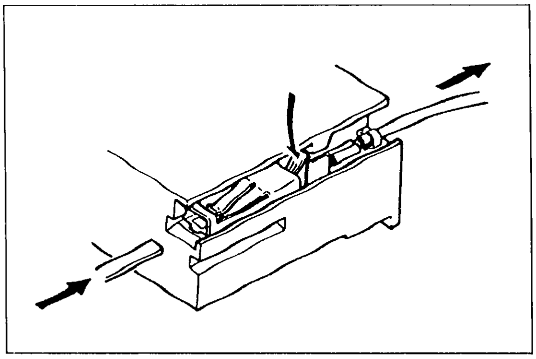


9MUGIX-028

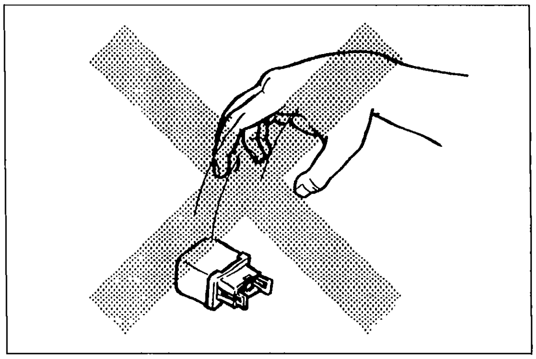
Replacement of terminals
Use the appropriate tools to remove the terminal as shown. When installing the terminal, be sure to insert it until it locks securely.

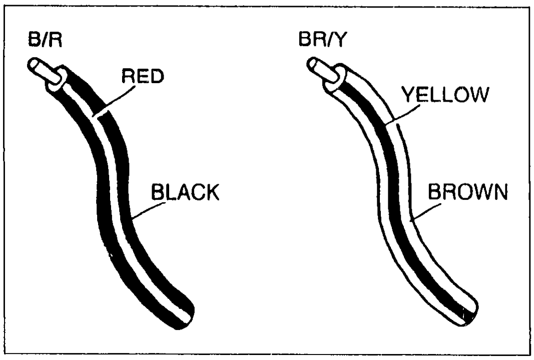
<Female>
Insert a thin piece of metal from the terminal side of the connector, and then, with the terminal locking tab pressed down, pull the terminal out from the connector.

<Male>
Same as the female type.



Sensors, Switches, and Relays
Handle sensors, switches, and relays carefully. Do not drop them or strike them against other objects.


05UGIX-029



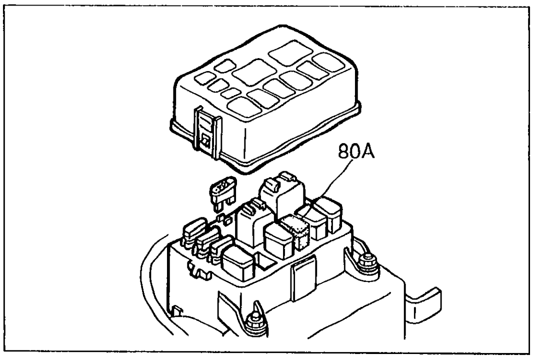
05UGIX-030

Wire Harness

Wiring color codes

Two-color wires are indicated by a two-color code symbol. The first letter indicates the base color of the wire and the second the color of the stripe.

CODE	COLOR		CODE	COLOR
B	Black		O	Orange
BR	Brown		P	Pink
G	Green		R	Red
GY	Gray		V	Violet
L	Blue		W	White
LB	Light Blue		Y	Yellow
LG	Light Green		—	—

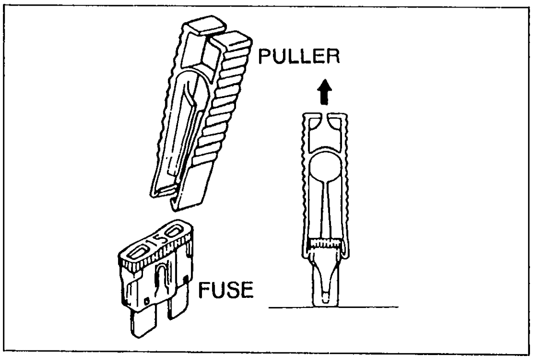


05UGIX-031

Fuse

Replacement

1. When replacing a fuse, be sure to replace it with one of the specified capacity.
   If a fuse again fails after it has been replaced, the circuit probably has a short and the wiring should be checked.
2. Be sure the negative battery terminal is disconnected before replacing a main fuse (80A).



9MUGIX-032

3. When replacing a pullout fuse, use the fuse puller supplied in the fuse box cover.

PRE-DELIVERY INSPECTION AND SCHEDULED MAINTENANCE SERVICES

PRE-DELIVERY INSPECTION .... A– 2
PRE-DELIVERY INSPECTION TABLE .... A– 2
SCHEDULED MAINTENANCE SERVICES ..... A– 3
SCHEDULE 1
(NORMAL DRIVING CONDITIONS) .... A– 3
SCHEDULE 2
(UNIQUE DRIVING CONDITIONS) .... A– 6

05U0AX-001

PRE-DELIVERY INSPECTION

PRE-DELIVERY INSPECTION TABLE

EXTERIOR

INSPECT and **ADJUST**, if necessary, the following items to specification:

☐ Glass, exterior bright metal and paint for damage
☐ Convertible top and detachable hard top (if equipped) for damage
☐ Wheel lug nuts
88—118 N·m (9—12 m-kg, 65—87 ft-lb)
☐ Tire pressure (Refer to Section Q)
☐ All weatherstrips for damage or detachment
☐ Operation of hood release and lock
☐ Operation of fuel lid
☐ Door operation and alignment
☐ Headlight aiming

INSTALL the following parts:

☐ Wheel caps or rings (if equipped)
☐ Outside rearview mirror(s)
☐ Mast antenna

UNDER HOOD—ENGINE OFF

INSPECT and **ADJUST**, if necessary, the following items to specification:

☐ Fuel, coolant and hydraulic lines, fittings, connections and components for leaks
☐ Engine oil level
☐ Power steering fluid level (if equipped)
☐ Brake and clutch master cylinder fluid level
☐ Windshield washer reservoir fluid level
☐ Radiator coolant level and specific gravity

Protection °C (°F)	Specific gravity at 20°C (68°F)
−16 (3)	1.054
−26 (−15)	1.066
−40 (−40)	1.078

☐ Tightness of water hose clamps (including heater hoses)
☐ Tightness of battery terminals
☐ Drive belt tensions (Refer to Section B)
☐ Accelerator cable and linkage for free movement

CLEAN spark plugs

INTERIOR

INSTALL the following parts:

☐ Fuse for accessories

CHECK operation of the following items:

☐ Seat controls (sliding and reclining)
☐ Door locks
☐ Seat belts and warning system
☐ Air bag system using indicator light (if equipped) (Refer to Section T)
☐ Ignition switch and steering lock
☐ Starter interlock switch (clutch pedal)
☐ All lights, including warning and indicator lights
☐ Audible warning system
☐ Horn, wipers and washer
☐ Audio system (if equipped)
☐ Cigarette lighter
☐ Power windows (if equipped)
☐ Heater, defroster and air conditioner at all mode selections (if equipped)

CHECK the following items:

☐ Presence of spare fuses
☐ Upholstery and interior finish

CHECK and **ADJUST**, if necessary, the following items:

☐ Operation and fit of windows
☐ Pedal height and free play of brake and clutch pedals

	Pedal height mm (in)	Free play mm (in)
Clutch pedal	175—185 (6.89—7.28) (with carpet)	0.6—3.1 (0.02—0.12)
Brake pedal	171—181 (6.73—7.13) (with carpet)	4—7 (0.16—0.28)

☐ Parking brake
5—7 notches/98 N (10 kg, 22lb)

UNDER HOOD—ENGINE RUNNING AT OPERATING TEMPERATURE

CHECK the following items:

☐ Initial ignition timing
10° ± 1° BTDC (with diagnosis connector TEN and GND terminals connected)
(Refer to page F–75)
☐ Idle speed
850 ± 50 rpm (with diagnosis connector TEN and GND terminals connected)
(Refer to page F–76)

ON HOIST

CHECK the following items:

☐ Underside fuel, coolant and hydraulic lines, fittings, connections and components for leaks
☐ Tires for cuts or bruises
☐ Steering linkage, suspension, exhaust system and all underside hardware for looseness or damage
☐ Manual transmission oil level
☐ Rear axle oil level

ROAD TEST

CHECK the following items:

☐ Brake operation
☐ Clutch operation
☐ Steering control
☐ Operation of meters and gauges
☐ Squeaks, rattles and unusual noise
☐ Overall engine performance
☐ Seat belt emergency locking retractors
☐ Cruise control system (if equipped)

AFTER ROAD TEST

REMOVE seat and floor mat protective covers
CHECK for necessary owner information materials, tools and spare tire in vehicle

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SCHEDULED MAINTENANCE SERVICES

Follow Schedule 1 (Normal Driving Conditions) if the vehicle is mainly operated where none of the following conditions apply.
Follow Schedule 2 (Unique Driving Conditions) if any of the conditions below apply:

- Repeated short-distance driving.
- Driving in dusty conditions.
- Driving with extended use of brakes.
- Driving in areas where road salt or other corrosive materials are used.
- Driving on rough and/or muddy roads.
- Extended periods of idling and/or low-speed operation.
- Driving for prolonged periods in cold temperatures and/or extremely humid climates.

SCHEDULE 1 (NORMAL DRIVING CONDITIONS)

Chart symbols:
I : Inspect, and if necessary correct, clean or replace
R: Replace or change
T : Tighten

Remarks:
After 60 months or 60,000 miles (96,000 km), continue to follow the described maintenance at the recommended intervals.
As for * marked items in this maintenance chart, note the following points:
*1 Replacement of the timing belt is required every 60,000 miles (96,000 km). Failure to replace the timing belt may result in damage to the engine.
*2 This maintenance is recommended by Mazda. However, it is not necessary for emission warranty coverage or manufacturer recall liability.
*3 This maintenance is required for all states except California. However, we recommend that it also be performed on California vehicles.

SCHEDULE 1 (NORMAL DRIVING CONDITIONS)

Interval Maintenance operation	Number of months or miles (km), whichever comes first									Service data and inspection point	Page
	Months	**7.5**	**15**	**22.5**	**30**	**37.5**	**45**	**52.5**	**60**		
	Miles	**7,500**	**15,000**	**22,500**	**30,000**	**37,500**	**45,000**	**52,500**	**60,000**		
	Kilometers	**12,000**	**24,000**	**36,000**	**48,000**	**60,000**	**72,000**	**84,000**	**96,000**		
ENGINE											
Engine oil		R	R	R	R	R	R	R	R	• Oil pan capacity: 3.2 liters (3.4 US qt, 2.8 Imp qt)	D–5
Engine oil filter		R	R	R	R	R	R	R	R	• Oil filter capacity: 0.17 liters (0.18 US qt, 0.15 Imp qt)	D–5
Drive belts					I				I	• Cracks or damage • Tension	B–5 G–19
Air cleaner element					R				R	—	F–75
Engine timing belt *1		Replace every 60,000 miles (96,000 km)								—	B–12
IGNITION SYSTEM											
Spark plugs					R				R	• Plug gap: 1.0—1.1mm (0.039—0.043 in) • Recommended spark plugs: NGK: BKR5E-11, BKR6E-11, BKR7E-11 Nippon Denso: K16PR-U11, K20PR-U11, K22PR-U11	G–3
FUEL SYSTEM											
Idle speed					I*3				I	• Idle speed: 850 ± 50 rpm	F–72
Fuel filter									R	—	F–101
Fuel lines					I*2				I	• Fittings, connections and components for leaks	F–96
COOLING SYSTEM											
Cooling system					I				I	• Hoses for cracks or wear • Coolant level	E–4
Engine coolant					R				R	—	E–4

SCHEDULE 2 (UNIQUE DRIVING CONDITIONS) (Cont'd)

Maintenance operation / Interval	Number of months or miles (km), whichever comes first												Service data and inspection point	Page
Months	5	10	15	20	25	30	35	40	45	50	55	60		
Miles (x1,000)	5	10	15	20	25	30	35	40	45	50	55	60		
Km (x1,000)	8	16	24	32	40	48	56	64	72	80	88	96		
CHASSIS AND BODY														
Brake lines, hoses, and connections						I						I	• Proper attachment and connections	P–6
Disc brakes			I			I			I			I	• Disc plate thickness: 16.0mm (0.63 in)—Minimum • Pad thickness: 1.0mm (0.04 in)—Minimum	P–20, 24
Steering operation and linkages						I						I	• Free play: 0—30mm (0—1.18 in) • Operation and looseness • Fluid leakage or oozing	N–8
Front suspension ball joints						I						I	• Damage, looseness and grease leakage	R–15, 17
Manual transmission oil						R						R	• Oil capacity: 2.0 liters (2.1 US qt, 1.8 Imp qt)	J–3
Rear axle oil						R						R	• Oil capacity: 0.65 liters (0.69 US qt, 0.57 Imp qt)	M–23
Bolts and nuts on chassis and body			T			T			T			T	• Retighten all loose bolts and nuts	—
Exhaust system heat shield						I						I	• Insulator clearance between body and exhaust system	F–115
AIR CONDITIONER SYSTEM														
Refrigerant	Inspect refrigerant amount annually												• Refrigerant pressure: Low pressure: 147—294 kPa ($1.5—3.0\ kg/cm^2$, 21—43 psi) High pressure: 1,177—1,619 kPa ($12.0—16.5\ kg/cm^2$, 171—235 psi)	U–49
Compressor	Inspect operation annually												—	—

SCHEDULE 2 (UNIQUE DRIVING CONDITIONS)

Chart symbols:

I : Inspect, and if necessary correct, clean or replace
R : Replace or change
T : Tighten

Remarks:

After 60 months or 60,000 miles (96,000 km), continue to follow the described maintenance at the recommended intervals.

As for * marked items in this maintenance chart note the following points:

*1 Replacement of the timing belt is required every 60,000 miles (96,000 km). Failure to replace the timing belt may result in damage to the engine.
*2 This maintenance is recommended by Mazda. However, it is not necessary for emission warranty coverage or manufacturer recall liability.
*3 This maintenance is required for all states except California. However, we recommend that it also be performed on California vehicles.

SCHEDULE 2 (UNIQUE DRIVING CONDITIONS)

Interval Maintenance operation	Number of months or miles (km), whichever comes first													Service data and inspection point	Page
	Months	5	10	15	20	25	30	35	40	45	50	55	60		
	Miles (x1,000)	5	10	15	20	25	30	35	40	45	50	55	60		
	Km (x1,000)	8	16	24	32	40	48	56	64	72	80	88	96		
ENGINE															
Engine oil		R	R	R	R	R	R	R	R	R	R	R	R	• Oil pan capacity: 3.2 liters (3.4 US qt, 2.8 Imp qt)	D–5
Engine oil filter		R	R	R	R	R	R	R	R	R	R	R	R	• Oil filter capacity: 0.17 liters (0.18 US qt, 0.15 Imp qt)	D–5
Drive belts							I						I	• Cracks or damage • Tension	B–5 G–19
Air cleaner element				I*3			R			I*3			R	—	F–75
Engine timing belt *1		Replace every 60,000 miles (96,000 km)												—	B–12
IGNITION SYSTEM															
Spark plugs							R						R	• Plug gap: 1.0—1.1mm (0.039—0.043 in) • Recommended spark plugs: NGK: BKR5E-11, BKR6E-11, BKR7E-11 Nippon Denso: K16PR-U11, K20PR-U11, K22PR-U11	G–3
FUEL SYSTEM															
Idle speed							I*3						I	• Idle speed: 850 ± 50 rpm	F–72
Fuel filter													R	—	F–101
Fuel lines							I*2						I	• Fittings, connections and components for leaks	F–96
COOLING SYSTEM															
Cooling system							I						I	• Hoses for cracks or wear • Coolant level	E–4
Engine coolant							R						R	—	E–4

SCHEDULE 1 (NORMAL DRIVING CONDITIONS) (Cont'd)

Interval Maintenance operation	Number of months or miles (km), whichever comes first									Service data and inspection point	Page
	Months	7.5	15	22.5	30	37.5	45	52.5	60		
	Miles	7,500	15,000	22,500	30,000	37,500	45,000	52,500	60,000		
	Kilometers	12,000	24,000	36,000	48,000	60,000	72,000	84,000	96,000		
CHASSIS AND BODY											
Brake lines, hoses, and connections					I				I	• Proper attachment and connections	P–6
Disc brakes					I				I	• Disc plate thickness: 16.0mm (0.63 in)—Minimum • Pad thickness: 1.0mm (0.04 in)—Minimum	P–20, 24
Steering operation and linkages					I				I	• Free play: 0—30mm (0—1.18 in) • Operation and looseness • Fluid leakage or oozing	N–8
Front suspension ball joints					I				I	• Damage, looseness and grease leakage	R–15, 17
Manual transmission oil									R	• Oil capacity: 2.0 liters (2.1 US qt, 1.8 Imp qt)	J–3
Rear axle oil									R	• Oil capacity: 0.65 liters (0.69 US qt, 0.57 Imp qt)	M–23
Bolts and nuts on chassis and body					T				T	• Retighten all loose bolts and nuts	—
Exhaust system heat shield					I				I	• Insulator clearance between body and exhaust system	F–115
AIR CONDITIONER SYSTEM											
Refrigerant		Inspect refrigerant amount annually								• Refrigerant pressure: Low pressure: 147—294 kPa ($1.5—3.0\ kg/cm^2$, 21—43 psi) High pressure: 1,177—1,619 kPa ($12.0—16.5\ kg/cm^2$, 171—235 psi)	U–49
Compressor		Inspect operation annually								—	—

ENGINE

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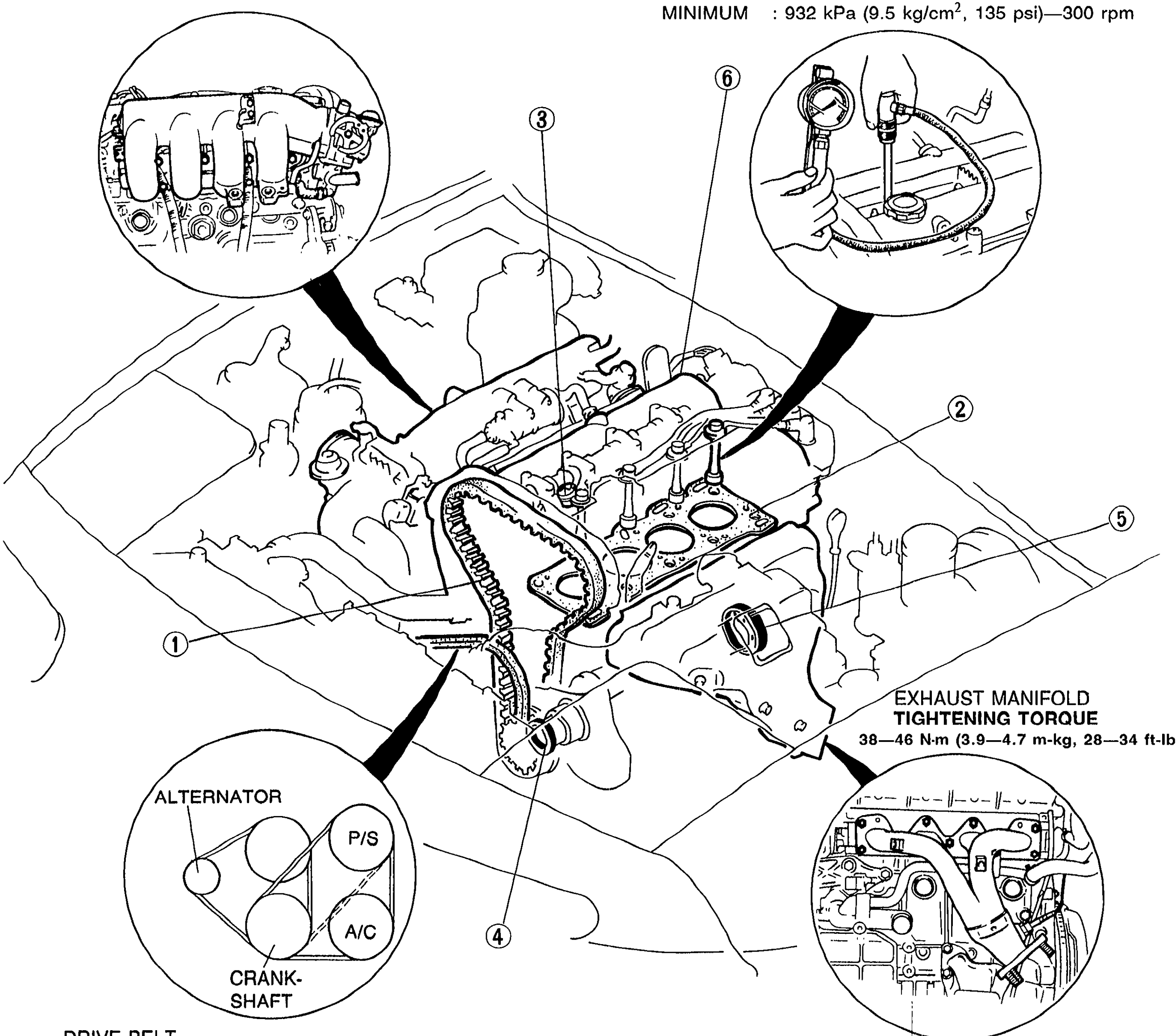
INDEX

INTAKE MANIFOLD
TIGHTENING TORQUE
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

COMPRESSION
INSPECTION, PAGE B—10
STANDARD : 1,324 kPa (13.5 kg/cm², 192 psi)—300 rpm
MINIMUM : 932 kPa (9.5 kg/cm², 135 psi)—300 rpm



EXHAUST MANIFOLD
TIGHTENING TORQUE
38—46 N·m (3.9—4.7 m-kg, 28—34 ft-lb)

DRIVE BELT
ADJUSTMENT, PAGE B—6

ENGINE OIL INSPECTION,
SERVICE, SECTION D

ENGINE COOLANT INSPECTION,
SERVICE, SECTION E

DEFLECTION mm (in)

DRIVE BELT	NEW	USED
ALTERNATOR	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)
P/S, P/S + A/C	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)
A/C	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)

05U0BX-002

1. Timing belt
    Removal / Installation .... page B–12
2. Cylinder head gasket
    Replacement .... page B–16
3. HLA
    Removal / Installation .... page B–20
4. Front oil seal
    Replacement .... page B–24
5. Rear oil seal
    Replacement .... page B–26
6. Engine
    Removal .... page B–28
    Engine stand mounting .... page B–33
    Disassembly .... page B–36
    Inspection / Repair...................... page B–48
    Assembly.................................. page B–60
    Engine stand dismounting .... page B–82
    Installation................................ page B–84

OUTLINE

SPECIFICATIONS

Item \ Engine			B6 DOHC
Type			Gasoline, 4-cycle
Cylinder arrangement and number			In-line, 4-cylinders
Combustion chamber			Pentroof
Valve system			DOHC, belt-driven
Displacement cc (cu in)			1,597 (97.42)
Bore and stroke mm (in)			78.0 x 83.6 (3.07 x 3.29)
Compression ratio			9.4
Compression pressure kPa (kg/cm², psi)-rpm			1,324 (13.5, 192)-300
Valve timing	IN	Open BTDC	5°
		Close ABDC	51°
	EX	Open BBDC	53°
		Close ATDC	15°
Valve clearance mm (in)		IN	0: Maintenance-free
		EX	0: Maintenance-free
Idle speed rpm			850 ± 50 (Neutral)*
Ignition timing BTDC			10° ± 1°*
Firing order			1—3—4—2

* With System Selector (49 B019 9A0) test switch at SELF TEST.

05U0BX-003

TROUBLESHOOTING GUIDE

Problem	Possible Cause	Remedy	Page
Difficult starting	**Malfunction of engine-related components** Burned valve Worn piston, piston ring, or cylinder Failed cylinder head gasket	 Replace Replace or repair Replace	 B–49 B–54, 56 B–16
	Malfunction of fuel system	Refer to Section F	
	Malfunction of ignition system	Refer to Section G	
Poor idling	**Malfunction of engine-related components** Malfunction of HLA* Poor valve-to-valve seat contact Failed cylinder head gasket	 Replace Replace or repair Replace	 B–20 B–51 B–16
	Malfunction of fuel system	Refer to Section F	
	Malfunction of ignition system	Refer to Section G	
Excessive oil consumption	**Oil working up** Worn piston ring groove or sticking piston ring Worn piston or cylinder	 Replace Replace or repair	 B–56 B–54, 56
	Oil working down Worn valve seal Worn valve stem or guide	 Replace Replace	 B–40, 71 B–49
	Oil leakage	Refer to Section D	

TROUBLESHOOTING GUIDE

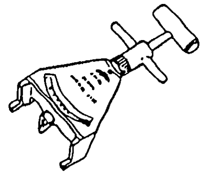
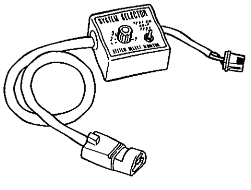
Problem	Possible Cause	Remedy	Page
Insufficient power	**Insufficient compression**		
	Malfunction of HLA*	Replace	B–20
	Compression leakage from valve seat	Repair	B–51
	Seized valve stem	Replace	B–49
	Weak or broken valve spring	Replace	B–52
	Failed cylinder head gasket	Replace	B–16
	Cracked or distorted cylinder head	Replace	B–48
	Sticking, damaged, or worn piston ring	Replace	B–56
	Cracked or worn piston	Replace	B–56
	Malfunction of fuel system	Refer to Section F	
	Malfunction of ignition system	Refer to Section G	
	Others		
	Slipping clutch	Refer to Section H	
	Dragging brakes	Refer to Section P	
	Wrong size tires	Refer to Section Q	
Abnormal combustion	**Malfunction of engine-related components**		
	Malfunction of HLA*	Replace	B–20
	Sticking or burned valve	Replace	B–49
	Weak or broken valve spring	Replace	B–52
	Carbon accumulation in combustion chamber	Eliminate carbon	—
	Malfunction of fuel system	Refer to Section F	
	Malfunction of ignition system	Refer to Section G	
Engine noise	**Crankshaft- or bearing-related parts**		
	Excessive main bearing oil clearance	Replace or repair	B–63
	Main bearing seized or heat-damaged	Replace	B–58
	Excessive crankshaft end play	Replace or repair	B–64
	Excessive connecting rod bearing oil clearance	Replace or repair	B–65
	Connecting rod bearing seized or heat-damaged	Replace	B–58
	Piston-related parts		
	Worn cylinder	Replace or repair	B–54
	Worn piston or piston pin	Replace	B–57
	Seized piston	Replace	B–56
	Damaged piston ring	Replace	B–56
	Bent connecting rod	Replace	B–57
	Valves or timing-related parts		
	Malfunction of HLA*	Replace	B–20
	Broken valve spring	Replace	B–52
	Excessive valve guide clearance	Replace	B–49
	Malfunction of cooling system	Refer to Section E	
	Malfunction of fuel system	Refer to Section F	
	Others		
	Malfunction of water pump bearing	Refer to Section E	
	Improper drive belt tension	Adjust	B– 6
	Malfunction of alternator bearing	Refer to Section G	
	Exhaust gas leakage	Refer to Section F	
	Malfunction of timing belt tensioner	Replace	B–12

05U0BX-004

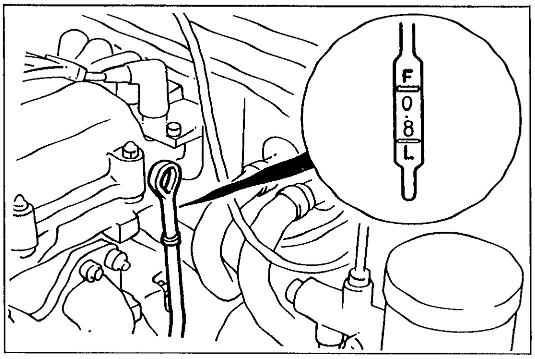
* Tappet noise may occur if the engine has set idle for an extended period. The noise should dissipate after the engine has reached normal operating temperature. (HLA troubleshooting: Refer to page B–7)

ENGINE TUNE-UP PROCEDURE

PREPARATION
SST

49 9200 020 Tension gauge, V-ribbed belt 	For inspection of drive belt tension	49 B019 9A0 System selector 	For inspection of ignition timing and idle speed

05U0BX-005



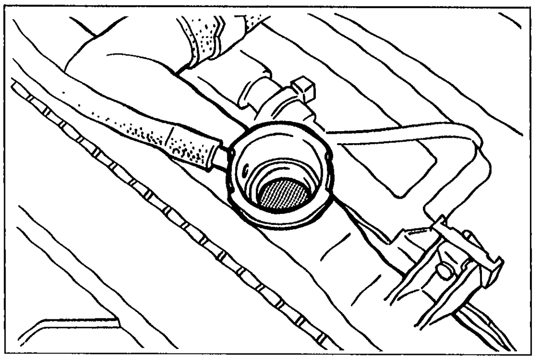
05U0BX-006

ENGINE OIL
Inspection

1. Be sure the vehicle is on level ground.
2. Warm up the engine to normal operating temperature and stop it.
3. Wait for five minutes.
4. Remove the oil level gauge and check the oil level and condition.
5. Add or replace oil if necessary.

Note

- **The distance between the L and F marks on the level gauge represents 0.8 liter (0.85 US qt, 0.70 Imp qt).**



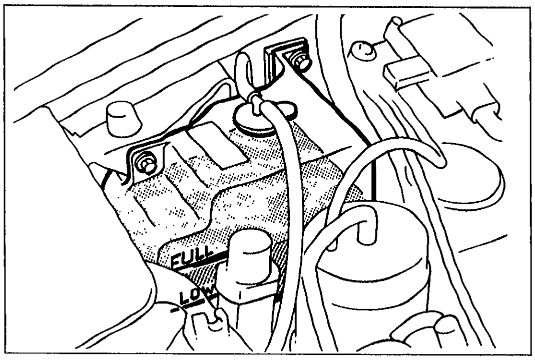
05U0BX-007

ENGINE COOLANT
Inspection
Coolant level (engine cold)

Warning

- **Never remove the radiator cap while the engine is hot.**
- **Wrap a thick cloth around the cap when removing it.**

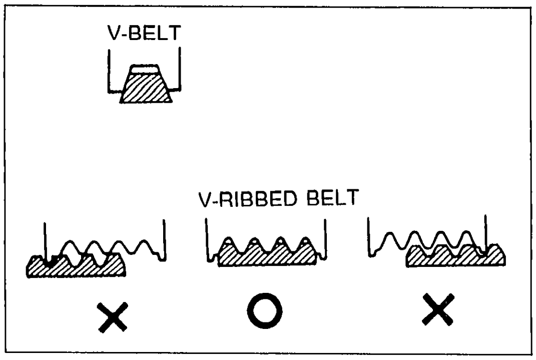
1. Verify that the coolant level is near the radiator filler neck.
2. Verify that the coolant level in the coolant reservoir is between the FULL and LOW marks.
3. Add coolant if necessary.



05U0BX-008

Coolant quality

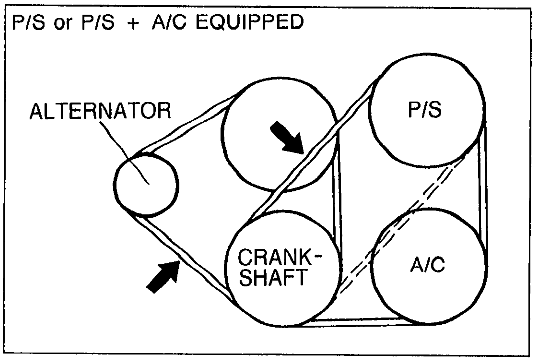
1. Verify that there is no buildup of rust or scale around the radiator cap or radiator filler neck.
2. Verify that the coolant is free of oil.
3. Replace the coolant if necessary.



05U0BX-009

DRIVE BELT
Inspection

1. Remove the air intake pipe.
2. Check the drive belts for wear, cracks, and fraying. Replace if necessary.
3. Verify that the drive belts are correctly mounted on the pulleys.



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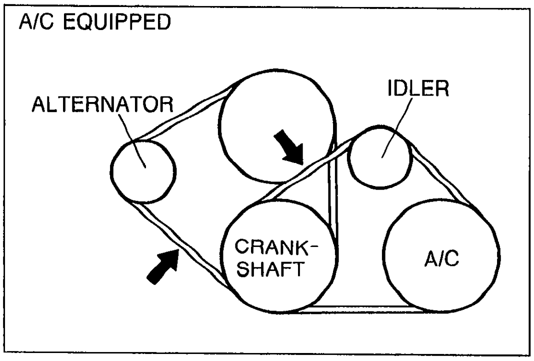


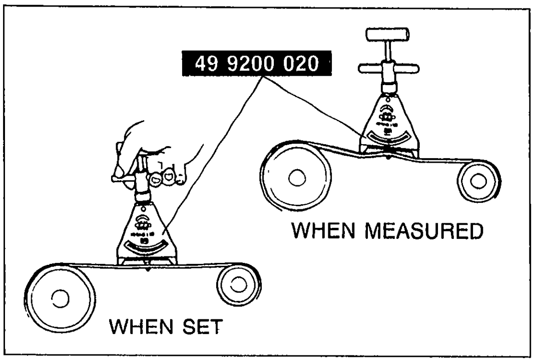
05U0BX-011

4. Check the drive belt deflection by applying moderate pressure **(98 N, 10 kg, 22 lb)** midway between the pulleys, as shown. Adjust if necessary.

Deflection

mm (in)

Drive belt	New	Used
Alternator	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)
P/S, P/S + A/C	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)
A/C	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)



05U0BX-012

5. Check the drive belt tension with the **SST** (tension gauge).

Note
- **Belt tension can be measured between any pulleys.**

Tension

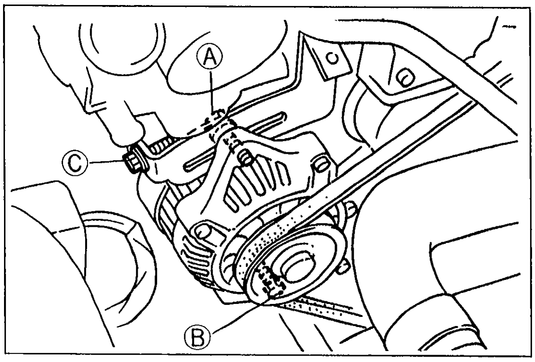
N (kg, lb)

Drive belt	New	Used
Alternator	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)
P/S, P/S + A/C	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)
A/C	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)

6. Install the air intake pipe.

Adjustment

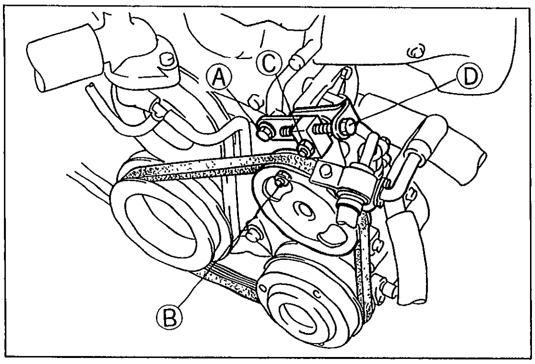
Caution
- **If a new belt is used, adjust the belt deflection at the midpoint of new belt specification.**



05U0BX-013

(1) Alternator belt
If necessary, loosen the alternator bolts Ⓐand Ⓑand adjust the belt deflection by turning the adjusting bolt Ⓒ.

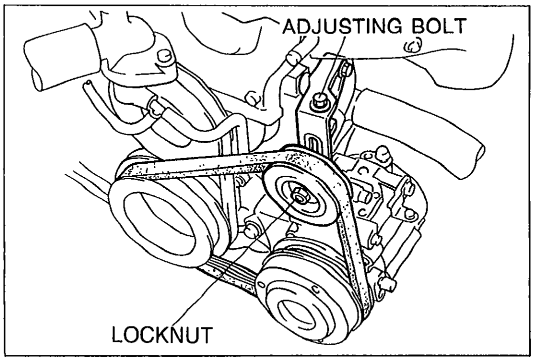
Tightening torque
Ⓐ: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)
Ⓑ: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)



05U0BX-014

(2) P/S belt, P/S + A/C belt
If necessary, loosen the P/S oil pump bolt Ⓐand nuts Ⓑand Ⓒand adjust the belt deflection by turning the adjusting bolt Ⓓ.

Tightening torque
Ⓐ: 31—46 N·m (3.2—4.7 m-kg, 23—34 ft-lb)
Ⓑ: 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)
Ⓒ: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)



05U0BX-015

(3) A/C belt
If necessary, loosen the locknut and adjust the belt deflection by turning the adjusting bolt.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

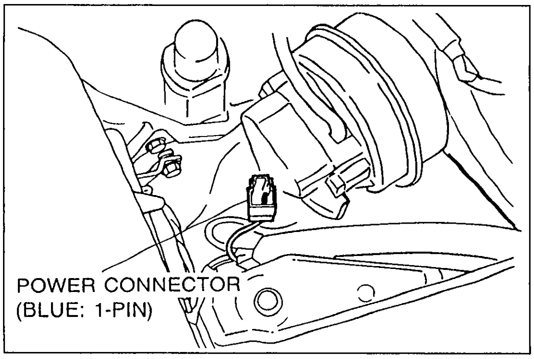
HLA

Problem	Possible Cause	Remedy
1. Tappet noise occurs when engine started immediately after engine oil replacement 2. Tappet noise occurs when engine started after setting more than one day 3. Tappet noise occurs when engine started after cranking by starter more than three seconds 4. Tappet noise occurs when engine started after HLA replaced	No oil in HLA	Tappet noise should dissipate from within a few seconds to ten minutes
5. Tappet noise continues more than ten minutes	Low oil pressure	Check oil pressure (Refer to Section D)
	Defective HLA	Inspect HLA (Refer to page B–54)
6. Tappet noise occurs at idle after high-speed driving	Low oil level	Add engine oil
	Degenerated oil	Replace engine oil

05U0BX-016

IGNITION TIMING, IDLE SPEED

Preparation



05U0BX-278

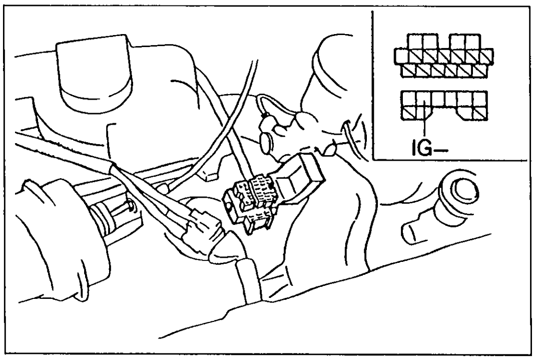
1. Check the engine condition (spark plugs, leaks in hoses, etc.).
2. Warm up the engine to normal operating temperature.
3. Make sure all accessories are OFF.

Note

- **When using an externally powered timing light and/or tachometer, connect it to the power connector (Blue: 1-pin).**

Caution

- **Do not ground the power connector terminal (Blue: 1-pin); the wiper 20A fuse will be burned.**

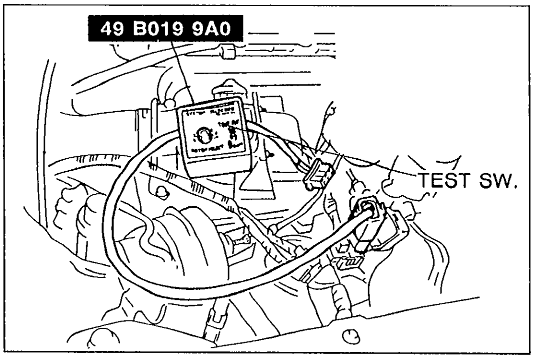


05U0BX-288

4. Connect a timing light and a tachometer to the diagnosis connector terminal IG–.

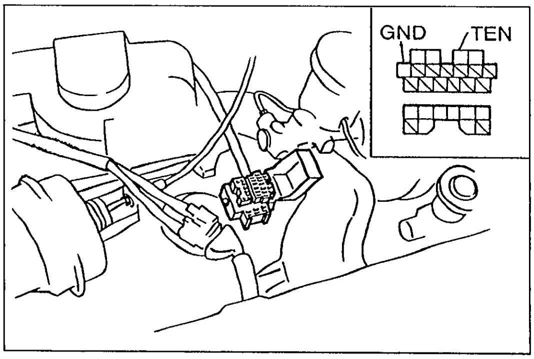
Caution

- **Be extremely careful when making connections to the diagnosis connector because a mistaken connection will cause a malfunction.**



05U0BX-279

5. Connect the **SST**.
6. Set the **SST** switch Ⓐ to 1 position and test switch to SELF TEST position.

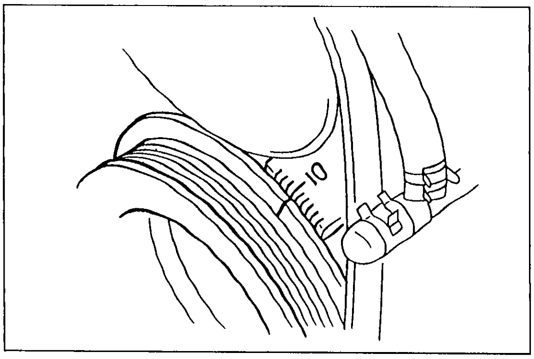


05U0BX-280

Note

- **If the SST is not used, jump across the (TEN) terminal and the (GND) terminal of the diagnosis connector.**

Ignition Timing
Inspection / Adjustment



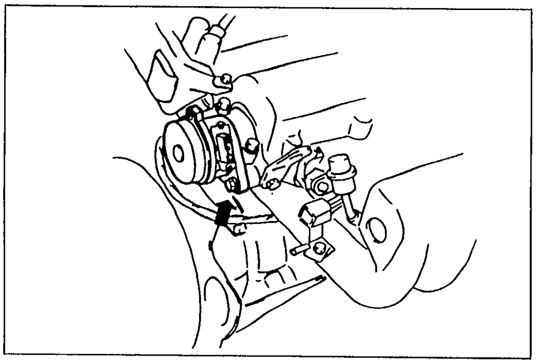
05U0BX-281

1. Check the idle speed and set it to specification if necessary.

   Idle speed: 850 ± 50 rpm (Neutral)

2. Verify that the timing mark (Yellow) on the crankshaft pulley is aligned with the timing belt lower cover mark.

   Ignition timing: 10° ± 1° BTDC (at idle speed)

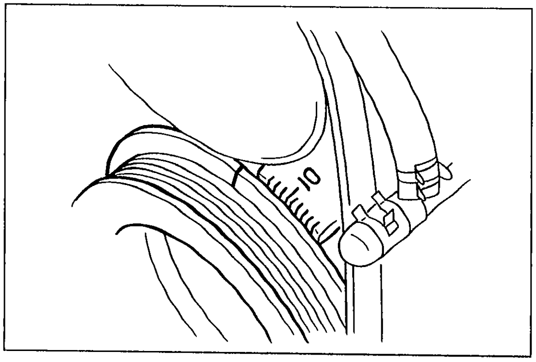


05U0BX-282

3. If the marks are not aligned, loosen the crank angle sensor lock bolt and adjust by turning the crank angle sensor.
4. Tighten the crank angle sensor lock bolt.

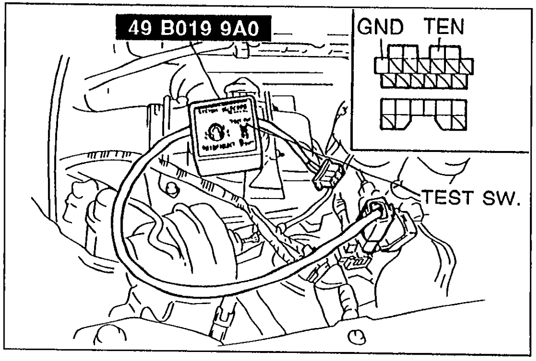
Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

5. After adjusting the ignition timing, disconnect the **SST** or jumper wire from the diagnosis connector.



05U0BX-283

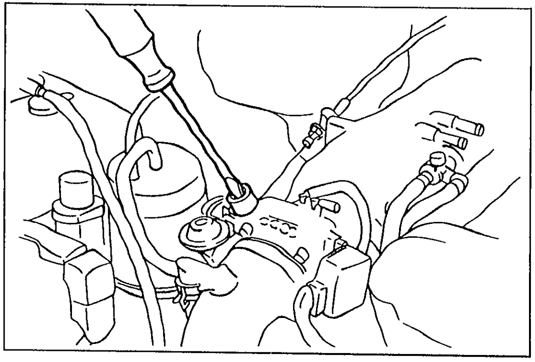
6. Increase the engine speed and verify that the ignition timing advances.



05U0BX-284

Idle Speed
Inspection / Adjustment

1. Connect the **SST** or jumper wire to the diagnosis connector. (Refer to page B–8.)



05U0BX-285

2. Verify that the idle speed is within specification.

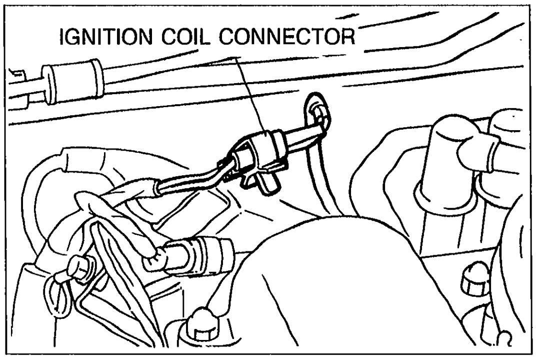
Idle speed: 850 ± 50 rpm (Neutral)

3. If the idle speed is not within specification, remove the blind cap from the air adjusting screw and adjust it.
4. After adjusting the idle speed, install the blind cap and disconnect the **SST** or jumper wire from the diagnosis connector.

COMPRESSION

If the engine exhibits low power, poor fuel economy, or poor idle, check the following:
1. Ignition system (Refer to page G–17.)
2. Compression
3. Fuel system (Refer to page F–100.)

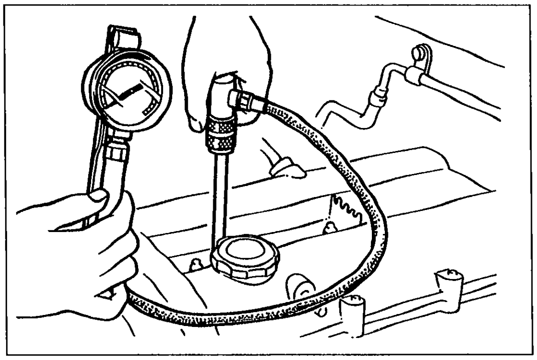
05U0BX-017



05U0BX-018

INSPECTION

1. Check that the battery is fully charged. Recharge it if necessary. (Refer to page G–8.)
2. Warm up the engine to the normal operating temperature.
3. Turn the engine OFF.
4. Remove all spark plugs.
5. Disconnect the ignition coil connector.



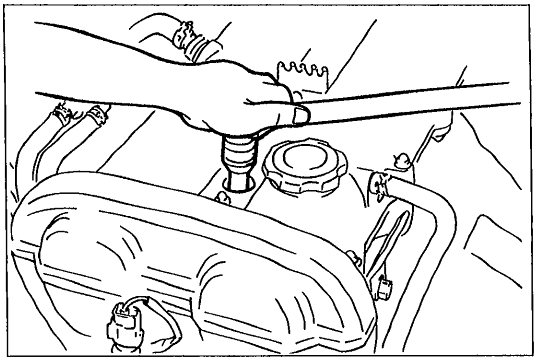
05U0BX-019

6. Connect a compression gauge to the No.1 spark plug hole.
7. Fully depress the accelerator pedal and crank the engine.
8. Record the maximum gauge reading.
9. Check each cylinder.

Compression:
1,324 kPa (13.5 kg/cm^2, 192 psi) - 300 rpm
Minimum:
932 kPa (9.5 kg/cm^2, 135 psi) - 300 rpm
Differential limit between cylinders:
196 kPa (2.0 kg/cm^2, 28 psi)

10. If the compression in one or more cylinders is low, pour a small amount of engine oil into the cylinder and recheck the compression.
    (1) If the compression increases, the piston, piston rings, or cylinder wall may be worn.
    (2) If the compression stays low, the valve may be stuck or seating improperly.
    (3) If the compression in adjacent cylinders stays low, the cylinder head gasket may be defective or the cylinder head distorted.
11. Connect the ignition coil connector.

05U0BX-020



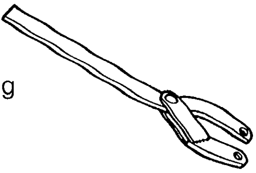
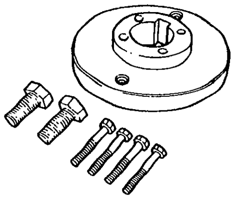
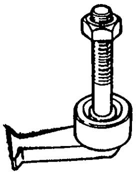
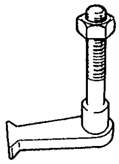
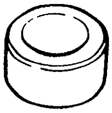
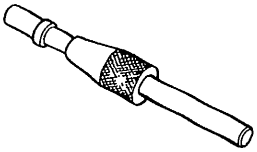
05U0BX-021

12. Apply antiseize compound or molybdenum-based lubricant to the spark plug threads.
13. Install the spark plugs.

Tightening torque:
15—23 N·m (1.5—2.3 m-kg, 11—17 ft-lb)

ON-VEHICLE MAINTENANCE

PREPARATION
SST

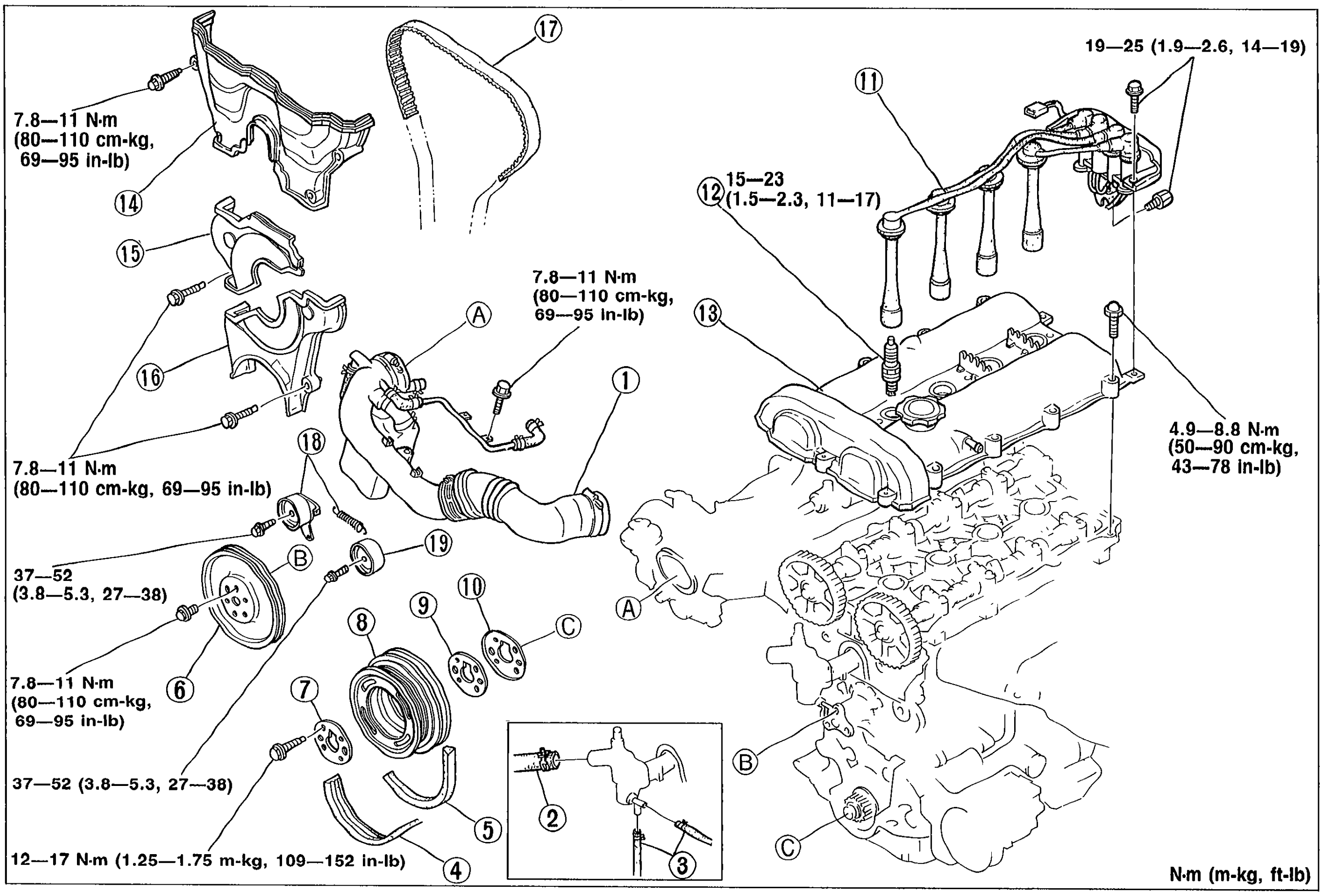
49 S120 710 Holder, coupling flange 	For removal and installation of timing belt pulley	49 B011 102 Lock tool, crankshaft 	For removal and installation of timing belt pulley
49 E301 060 Brake, ring gear 	For prevention of engine rotation	49 E301 061 Body (Part of 49 E301 060) 	For prevention of engine rotation
49 E301 062 Collar (Part of 49 E301 060) 	For prevention of engine rotation	49 SE01 310 Centering tool, clutch disc 	For installation of clutch disc

05U0BX-022

TIMING BELT
Removal / Installation

Caution
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**
- **Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.**

1. Disconnect the negative battery cable.
2. Drain the engine coolant.
3. Remove in the order shown in the figure, referring to **Removal Note**.
4. Install in the reverse order of removal, referring to **Installation Note**.

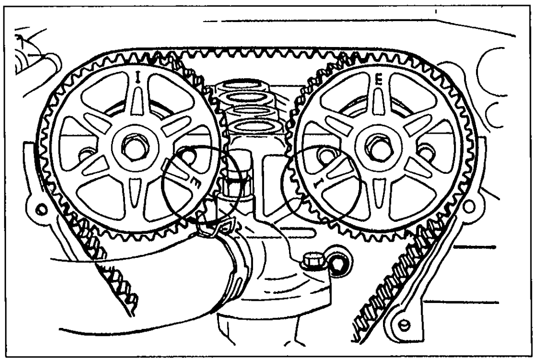

⑰
19—25 (1.9—2.6, 14—19)
⑪
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
⑭
⑫ 15—23 (1.5—2.3, 11—17)
⑮
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
Ⓐ
⑬
⑯
①
4.9—8.8 N·m (50—90 cm-kg, 43—78 in-lb)
⑱
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
⑲
Ⓑ
37—52 (3.8—5.3, 27—38)
⑩
⑨
⑧
Ⓐ
Ⓒ
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
⑥
⑦
Ⓑ
②
37—52 (3.8—5.3, 27—38)
⑤
Ⓒ
③
12—17 N·m (1.25—1.75 m-kg, 109—152 in-lb)
④
N·m (m-kg, ft-lb)

05U0BX-023

1. Air intake pipe
2. Upper radiator hose
3. Water hoses (Connect to thermostat housing)
4. P/S and/or A/C drive belt
   Removal / Installation .... page B– 6
5. Alternator drive belt
   Removal / Installation .... page B– 6
6. Water pump pulley
7. Plate
8. Crankshaft pulley
9. Timing belt guide plate, outer
10. Timing belt guide plate, inner
    Installation Note .... page B–15
11. Ignition coil and high-tension lead
12. Spark plug
    Installation Note .... page B–15
13. Cylinder head cover
    Installation Note .... page B–15
14. Timing belt cover, upper
15. Timing belt cover, middle
16. Timing belt cover, lower
17. Timing belt
    Removal Note .... page B–13
    Installation Note .... page B–13
    Inspection .... page B–59
18. Tensioner, tensioner spring
    Installation Note .... page B–13
    Inspection .... page B–59
19. Idler
    Inspection .... page B–59

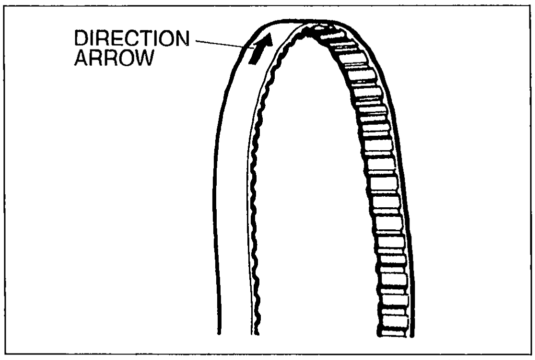
Removal note

Timing belt



05U0BX-024

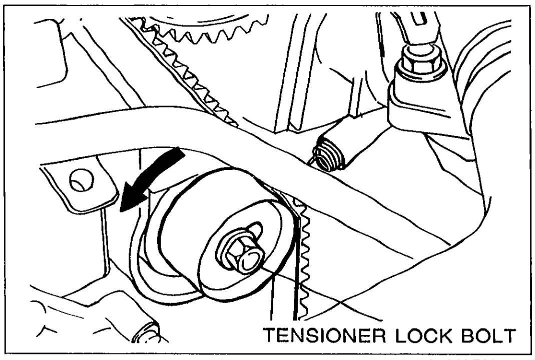
1. Turn the crankshaft and align the marks.



05U0BX-025

Note

- **Mark the timing belt rotation for proper reinstallation.**



05U0BX-026

2. Loosen the tensioner lock bolt.

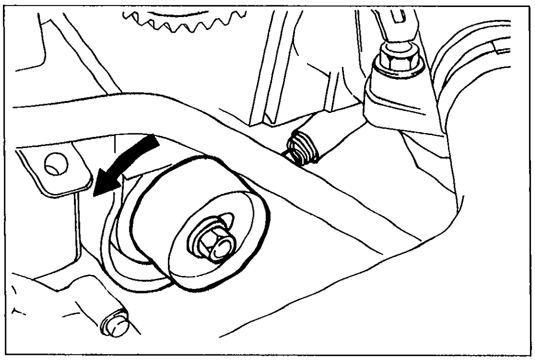
Caution

- **To prevent damage to the tensioner, secure it with a rag.**

3. Temporarily secure the tensioner with the spring fully extended.
4. Remove the timing belt.

Installation note

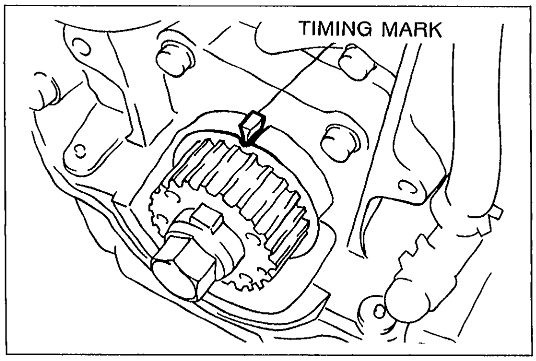
Tensioner, tensioner spring



05U0BX-027

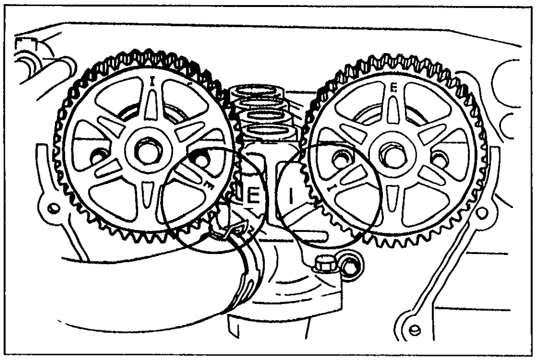
1. Install the tensioner and the tensioner spring.
2. Temporarily secure the tensioner with the spring fully extended.

Timing belt



05U0BX-028

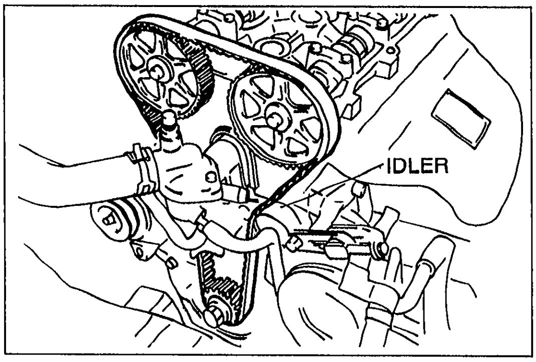
1. Verify that the timing belt pulley mark is aligned with the timing mark.



05U0BX-029

2. Verify that the camshaft pulley marks are aligned with the seal plate marks.

Caution
- **For intake side, align the E mark.**
- **For exhaust side, align the I mark.**

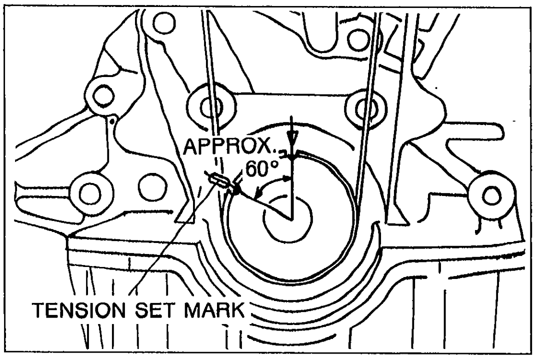


05U0BX-030

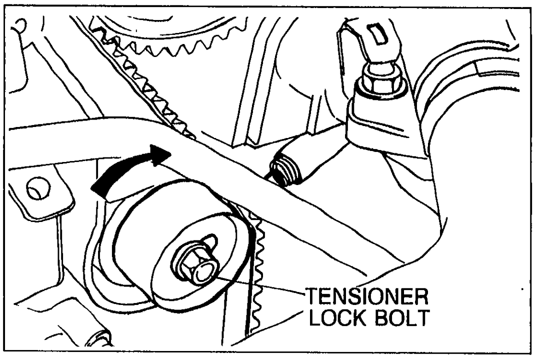
3. Install the timing belt so that there is no looseness at the idler side or between the two camshaft pulleys.

Caution
- **Do not turn the crankshaft counterclockwise.**

4. Turn the crankshaft two turns clockwise, and align the timing belt pulley mark with the timing mark.
5. Verify that the camshaft pulley marks are aligned with the seal plate marks.
   If not aligned, remove the timing belt and repeat from tensioner installation.
6. Turn the crankshaft 1 and 5/6 turn clockwise, and align the timing belt pulley mark with the tension set mark.



05U0BX-031

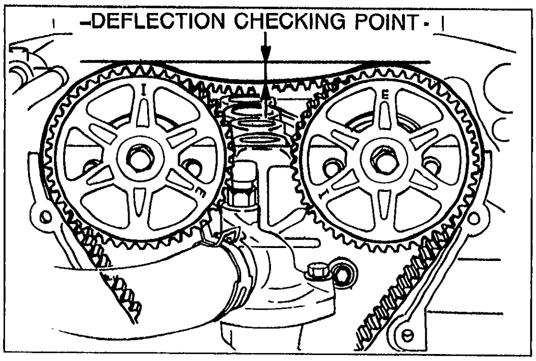


05U0BX-032

7. Loosen the tensioner lock bolt to apply tension to the timing belt.
8. Tighten the tensioner lock bolt.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

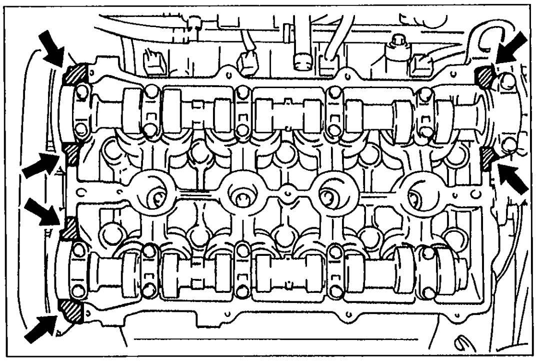
9. Turn the crankshaft 2 and 1/6 turns clockwise and verify that the timing marks are correctly aligned.



05U0BX-033

10. Measure the timing belt deflection by applying moderate pressure **(98 N, 10 kg, 22 lb)** midway between the two camshaft pulleys.
    If the deflection is not correct, repeat from Step 7 above.

Deflection:
9.0—11.5mm (0.35—0.45 in) at 98 N (10 kg, 22 lb)

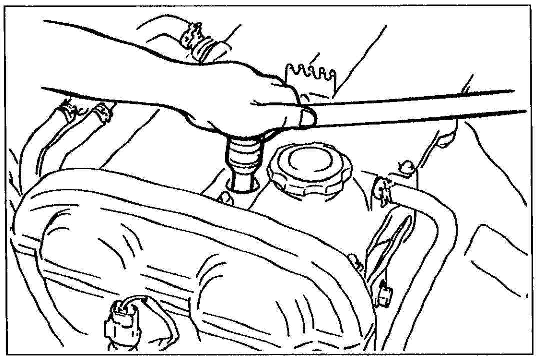


05U0BX-034

Cylinder head cover

1. Apply silicone sealant to the shaded areas as shown in the figure.
2. Install the cylinder head cover.

Tightening torque:
4.9—8.8 N·m (50—90 cm-kg, 43—78 in-lb)

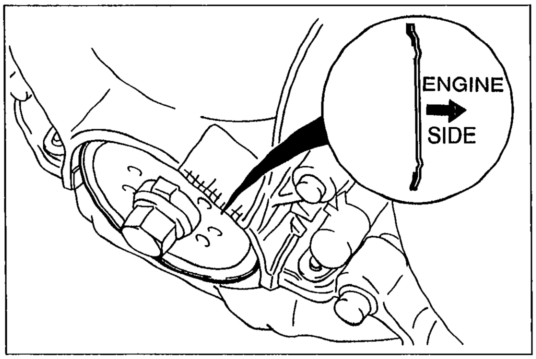


05U0BX-286

Spark plug

1. Apply antiseize compound or molybdenum-based lubricant to the spark plug threads.
2. Install the spark plugs.

Tightening torque:
15—23 N·m (1.5—2.3 m-kg, 11—17 ft-lb)



05U0BX-035

Timing belt guide plate, inner

Caution

- **Make sure the timing belt inner guide plate is installed in the proper direction.**

1. Install the timing belt inner guide plate.

Steps After Installation

1. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E–5.)
2. Connect the negative battery cable.
3. Start the engine and check as follows:
   (1) Engine coolant leakage.
   (2) Ignition timing. (Refer to page B–8.)
4. Recheck the engine coolant levels.

05U0BX-036

CYLINDER HEAD GASKET

Replacement

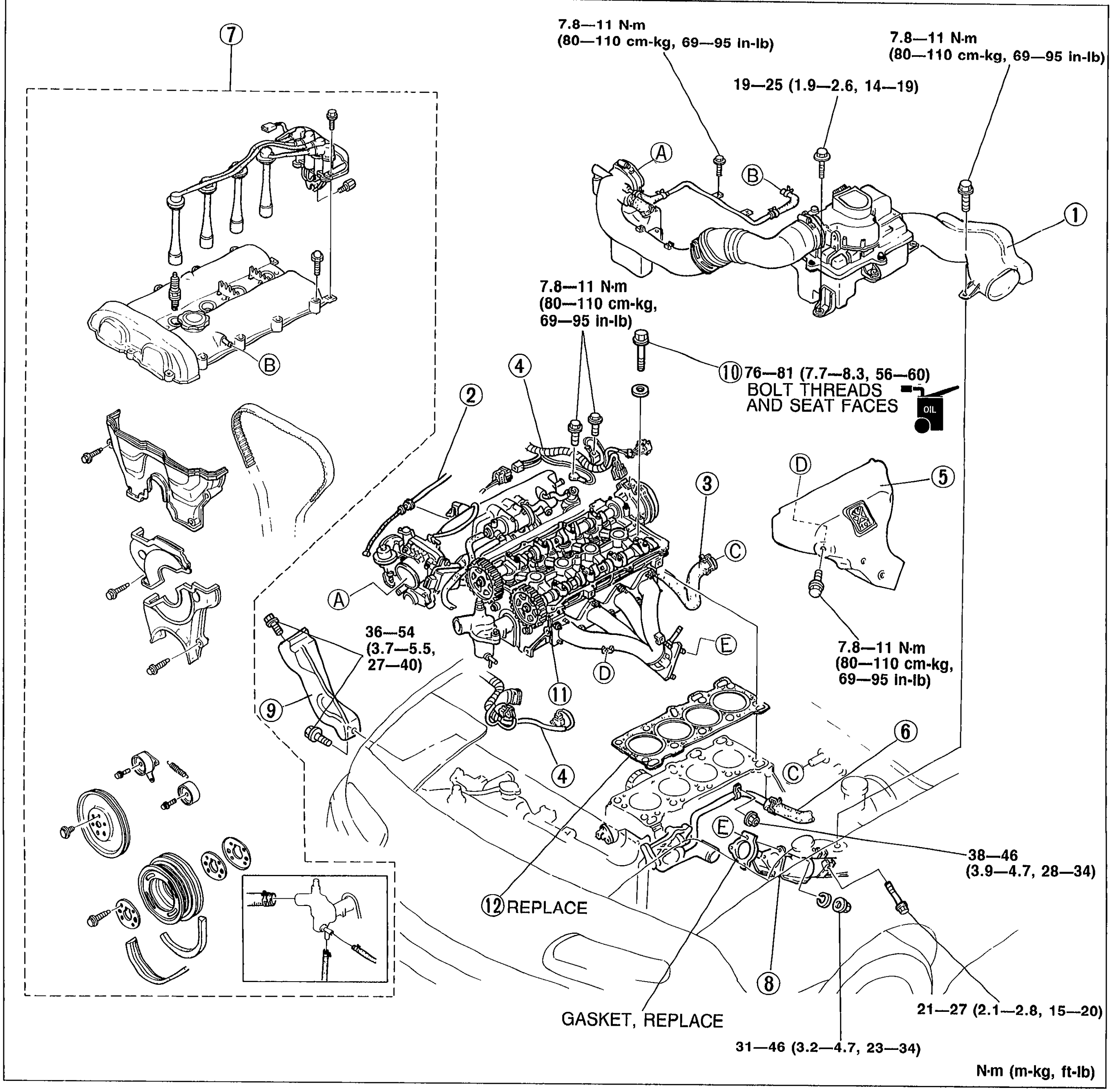
Warning

- **Release the fuel pressure. (Refer to page F–101.)**
- **Keep sparks and open flame away from the fuel area.**

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**
- **Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.**

1. Disconnect the negative battery cable.
2. Drain the engine coolant.
3. Remove in the order shown in the figure, referring to **Removal Note**.
4. Install in the reverse order of removal, referring to **Installation Note**.


⑦
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
19—25 (1.9—2.6, 14—19)
Ⓐ
Ⓑ
①
Ⓑ
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
④
②
⑩ 76—81 (7.7—8.3, 56—60)
BOLT THREADS AND SEAT FACES
OIL
Ⓓ
⑤
③
Ⓒ
Ⓐ
36—54 (3.7—5.5, 27—40)
Ⓔ
Ⓓ
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
⑨
⑪
⑥
④
Ⓒ
Ⓔ
38—46 (3.9—4.7, 28—34)
⑫REPLACE
⑧
GASKET, REPLACE
21—27 (2.1—2.8, 15—20)
31—46 (3.2—4.7, 23—34)
N·m (m-kg, ft-lb)

05U0BX-037

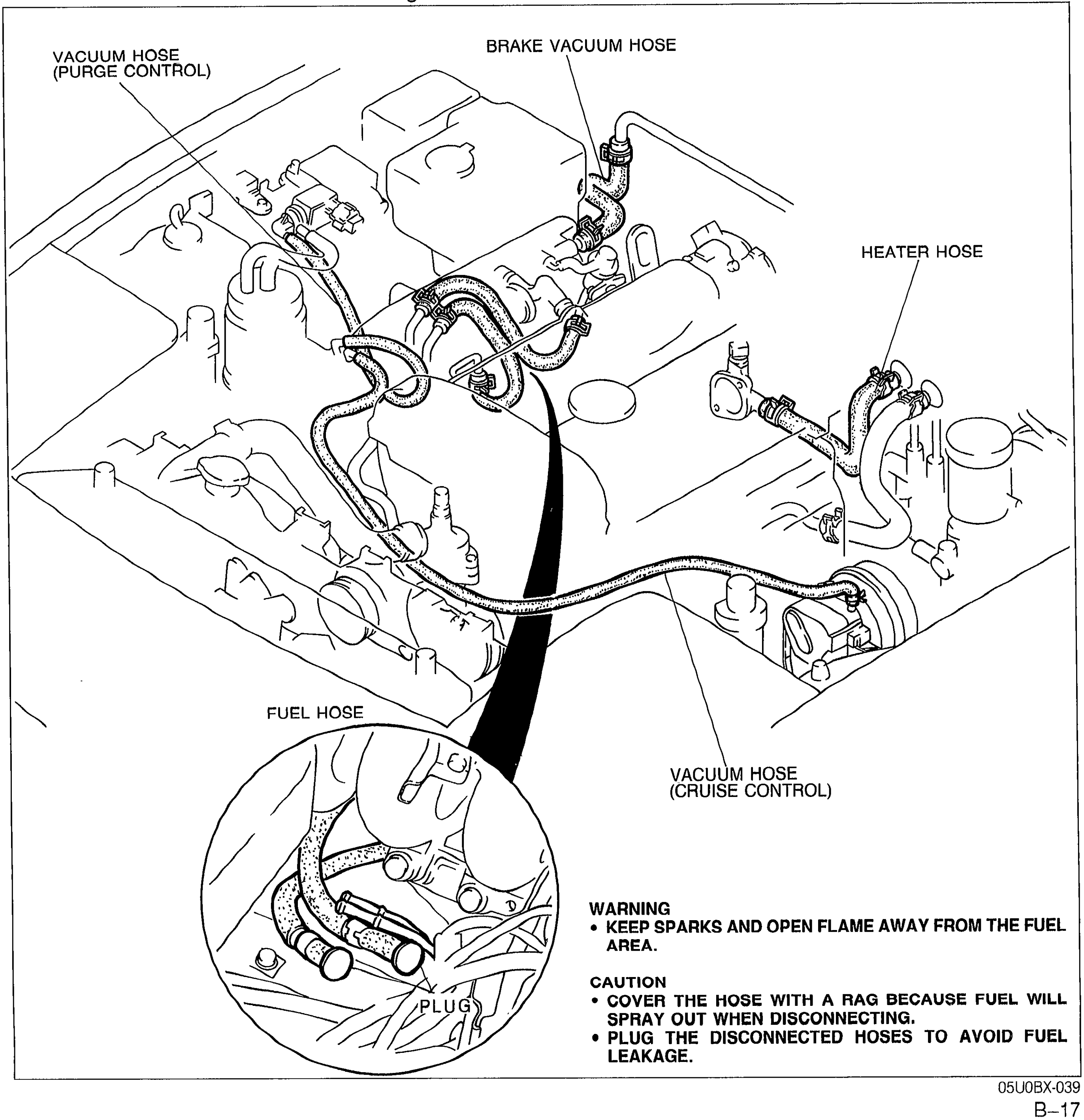
1. Air cleaner assembly
2. Accelerator cable
   Installation Note.......................... page B–19
3. Hoses
   Removal / Installation Note......... page B–17
4. Harnesses
   Removal / Installation Note......... page B–18
5. Exhaust manifold insulator
6. Water bypass pipe
   Removal Note............................. page B–18
7. Timing belt
   Removal / Installation.................. page B–12
8. Front exhaust pipe
9. Manifold bracket
10. Cylinder head bolt
    Removal Note............................. page B–18
    Installation Note.......................... page B–19
11. Cylinder head
    Disassembly .... page B–40
    Inspection .... page B–48
    Assembly..................................... page B–70
12. Cylinder head gasket

05U0BX-038

Removal / Installation note

Hoses

1. Disconnect the hoses shown in the figure.


VACUUM HOSE (PURGE CONTROL)
BRAKE VACUUM HOSE
HEATER HOSE
FUEL HOSE
VACUUM HOSE (CRUISE CONTROL)
PLUG

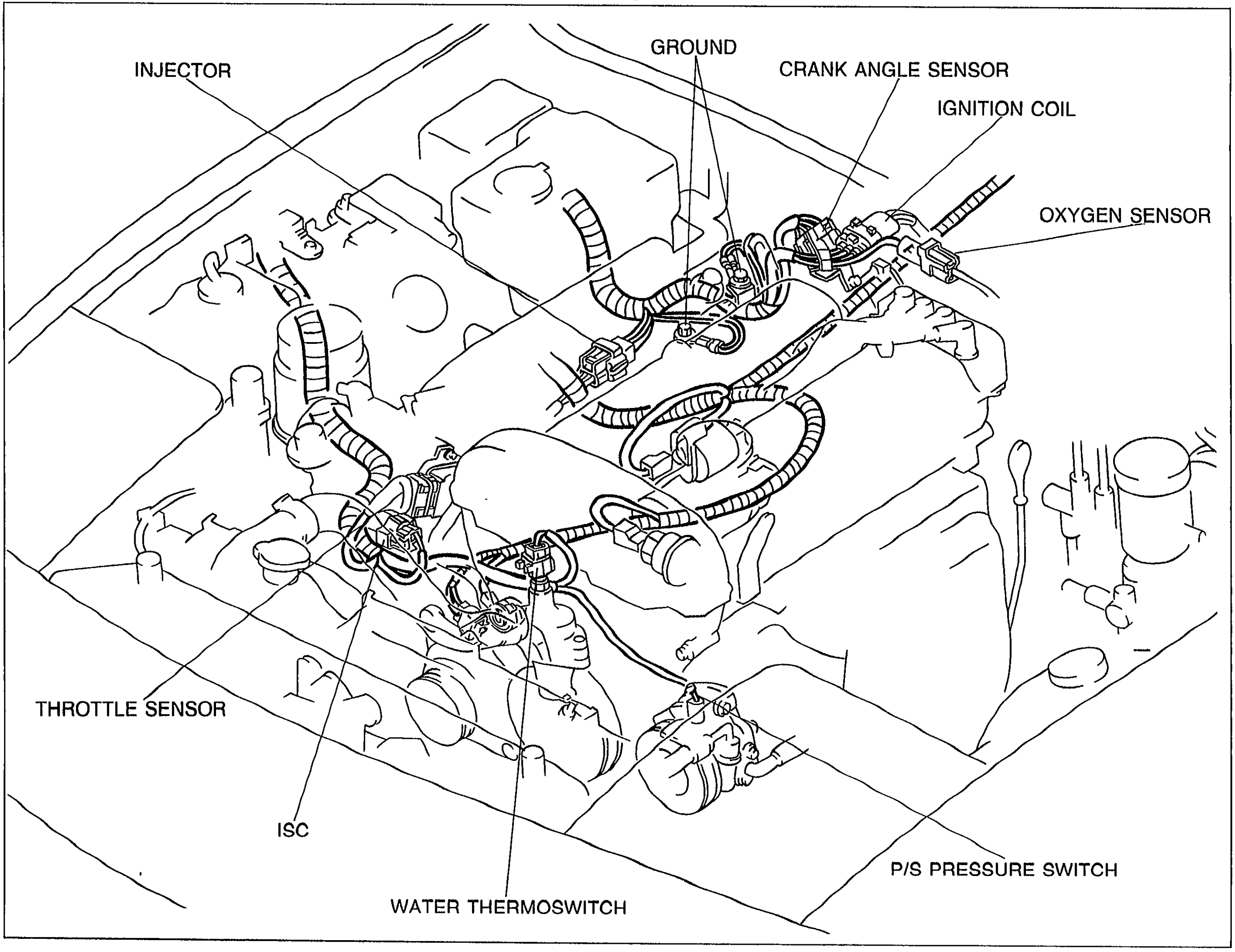
WARNING
- **KEEP SPARKS AND OPEN FLAME AWAY FROM THE FUEL AREA.**

CAUTION
- **COVER THE HOSE WITH A RAG BECAUSE FUEL WILL SPRAY OUT WHEN DISCONNECTING.**
- **PLUG THE DISCONNECTED HOSES TO AVOID FUEL LEAKAGE.**

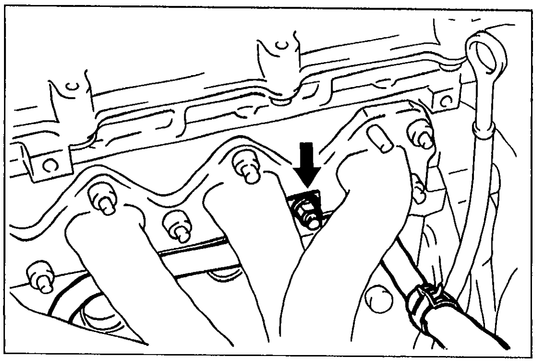
05U0BX-039

Harnesses

1. Disconnect the harness connectors shown in the figure.


INJECTOR
GROUND
CRANK ANGLE SENSOR
IGNITION COIL
OXYGEN SENSOR
THROTTLE SENSOR
ISC
P/S PRESSURE SWITCH
WATER THERMOSWITCH

05U0BX-040

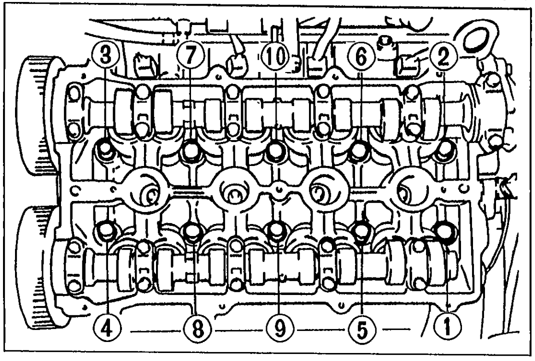


05U0BX-041

Removal note

Water bypass pipe

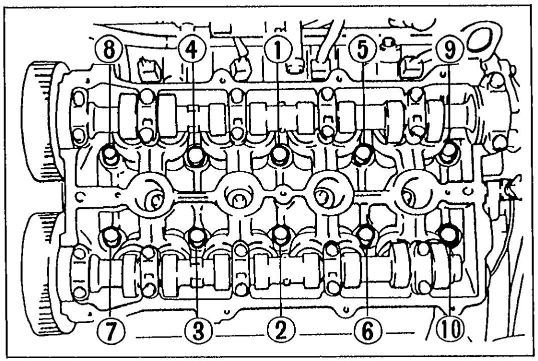
1. Remove the exhaust manifold nut as shown in the figure.
2. Remove the water bypass pipe from the cylinder head assembly.


3
7
10
6
2
4
8
9
5
1

05U0BX-042

Cylinder head bolt

1. Loosen the cylinder head bolts in two or three steps in the order shown in the figure.
2. Remove the cylinder head bolts.



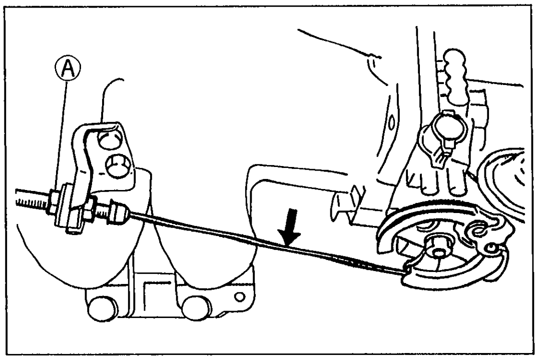
05U0BX-043

Installation note

Cylinder head bolt

1. Apply clean engine oil to the bolt threads and seat faces.
2. Install the cylinder head bolts.
3. Tighten the cylinder head bolts in two or three steps in the order shown in the figure.

Tightening torque:
76—81 N·m (7.7—8.3 m-kg, 56—60 ft-lb)



05U0BX-045

Accelerator cable

1. Install the accelerator cable.
2. Check the accelerator cable deflection.
   If the deflection is not correct, adjust by turning nut A.

Deflection: 1—3mm (0.04—0.12 in)

Steps After Installation

1. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E–5.)
2. Connect the negative battery cable.
3. Start the engine and check as follows:
   (1) Engine oil and engine coolant leakage.
   (2) Ignition timing, idle speed. (Refer to page B–8.)
   (3) Operation of emission control system.
4. Recheck the engine coolant levels.

05U0BX-046

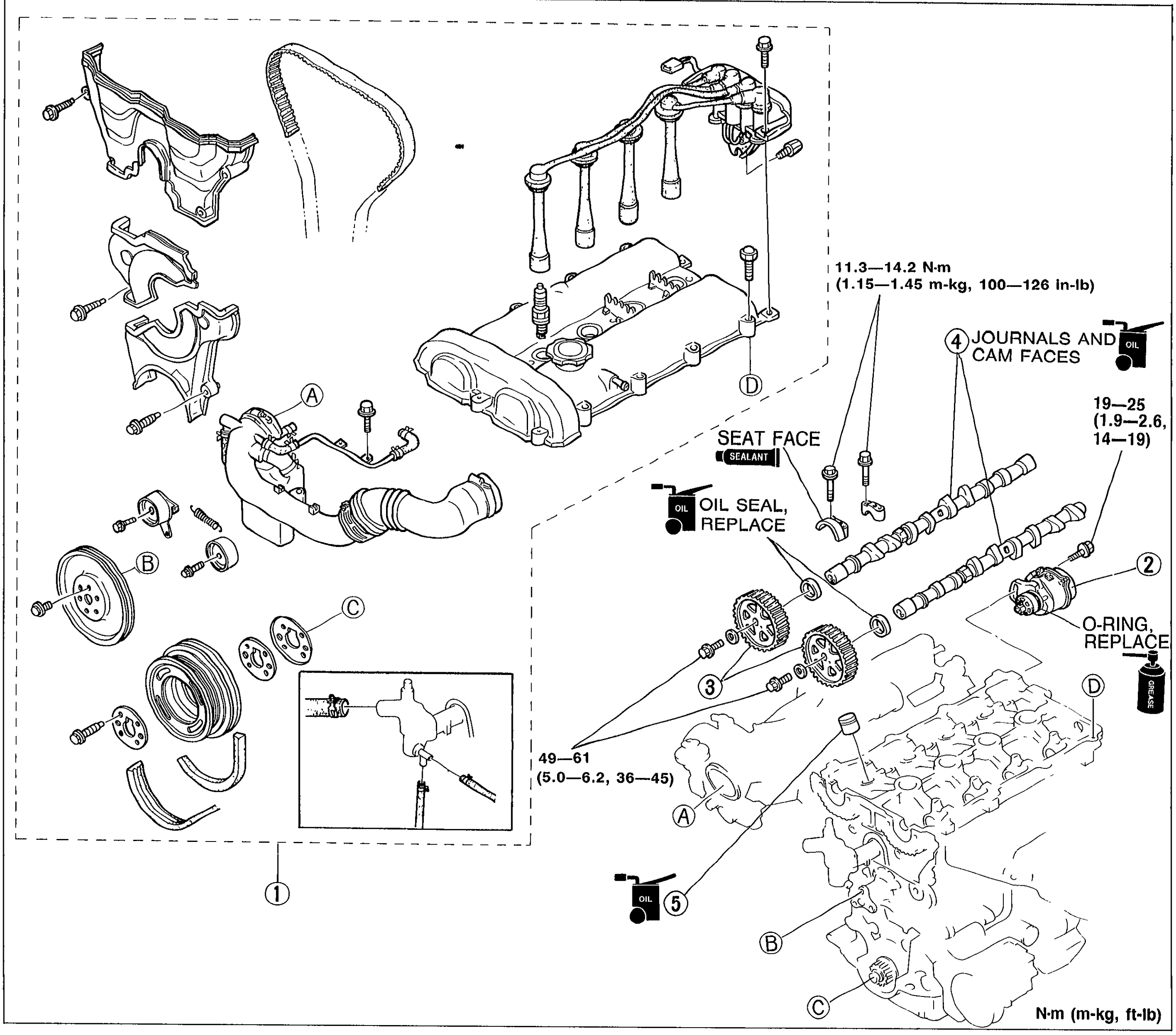
HLA

Removal / Installation

Caution

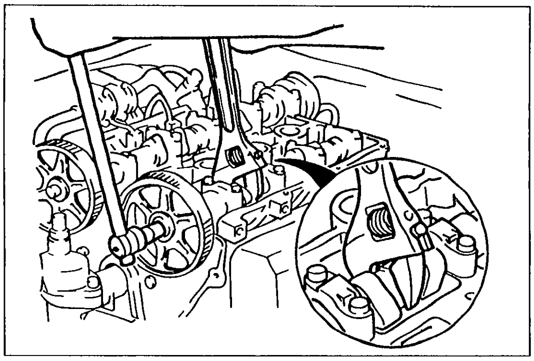
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**
- **Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.**

1. Disconnect the negative battery cable.
2. Drain the engine coolant.
3. Remove in the order shown in the figure, referring to **Removal Note**.
4. Install in the reverse order of removal, referring to **Installation Note**.


11.3—14.2 N·m
(1.15—1.45 m-kg, 100—126 in-lb)
④ JOURNALS AND CAM FACES
OIL
19—25
(1.9—2.6, 14—19)
Ⓓ
SEAT FACE
SEALANT
OIL
OIL SEAL, REPLACE
②
O-RING, REPLACE
GREASE
Ⓓ
Ⓐ
Ⓑ
Ⓒ
③
49—61
(5.0—6.2, 36—45)
Ⓐ
OIL
⑤
Ⓑ
Ⓒ
①
N·m (m-kg, ft-lb)

05U0BX-047

1. Timing belt
    - Removal / Installation .... page B–12
2. Crank angle sensor
    - Installation Note .... page B–23
3. Camshaft pulley
    - Removal Note .... page B–21
    - Installation Note .... page B–22
4. Camshaft
    - Removal Note .... page B–21
    - Installation Note .... page B–21
5. HLA
    - Removal Note .... page B–21
    - Installation Note .... page B–21
    - Inspection .... page B–54

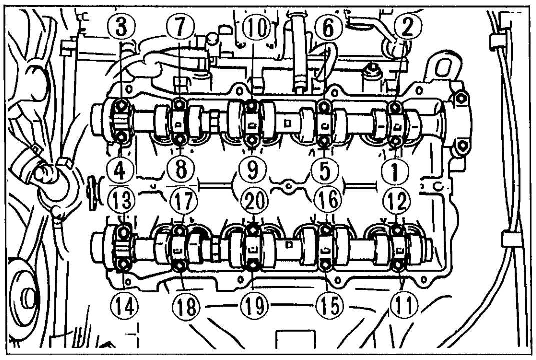


05U0BX-048

Removal note

Camshaft pulley

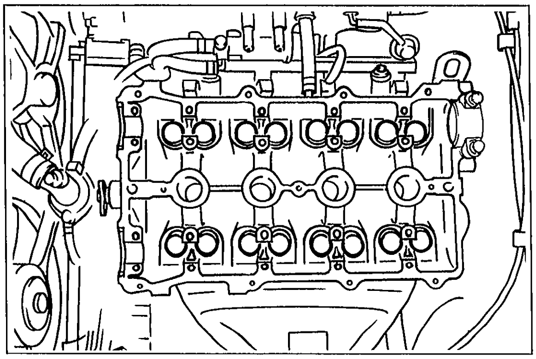
1. Hold the camshaft with a wrench.
2. Remove the camshaft pulley lock bolt.
3. Remove the camshaft pulley.



05U0BX-049

Camshaft

1. Loosen the camshaft cap bolts in two or three steps in the order shown in the figure.
2. Remove the camshaft caps.
3. Remove the camshaft.
4. Remove the camshaft oil seal from the camshaft.



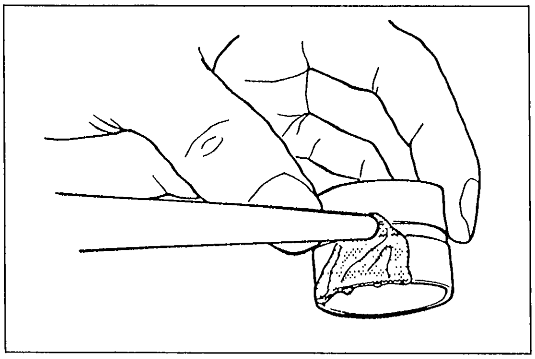
05U0BX-050

HLA

Caution

- **Mark the HLA with a felt pen so that they can be reinstalled in the position from which they were removed.**

1. Remove the HLA from the cylinder head.

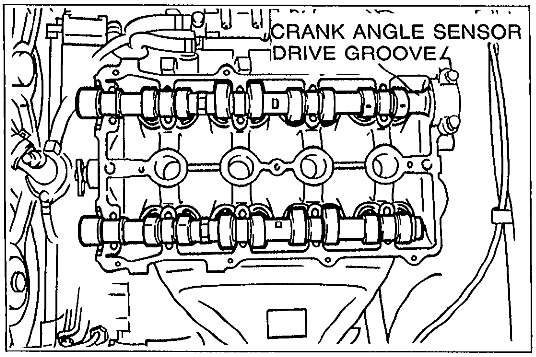


05U0BX-051

Installation note

HLA

1. Apply clean engine oil to the friction surfaces.
2. If the HLA are being reused, install them in the position from which they were removed.
3. Verify that the HLA move smoothly in their bores.



05U0BX-052

Camshaft

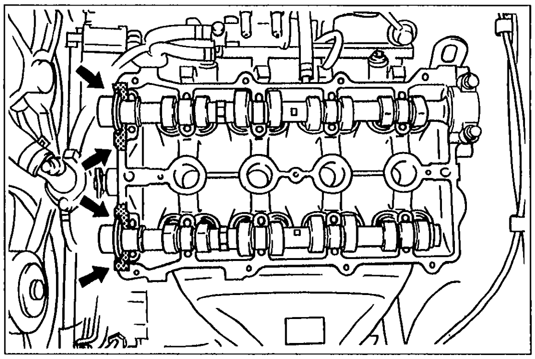
Note

- **The intake camshaft is grooved for the crank angle sensor drive.**

1. Apply clean engine oil to the camshaft journals and bearings.
2. Install the camshaft in position.

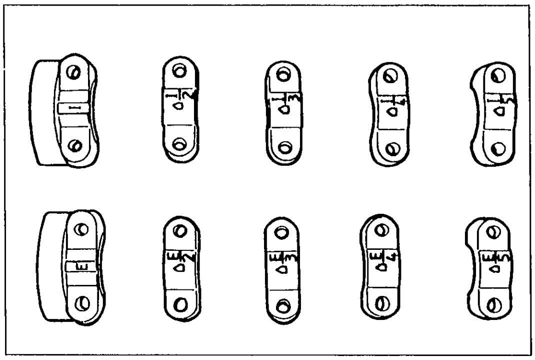
Caution

- **Do not allow any sealant on the camshaft journal surfaces.**



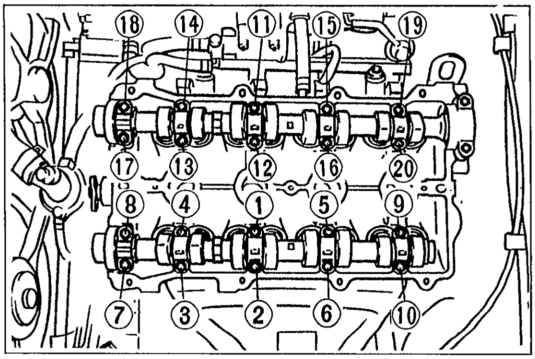
05U0BX-053

3. Apply silicone sealant to the shaded areas shown in the figure.



05U0BX-054

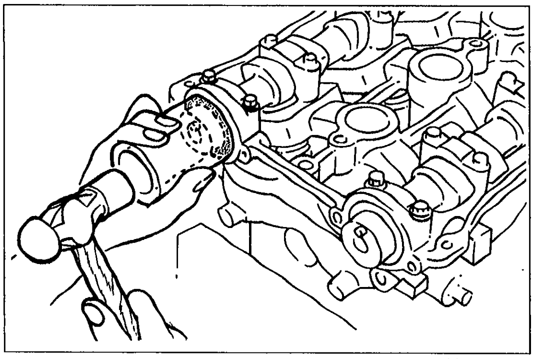
4. Install the camshaft caps according to the cap number and arrow mark.



05U0BX-055

5. Install the camshaft cap bolts and tighten them in two or three steps in the order shown in the figure.

Tightening torque:
11.3—14.2 N·m (1.15—1.45 m-kg, 100—126 in-lb)



05U0BX-056

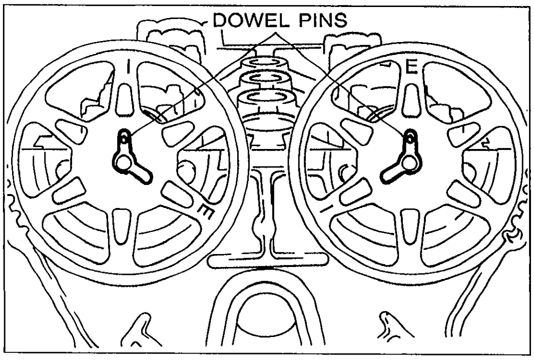
6. Apply a small amount of clean engine oil to the lip of a new camshaft oil seal.
7. Push the oil seal slightly in by hand.

Caution

- **The oil seal must be tapped in until it is flush with the edge of the camshaft cap.**

8. Tap the oil seal in evenly with a suitable pipe and a hammer.

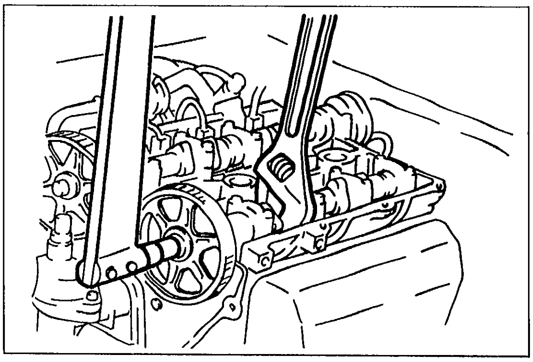
Oil seal outer diameter: 48mm (1.89 in)



05U0BX-057

Camshaft pulley

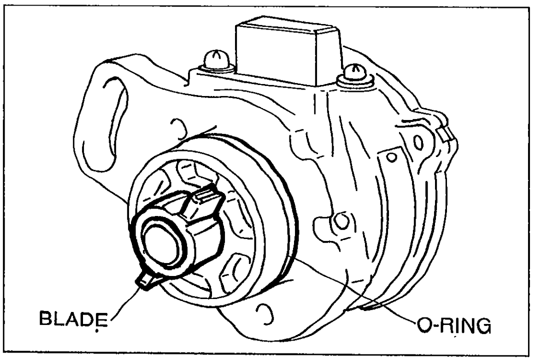
1. Turn the camshafts until the camshaft dowel pins face straight up.
2. Install the camshaft pulleys with the I mark (intake side) or the E mark (exhaust side) straight up.



05U0BX-058

3. Install the camshaft pulley lock bolts.
4. Hold the camshaft with a wrench.
5. Tighten the camshaft pulley lock bolt.

Tightening torque:
49—61 N·m (5.0—6.2 m-kg, 36—45 ft-lb)



05U0BX-059

Crank angle sensor

1. Apply grease to a new O-ring and the blade.
2. Install the crank angle sensor and loosely tighten the installation bolt.
3. Connect the crank angle sensor connector.

Steps After Installation

1. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E–5.)
2. Connect the negative battery cable.
3. Start the engine and check as follows:
   (1) Engine coolant leakage.
   (2) Ignition timing. (Refer to page B–8.)
4. Recheck the engine coolant levels.

05U0BX-036

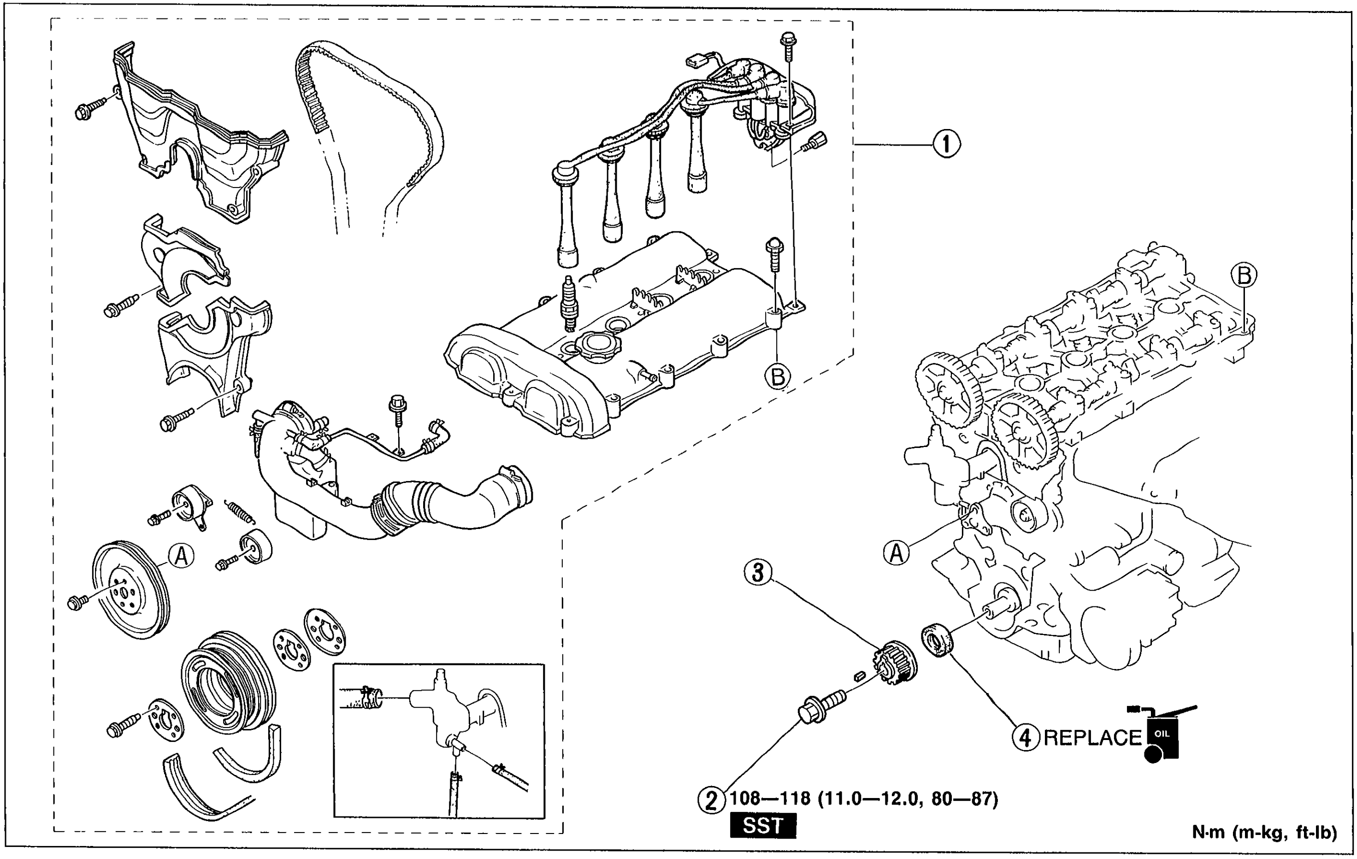
FRONT OIL SEAL

Replacement

Caution

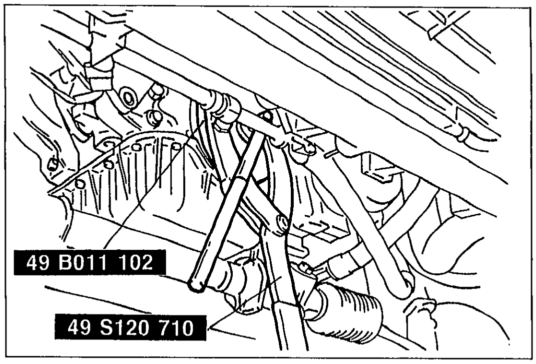
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**
- **Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.**

1. Disconnect the negative battery cable.
2. Remove the under cover.
3. Remove in the order shown in the figure, referring to **Removal Note**.
4. Install in the reverse order of removal, referring to **Installation Note**.



05U0BX-060

1. Timing belt
    Removal / Installation.................. page B–12
2. Pulley lock bolt
    Removal Note............................ page B–24
    Installation Note......................... page B–25
3. Timing belt pulley
    Removal Note............................ page B–25
    Installation Note......................... page B–25
4. Oil seal
    Removal Note............................ page B–25
    Installation Note......................... page B–25

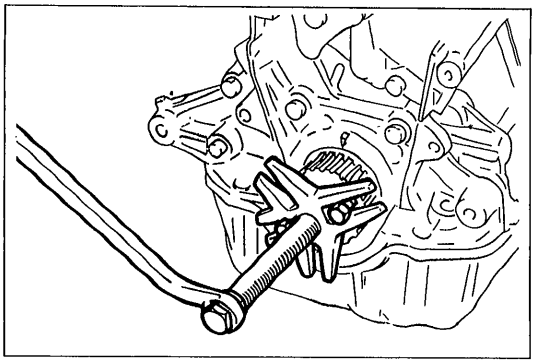


05U0BX-061

Removal note

Pulley lock bolt

1. Hold the timing belt pulley with the **SST**.
2. Connect the **SST** and loosen the pulley lock bolt.
3. Remove the pulley lock bolt.

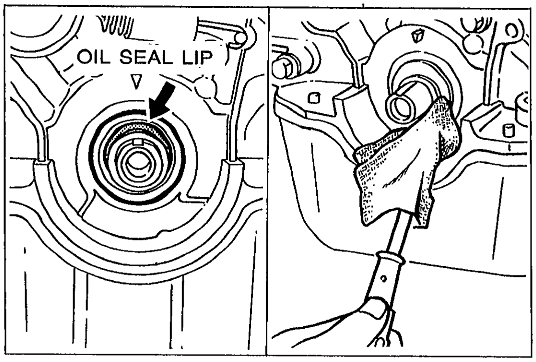


05U0BX-062

Timing belt pulley

Note
- **If necessary, remove the pulley with a steering wheel puller (commercially available).**

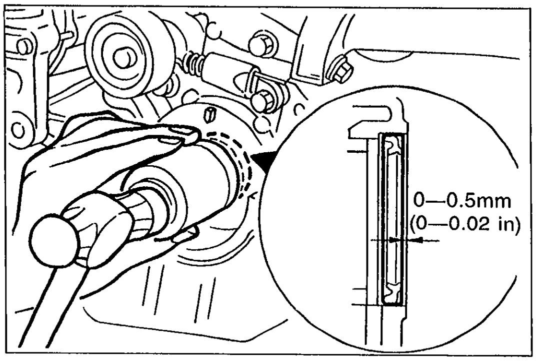
1. Remove the timing belt pulley.
2. Remove the pulley Woodruff key.



05U0BX-063

Oil seal

1. Cut the oil seal lip with a razor knife.
2. Remove the oil seal with a screwdriver protected with a rag.



05U0BX-064

Installation note

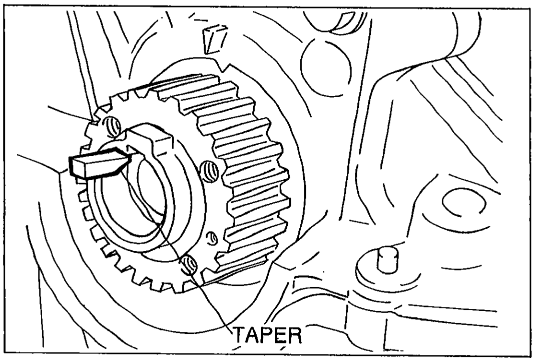
Oil seal

1. Apply a small amount of clean engine oil to the lip of a new oil seal.
2. Push the oil seal slightly in by hand.

Caution
- **The oil seal must be tapped in until it is flush with the edge of the oil pump body.**

3. Tap the oil seal in evenly with a suitable pipe and a hammer.

Oil seal outer diameter: 44mm (1.73 in)



05U0BX-065

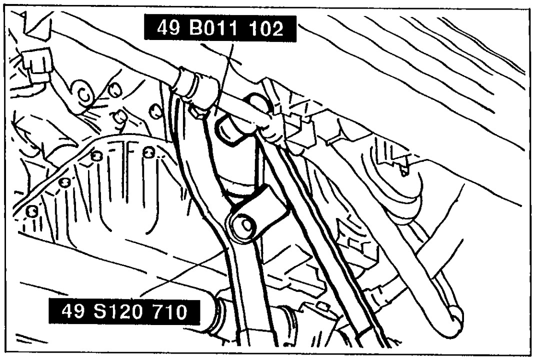
Timing belt pulley

1. Install the timing belt pulley.
2. Install the pulley Woodruff key with the tapered side toward the oil pump body.

Pulley lock bolt

1. Install the pulley lock bolt.
2. Tighten the pulley lock bolt using the two **SST**.

Tightening torque:
108—118 N·m (11.0—12.0 m-kg, 80—87 ft-lb)



05U0BX-066

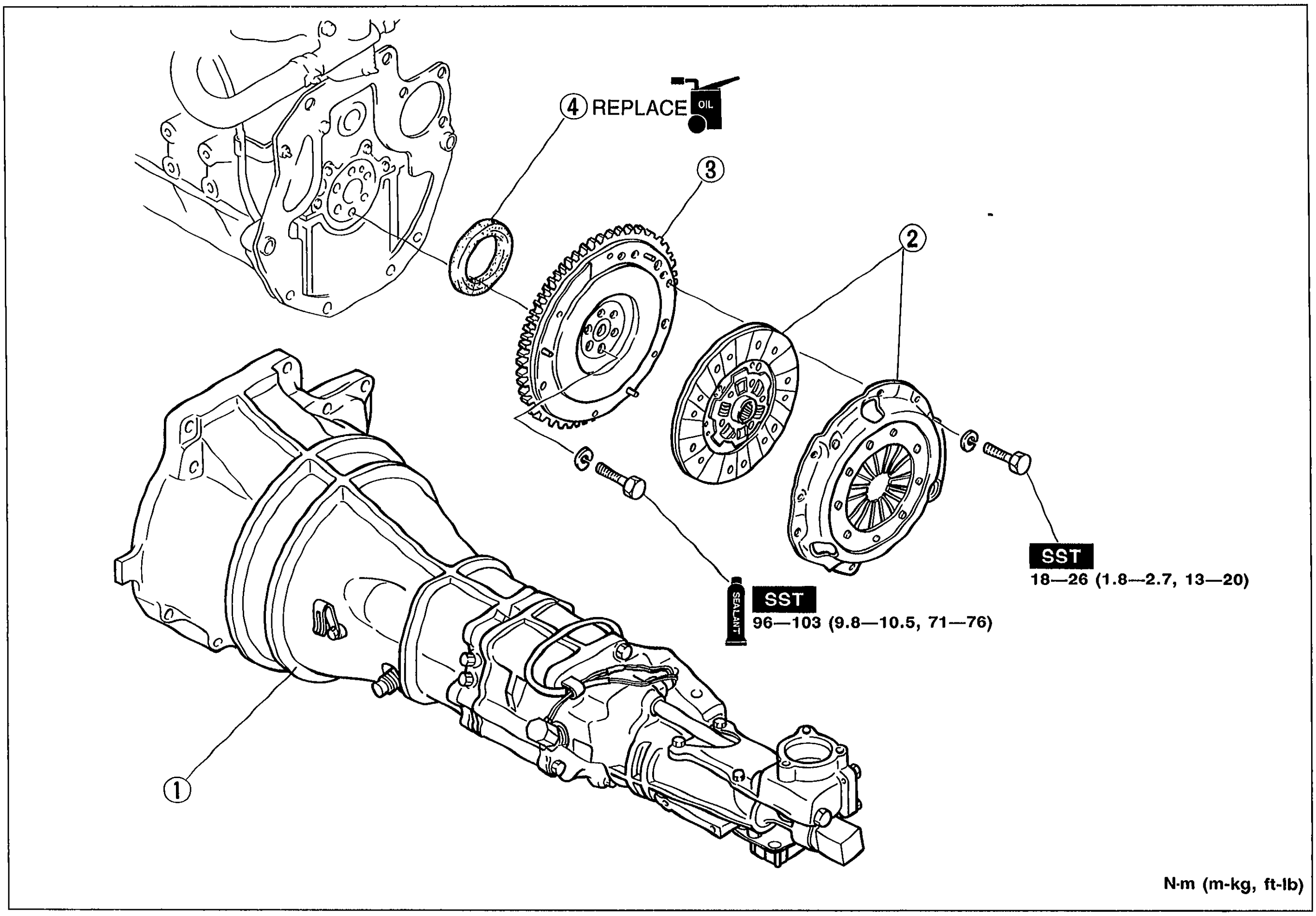
Steps After Installation

1. Install the under cover.
2. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E–5.)
3. Connect the negative battery cable.
4. Start the engine and check as follows:
   (1) Engine coolant leakage.
   (2) Ignition timing. (Refer to page B–8.)
5. Recheck the engine coolant levels.

REAR OIL SEAL
Replacement

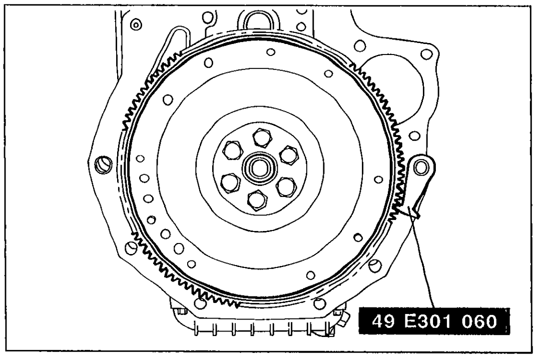
Caution
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

1. Disconnect the negative battery cable.
2. Remove in the order shown in the figure, referring to **Removal Note**.
3. Install in the reverse order of removal, referring to **Installation Note**.


④ REPLACE
OIL
③
②
①
SST
18—26 (1.8—2.7, 13—20)
SEALANT
SST
96—103 (9.8—10.5, 71—76)
N·m (m-kg, ft-lb)

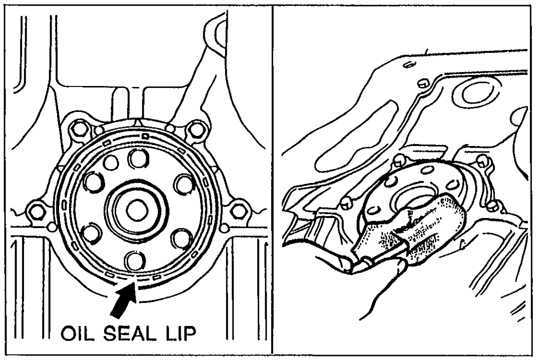
05U0BX-067

1. Transmission
    Service.................................. page J–10, 45
2. Clutch cover, clutch disc
    Service...................................... page H–14
3. Flywheel
    Removal Note............................. page B–26
    Installation Note.......................... page B–27
4. Oil seal
    Removal Note............................. page B–27
    Installation Note.......................... page B–27



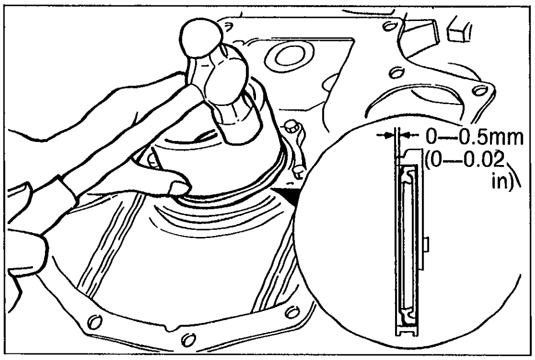
05U0BX-068

Removal note
Flywheel
1. Hold the flywheel with the **SST**.
2. Remove the flywheel lock bolts.
3. Remove the flywheel.



05U0BX-063

Oil seal
1. Cut the oil seal lip with a razor knife.
2. Remove the oil seal with a screwdriver protected with a rag.



05U0BX-069

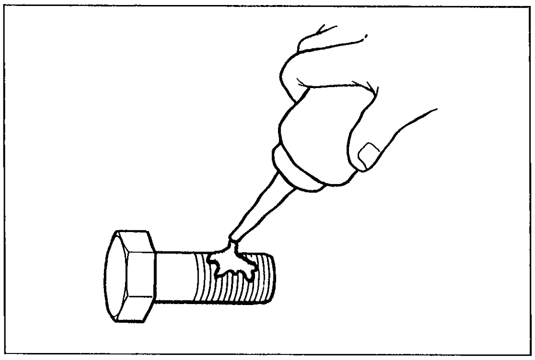
Installation note

Oil seal
1. Apply a small amount of clean engine oil to the lip of a new oil seal.
2. Push the oil seal slightly in by hand.

Caution
- **The oil seal must be tapped in until it is flush with the edge of the rear cover.**

3. Tap the oil seal in evenly with a suitable pipe and a hammer.

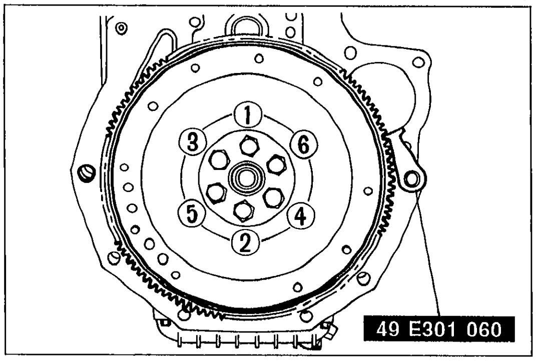
Oil seal outer diameter: 100mm (3.94 in)



05U0BX-070

Flywheel
1. Remove the sealant from the flywheel bolt holes in the crankshaft and from the flywheel bolts.

Caution
- **If all the previous sealant cannot be removed from a bolt, replace the bolt.**
- **Do not apply sealant if a new bolt is used.**



05U0BX-071

2. Set the flywheel onto the crankshaft.
3. Apply sealant to the flywheel bolts and install them.
4. Hold the flywheel with the **SST**.
5. Tighten the bolts in two or three steps in the order shown in the figure.

Tightening torque:
96—103 N·m (9.8—10.5 m-kg, 71—76 ft-lb)

Steps After Installation
1. Connect the negative battery cable.
2. Start the engine and perform engine adjustments as necessary.

05U0BX-072

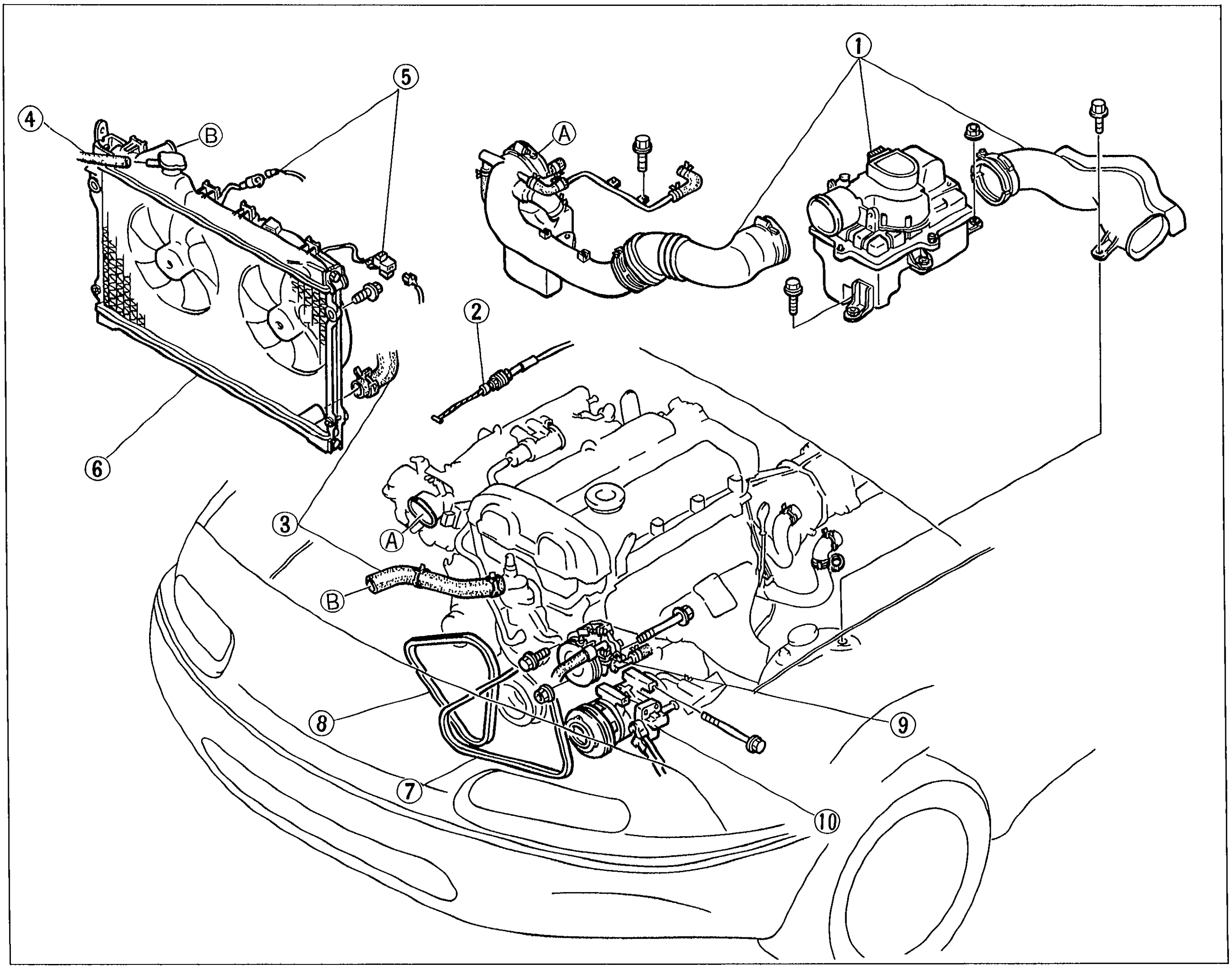
REMOVAL

Warning
- **Release the fuel pressure. (Refer to page F–101.)**

Caution
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

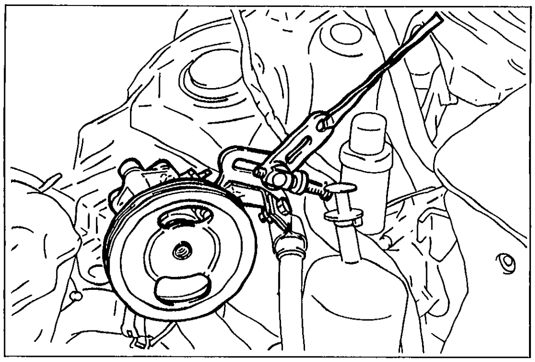
PROCEDURE
1. Disconnect the negative battery cable.
2. Drain the engine coolant.
3. Remove the under cover.
4. Remove in the order shown in the figure, referring to **Removal Note**.

Step 1



05U0BX-073

1. Air cleaner assembly
2. Accelerator cable
3. Radiator hose
4. Coolant reservoir hose
5. Cooling fan connector
6. Radiator and cooling fan assembly
7. P/S and/or A/C drive belt
   Removal .... page B– 6
8. Alternator drive belt
   Removal .... page B– 6
9. P/S oil pump
   Removal Note............................ page B–29
10. A/C compressor
    Removal Note............................ page B–29

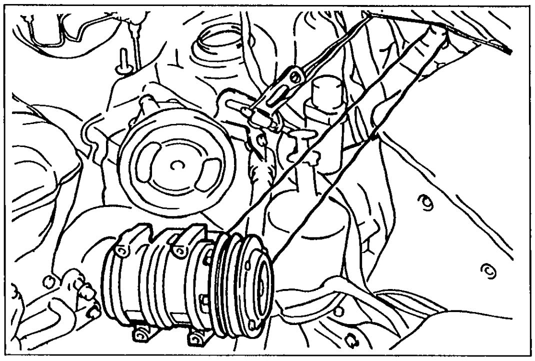

05U0BX-074

Removal note

P/S oil pump

Caution
- **Do not damage the hoses.**

1. Remove the P/S oil pump with the hoses still connected.
2. Position the pump away from the engine and affix it with wire.


05U0BX-075

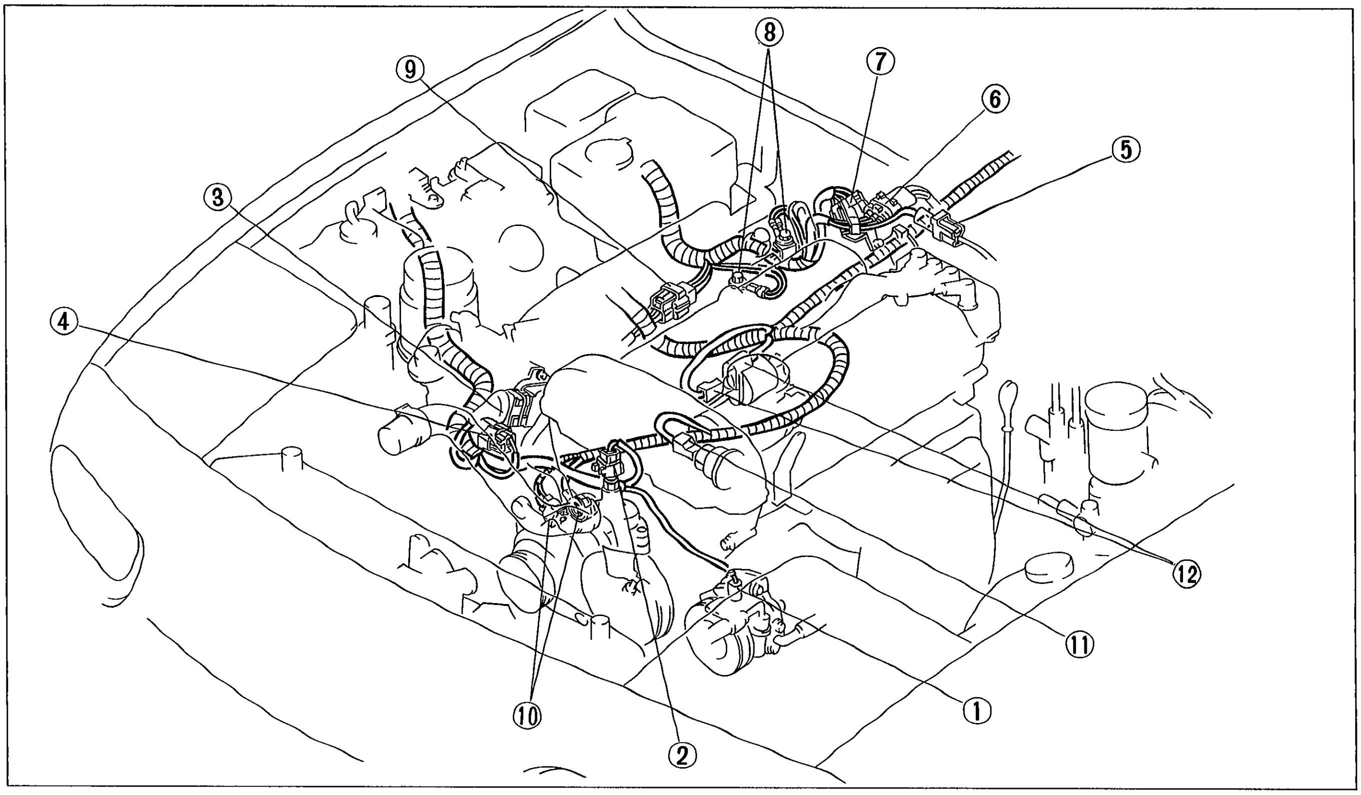
A/C compressor

Caution
- **Do not damage the hoses.**

1. Remove the A/C compressor with the hoses still connected.
2. Position the compressor away from the engine and affix it with wire.

Step 2

1. Disconnect the harness connectors shown in the figure.

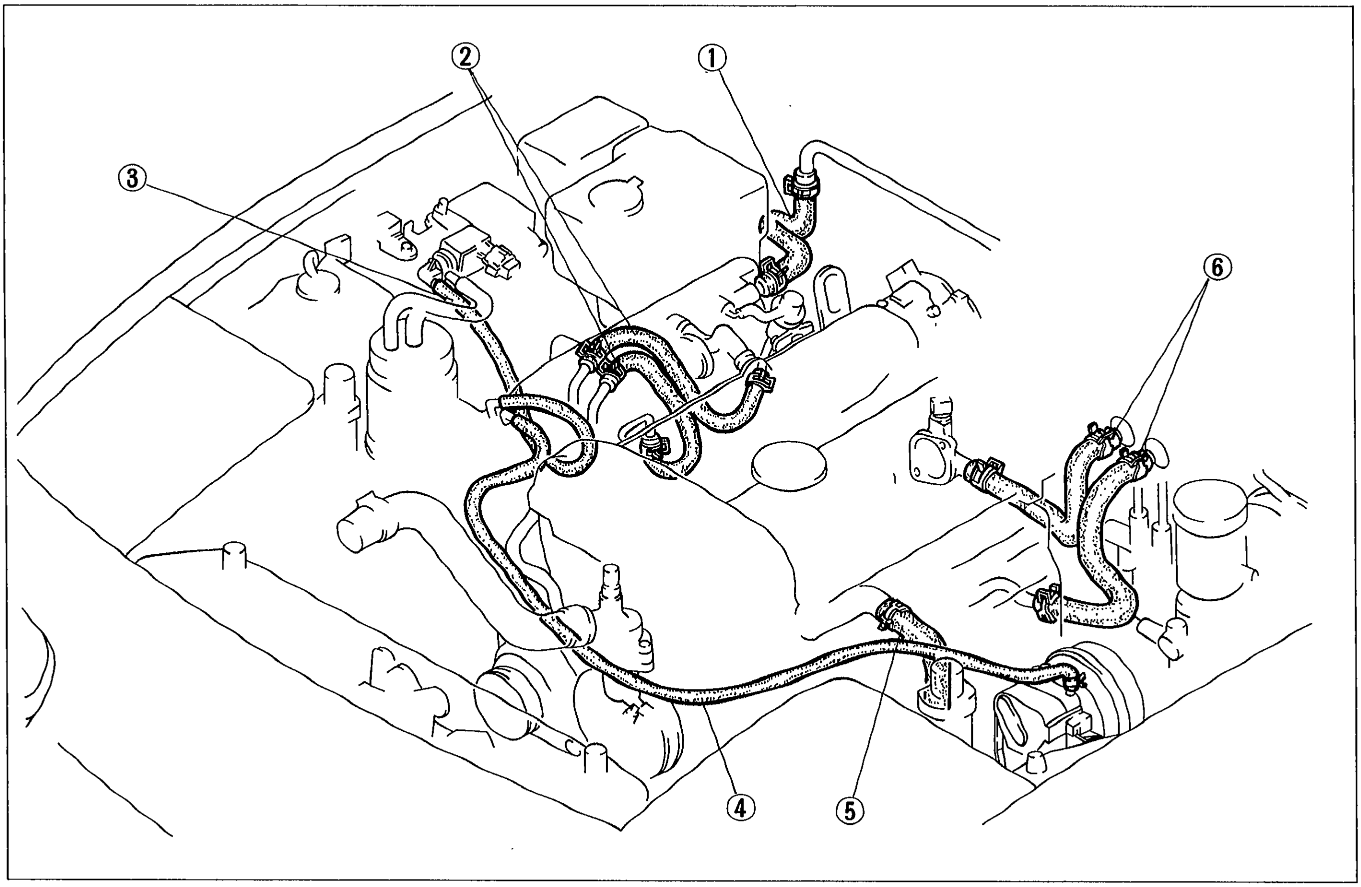


05U0BX-076

1. P/S pressure switch
2. Water thermoswitch
3. Throttle sensor
4. ISC
5. Oxygen sensor
6. Ignition coil
7. Crank angle sensor
8. Ground
9. Injector
10. Alternator
11. Oil pressure gauge
12. Starter

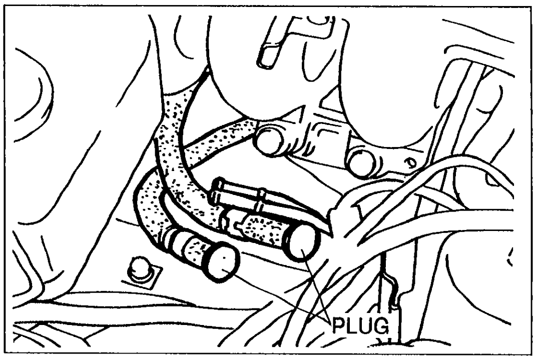
Step 3

1. Disconnect the hoses shown in the figure.



05U0BX-077

1. Brake vacuum hose
2. Fuel hose
   Removal Note............................ page B–30
3. Vacuum hose (Purge control)
4. Vacuum hose (Cruise control)
5. Water inlet hose
6. Heater hose



05U0BX-078

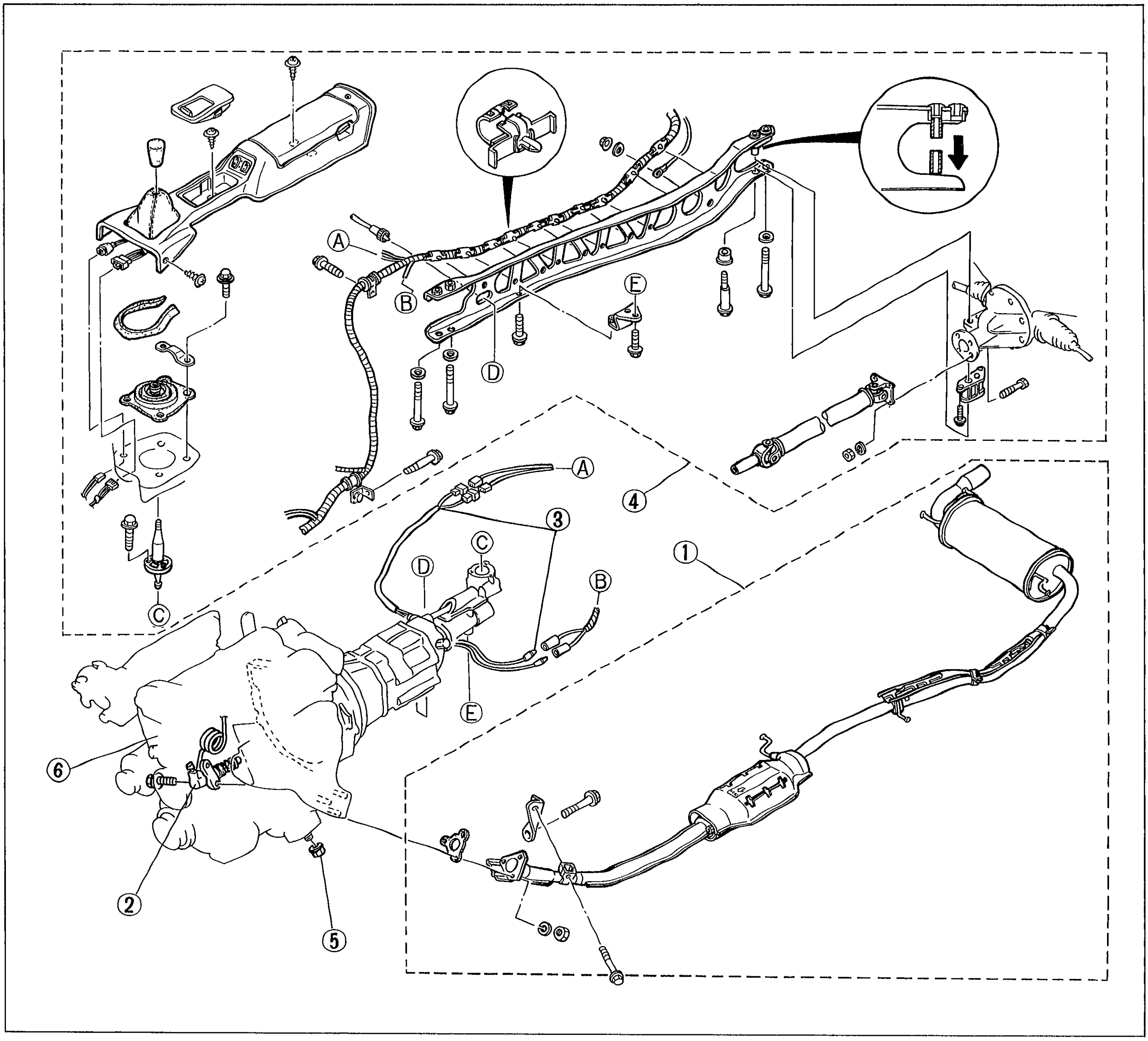
Removal note
Fuel hose

Warning
- **Keep sparks and open flame away from the fuel area.**

Caution
- **Cover the hose with a rag because fuel will spray out when disconnecting.**
- **Plug the disconnected hoses to avoid fuel leakage.**

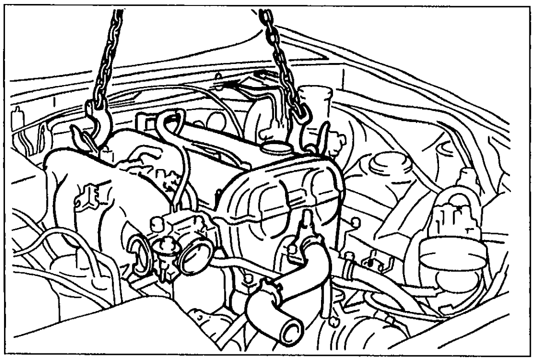
1. Disconnect the fuel hoses.

Step 4



05U0BX-079

1. Exhaust pipe
   Service .... page F–115
2. Clutch release cylinder
3. Transmission harness
4. Shift knob, speedometer cable, propeller shaft, and power plant frame
   Service .... page J–10
5. Engine mount nut
6. Engine and transmission assembly
   Removal Note .... page B–31



05U0BX-080

Removal note
Engine and transmission assembly

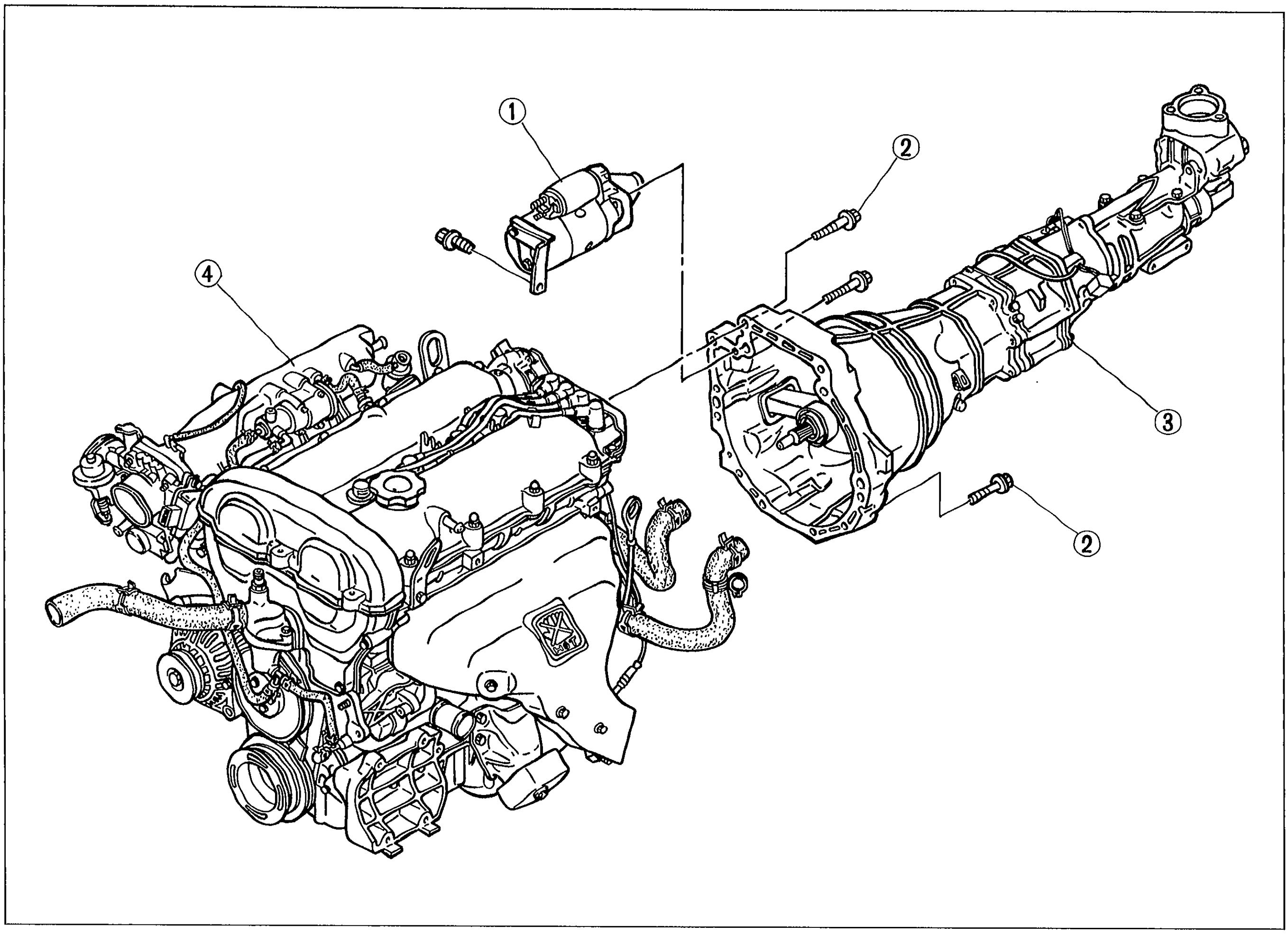
Caution

- **Do not damage any components in the engine compartment.**

1. Lift the engine and transmission assembly out as a unit.

REMOVAL

Step 5

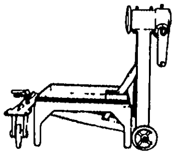
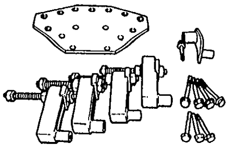
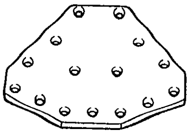
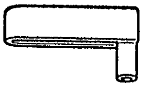
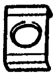
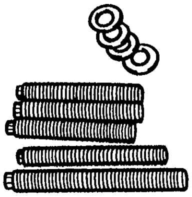
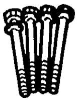


05U0BX-081

1. Starter
2. Transmission mounting bolt
3. Transmission
4. Engine assembly

ENGINE STAND MOUNTING

PREPARATION
SST

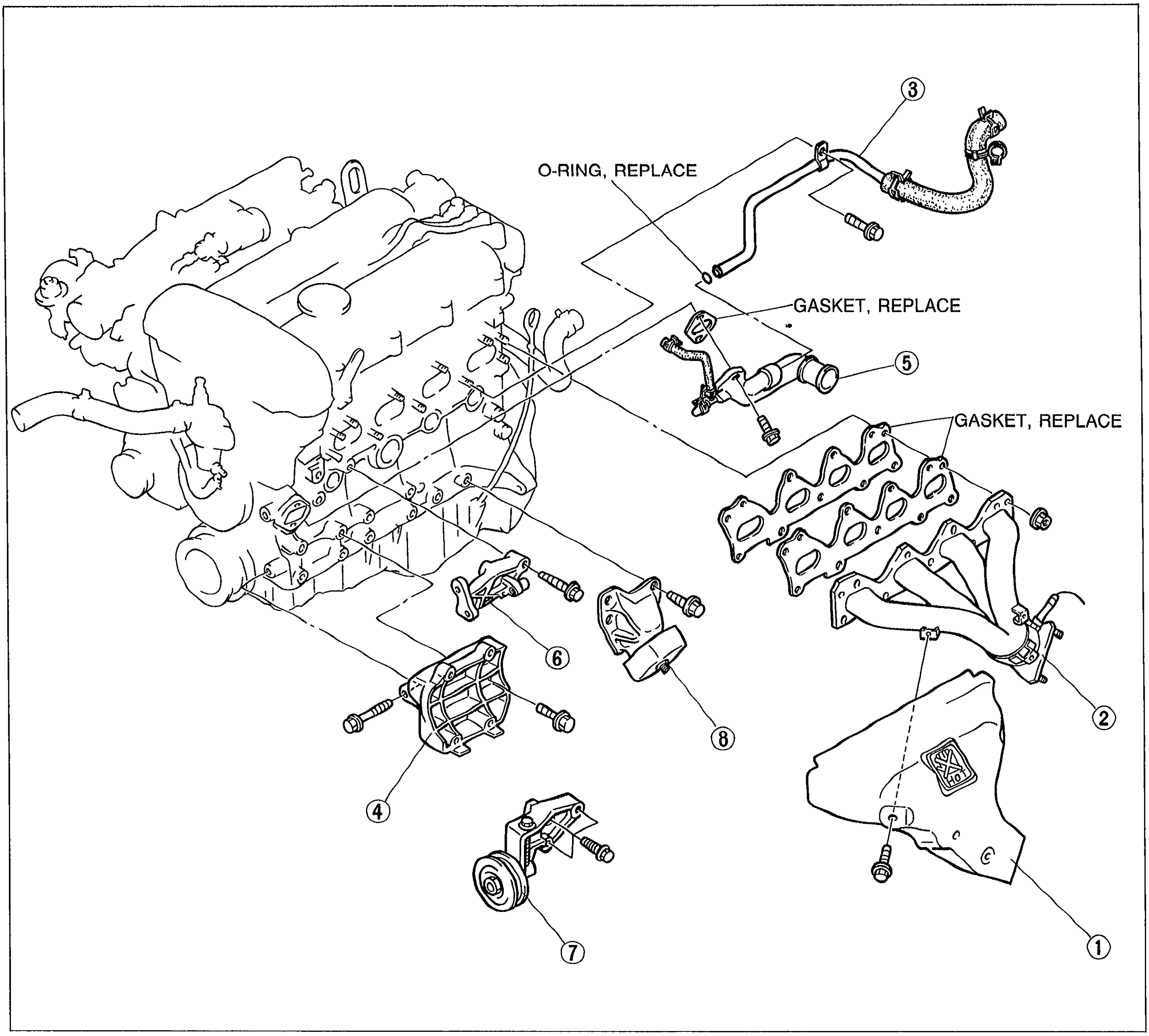
49 0107 680A Engine stand 	For disassembly and assembly of engine	49 L010 1A0 Hanger set, engine stand 	For disassembly and assembly of engine
49 L010 101 Plate (Part of 49 L010 1A0) 	For disassembly and assembly of engine	49 L010 102 Arms (Part of 49 L010 1A0) 	For disassembly and assembly of engine
49 L010 103 Hooks (Part of 49 L010 1A0) 	For disassembly and assembly of engine	49 L010 104 Nuts (Part of 49 L010 1A0)	For disassembly and assembly of engine
49 L010 105 Bolts (Part of 49 L010 1A0) 	For disassembly and assembly of engine	49 L010 106 Bolts (Part of 49 L010 1A0) 	For disassembly and assembly of engine

05U0BX-082

PROCEDURE

Step 1

1. Remove in the order shown in the figure.


③
O-RING, REPLACE
GASKET, REPLACE
⑤
GASKET, REPLACE
②
⑥
⑧
④
⑦
①

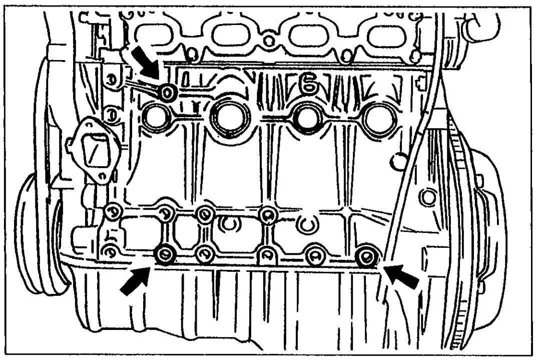
05U0BX-083

1. Exhaust manifold insulator
2. Exhaust manifold
3. Water bypass pipe
4. A/C compressor bracket
5. Water inlet pipe
6. P/S oil pump bracket
7. Idler (A/C)
8. Left engine mount

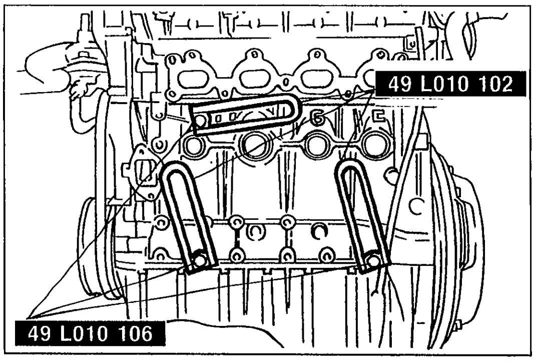
Step 2

Caution

- **When installing the SST (engine hanger), use the holes shown in the figure.**

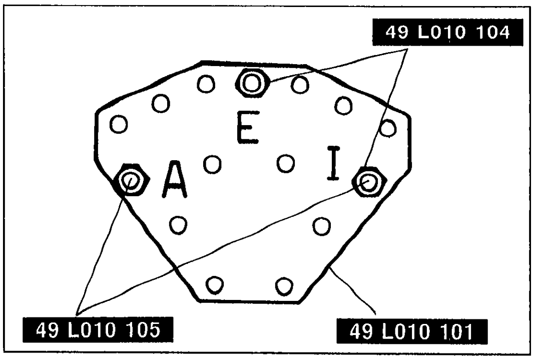


05U0BX-084


49 L010 102
49 L010 106

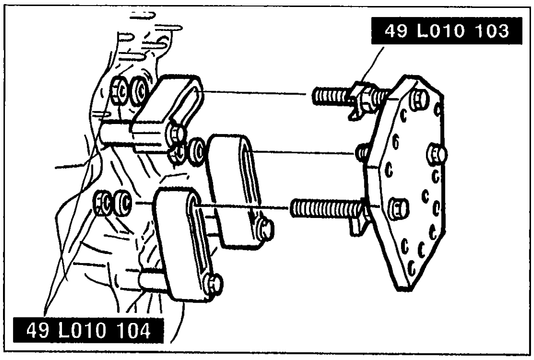
05U0BX-085

1. Install the **SST (arms)** to the holes as shown in the figure, and loosely tighten the **SST (bolts)**.


49 L010 104
E
A
I
49 L010 105
49 L010 101

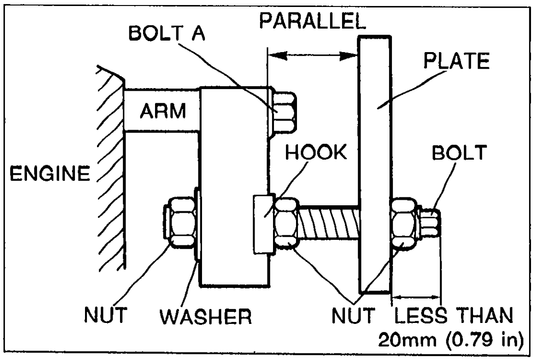
05U0BX-086

2. Assemble the **SST (bolts and plate)** in the specified position.


49 L010 103
49 L010 104

05U0BX-087

3. Assemble the **SST (nuts, hooks, and bolts)**.
4. Install the **SST** to the respective arms.

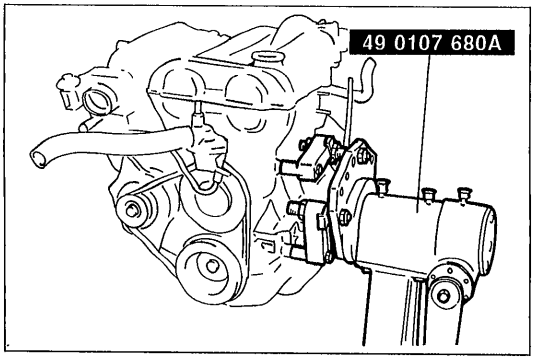

BOLT A
PARALLEL
PLATE
ARM
ENGINE
HOOK
BOLT
NUT
WASHER
NUT
LESS THAN 20mm (0.79 in)

05U0BX-088

Note

- **Adjust the SST (bolts) so that less than 20mm (0.79 in) of thread is exposed.**
- **Make the SST (plate and arms) parallel by adjusting the SST (bolts and nuts).**

5. Tighten the **SST (bolts and nuts)** to affix the **SST** firmly.

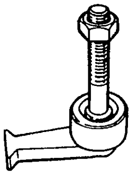
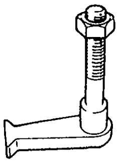
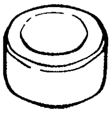
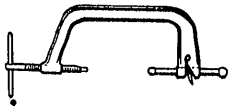
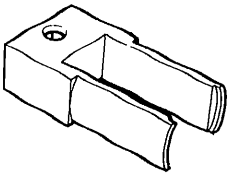
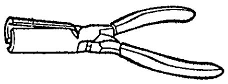
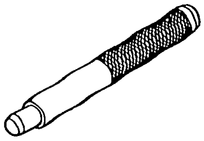

49 0107 680A

05U0BX-089

6. Mount the engine on the **SST (engine stand)**.

DISASSEMBLY

PREPARATION
SST

49 E301 060 Brake, ring gear 	For prevention of engine rotation	49 E301 061 Body (Part of 49 E301 060) 	For prevention of engine rotation
49 E301 062 Collar (Part of 49 E301 060) 	For prevention of engine rotation	49 0636 100A Arm, valve spring lifter 	For removal and installation of valves
49 B012 006 Pivot, valve spring lifter 	For removal and installation of valves	49 S120 170 Remover, valve seal 	For removal of valve seals
49 0221 061A Remover & installer, piston pin 	For removal and installation of piston pins		

05U0BX-090

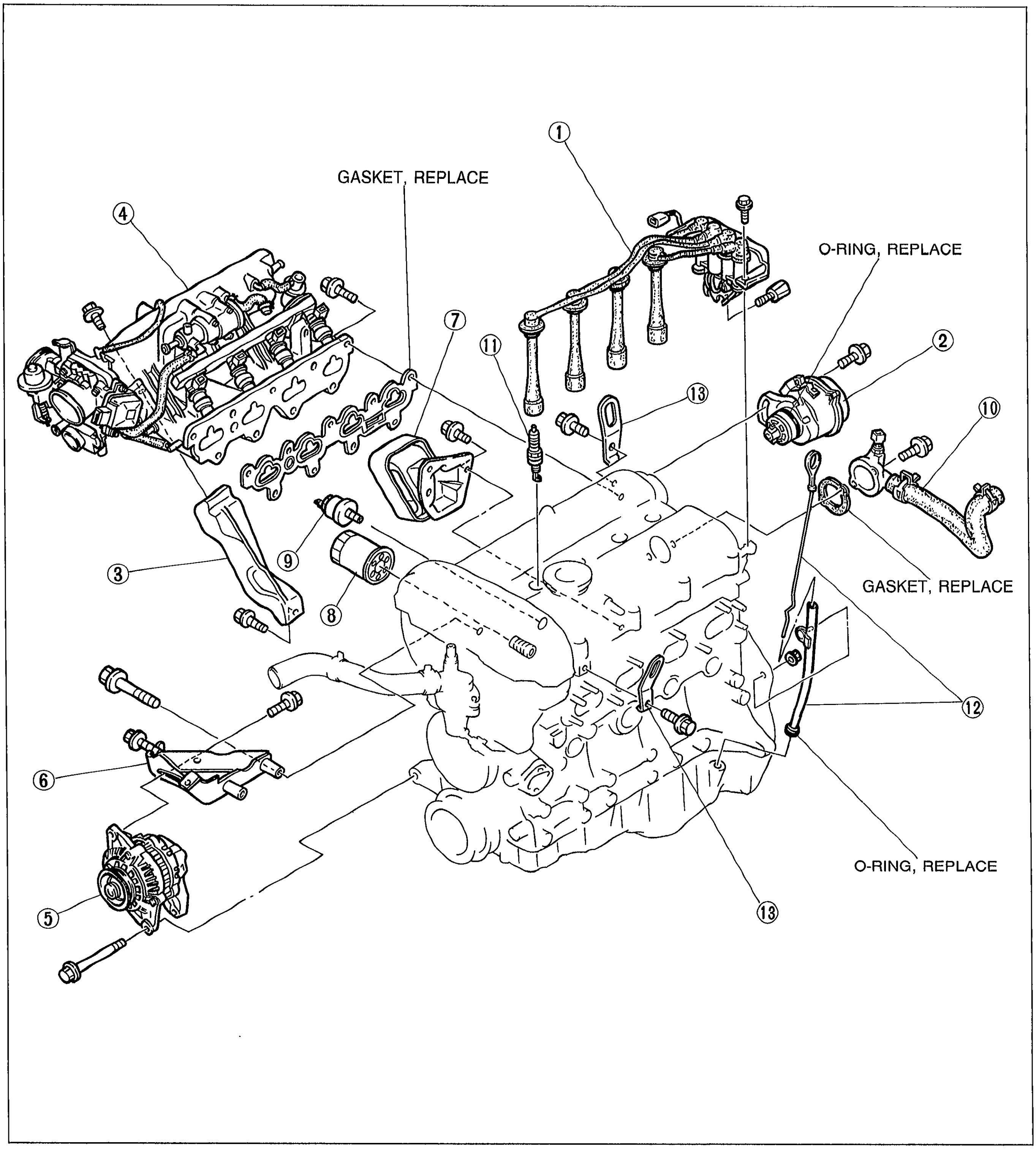
1. Code all identical parts (such as piston, piston rings, connecting rods, and valve springs) so that they can be reinstalled in the cylinder from which they were removed.
2. Clean the parts with a steam cleaner. Blow off any remaining water with compressed air.

Note
- **During disassembly of any part or system, be sure to study its order of assembly. Also, note any deformation, wear, or damage.**

05U0BX-091

AUXILIARY PARTS

1. Drain the engine oil.
2. Disassemble in the order shown in the figure.

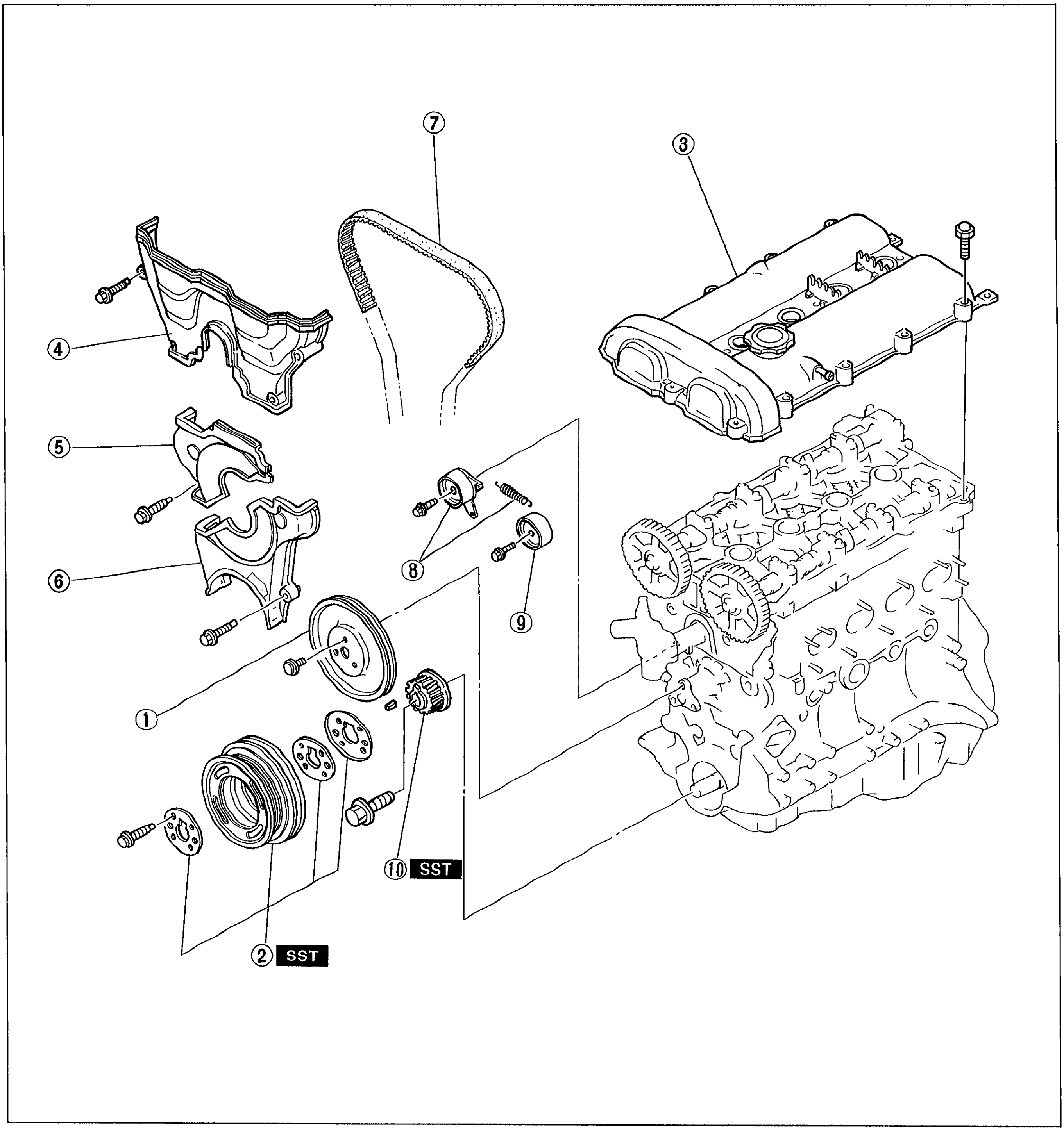

①
GASKET, REPLACE
④
O-RING, REPLACE
⑦
⑪
②
⑬
⑩
GASKET, REPLACE
③
⑨
⑧
⑫
⑥
O-RING, REPLACE
⑤
⑬

05U0BX-092

1. Ignition coil and high-tension lead
2. Crank angle sensor
3. Manifold bracket
4. Intake manifold assembly
5. Alternator
6. Alternator bracket
7. Right engine mount
8. Oil filter
9. Oil pressure gauge sender unit
10. Water outlet pipe
11. Spark plug
12. Oil level gauge and pipe
13. Engine hanger

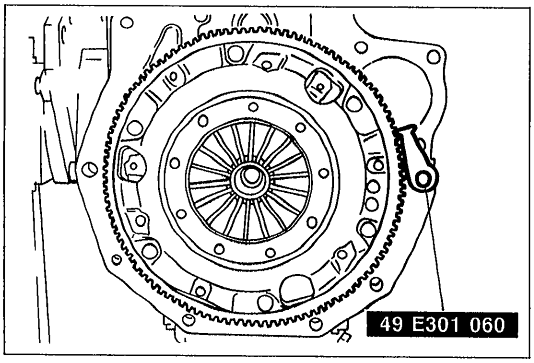
TIMING BELT

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.



05U0BX-093

1. Water pump pulley
2. Crankshaft pulley
   Disassembly Note .... page B–39
3. Cylinder head cover
4. Timing belt cover, upper
5. Timing belt cover, middle
6. Timing belt cover, lower
7. Timing belt
   Disassembly Note .... page B–39
   Inspection.................................. page B–59
8. Tensioner, tensioner spring
   Inspection.................................. page B–59
9. Idler
   Inspection.................................. page B–59
10. Timing belt pulley
    Disassembly Note .... page B–39
    Inspection.................................. page B–59

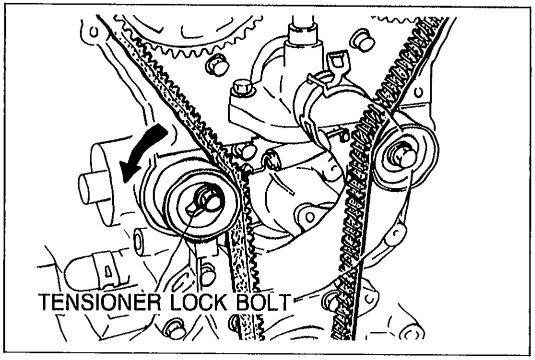


05U0BX-094

Disassembly Note

Crankshaft pulley

1. Hold the flywheel with the **SST**.
2. Loosen the crankshaft pulley lock bolts.
3. Remove the plate, crankshaft pulley, timing belt outer guide plate, and timing belt inner guide plate.



05U0BX-095

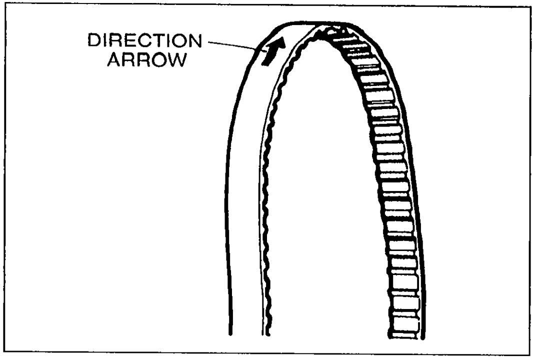
Timing belt

1. Loosen the tensioner lock bolt.

Caution

- **To prevent damage to the tensioner, secure it with a rag.**

2. Temporarily secure the tensioner with the spring fully extended.

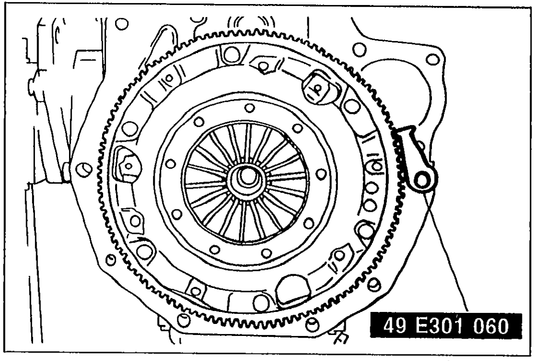


05U0BX-096

Note

- **Mark the timing belt rotation for proper reinstallation.**

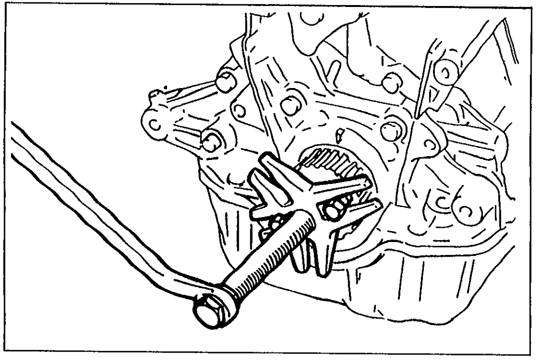
3. Remove the timing belt.



05U0BX-097

Timing belt pulley

1. Hold the flywheel with the **SST**.
2. Loosen the pulley lock bolt.
3. Remove the pulley lock bolt.



05U0BX-098

Note

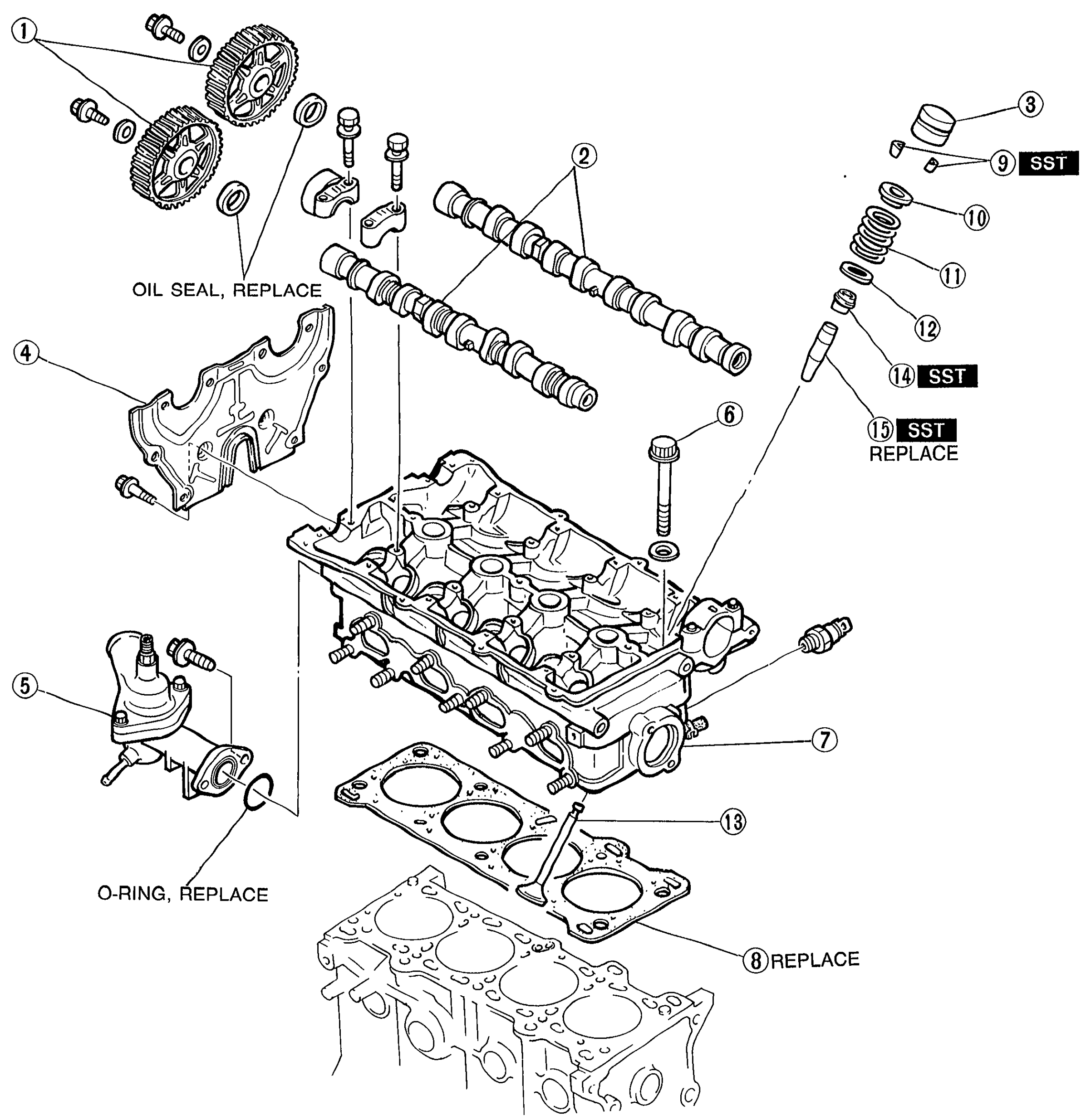
- **If necessary, remove the pulley with a steering wheel puller (commercially available).**

4. Remove the timing belt pulley.
5. Remove the pulley Woodruff key.

DISASSEMBLY

CYLINDER HEAD

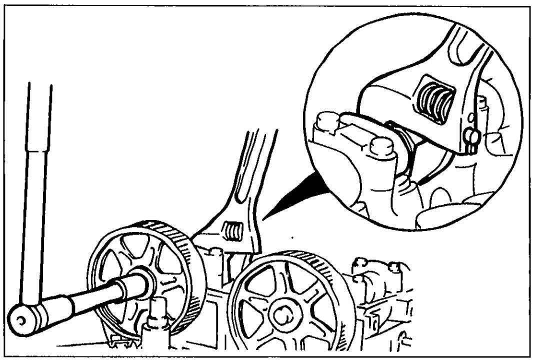
1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.



05U0BX-099

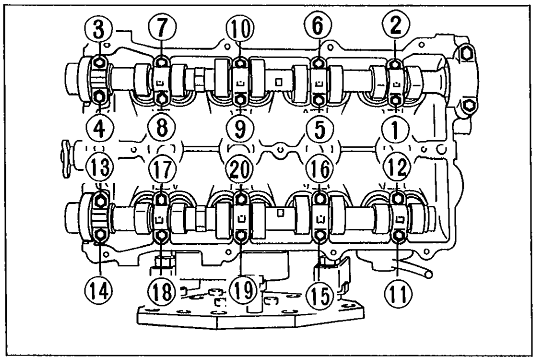
1. Camshaft pulley
    - Disassembly Note .... page B–41
    - Inspection .... page B–59
2. Camshaft
    - Disassembly Note .... page B–41
    - Inspection .... page B–52
3. HLA
    - Disassembly Note .... page B–41
    - Inspection .... page B–54
4. Seal plate
5. Thermostat housing
6. Cylinder head bolt
    - Disassembly Note .... page B–41
7. Cylinder head
    - Inspection .... page B–48
8. Cylinder head gasket
9. Valve keeper
    - Disassembly Note .... page B–41
10. Valve spring seat, upper
11. Valve spring
    - Inspection .... page B–52
12. Valve spring seat, lower
13. Valve
    - Inspection .... page B–49
14. Valve seal
    - Disassembly Note .... page B–42
    - Inspect for wear or damage
15. Valve guide
    - Inspection .... page B–49
    - Replacement .... page B–50

Disassembly Note


05U0BX-100

Camshaft pulley

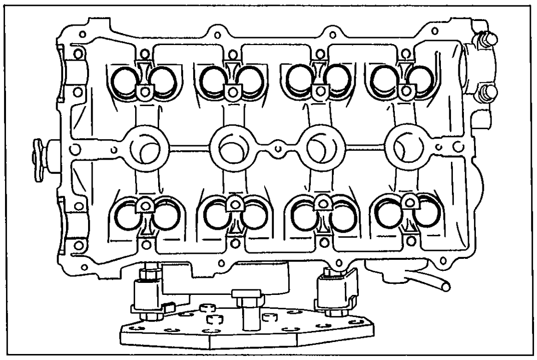
1. Hold the camshaft with a wrench.
2. Remove the camshaft pulley lock bolt.
3. Remove the camshaft pulley.



05U0BX-049

Camshaft

1. Loosen the camshaft cap bolts in two or three steps in the order shown in the figure.
2. Remove the camshaft caps.
3. Remove the camshaft.
4. Remove the camshaft oil seal from the camshaft.

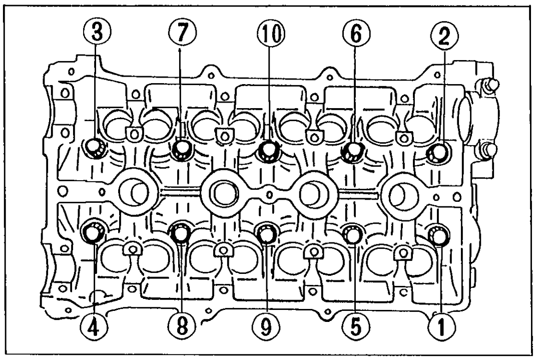

05U0BX-050

HLA

Caution

- **Mark the HLA with a felt pen so that they can be reinstalled in the position from which they were removed.**

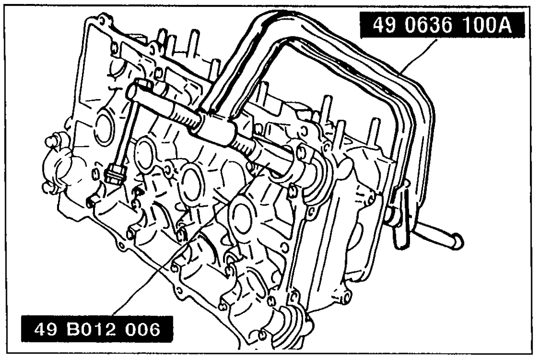
1. Remove the HLA from the cylinder head.



05U0BX-042

Cylinder head bolt

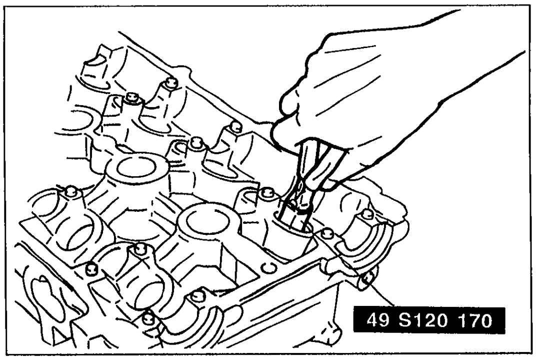
1. Loosen the cylinder head bolts in two or three steps in the order shown in the figure.
2. Remove the cylinder head bolts.



05U0BX-101

Valve keeper

1. Set the **SST** against the upper valve spring seat as shown in the figure.
2. Remove the valve keepers.



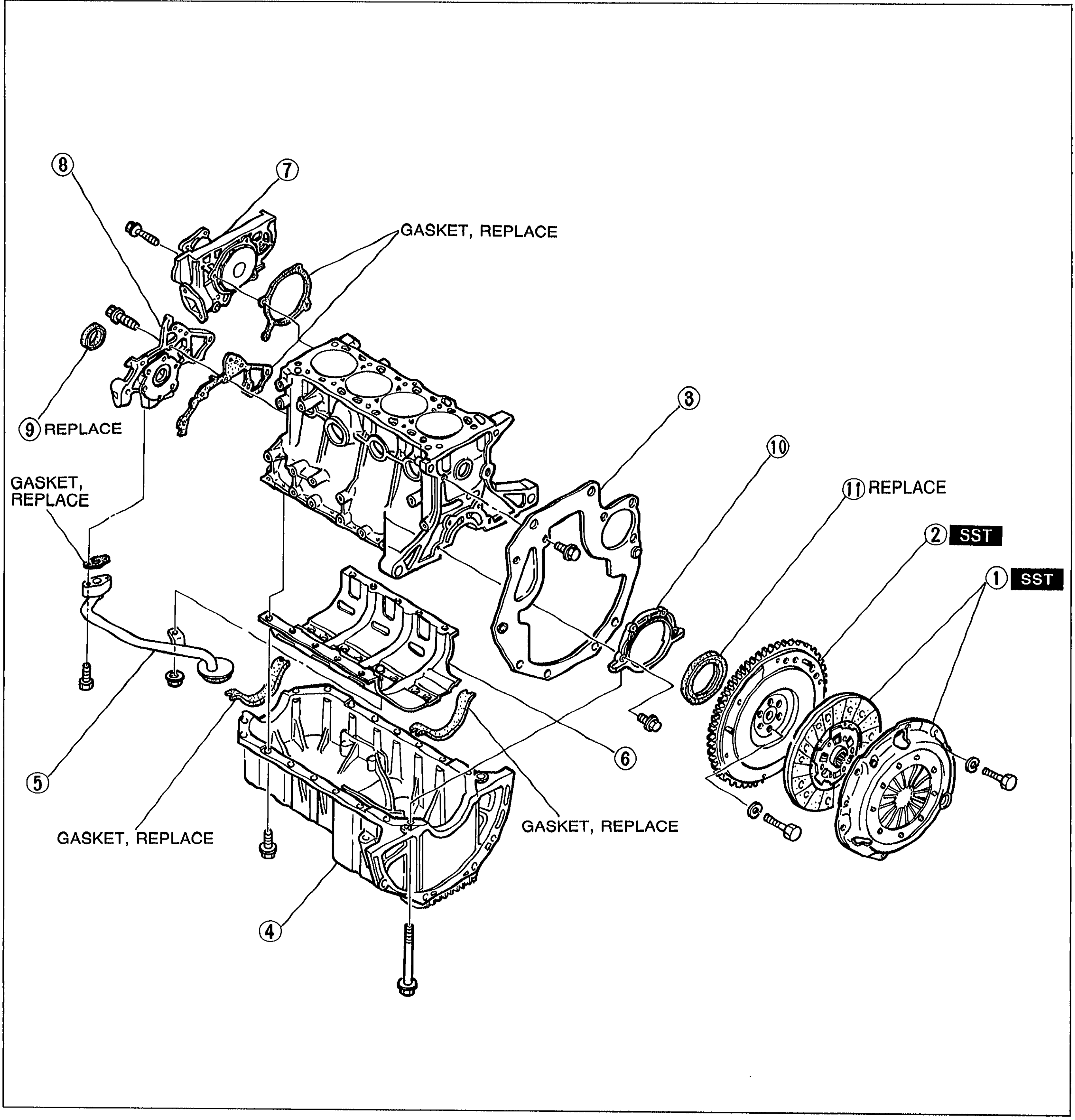
05U0BX-102

Valve seal

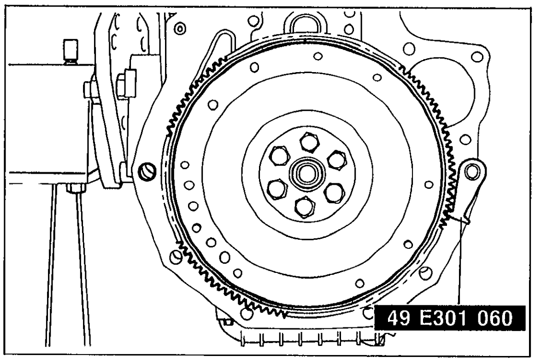
1. Remove the valve seal with the **SST**.

CYLINDER BLOCK (EXTERNAL PARTS)

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.


⑧
⑦
GASKET, REPLACE
⑨ REPLACE
GASKET, REPLACE
③
⑩
⑪ REPLACE
② SST
① SST
⑤
⑥
GASKET, REPLACE
GASKET, REPLACE
④
05U0BX-103

1. Clutch cover, clutch disc
   Service .... page H–14
2. Flywheel
   Disassembly Note .... page B–44
   Inspect for wear or damage
3. End plate
4. Oil pan
   Disassembly Note .... page B–44
   Inspect for damage
5. Oil strainer
6. Oil pan baffle
   Disassembly Note .... page B–44
7. Water pump
   Service....................................... page E– 9
8. Oil pump
   Service .... page D–11
9. Front oil seal
   Disassembly Note .... page B–44
10. Rear cover
11. Rear oil seal
    Disassembly Note .... page B–44

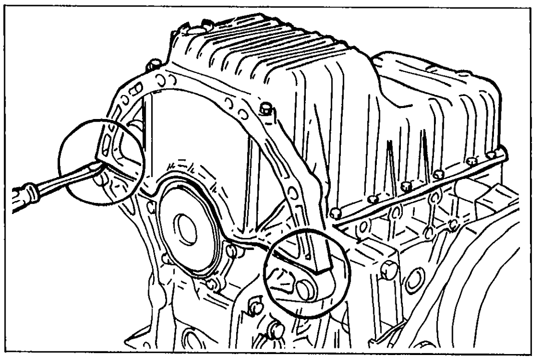


05U0BX-104

Disassembly Note

Flywheel

1. Hold the flywheel with the **SST**.
2. Remove the flywheel lock bolts.
3. Remove the flywheel.



05U0BX-105

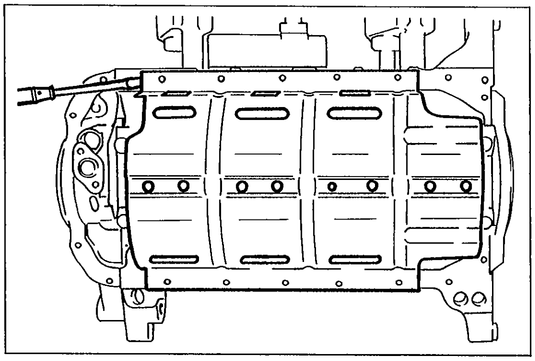
Oil pan

1. Remove the oil pan mounting bolts.

Caution

- **Do not force a prying tool between the cylinder block and the oil pan, which may damage the contact surfaces.**
- **Do not damage or scratch the contact surfaces when removing the old sealant.**

2. Insert a screwdriver or a suitable tool only at the points shown in the figure.
3. Remove the oil pan.



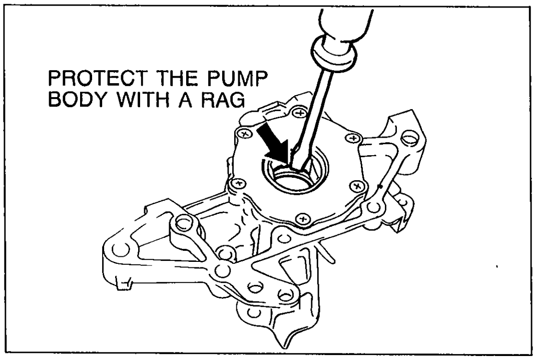
05U0BX-106

Oil pan baffle

Caution

- **Do not bend the baffle when prying it loose.**

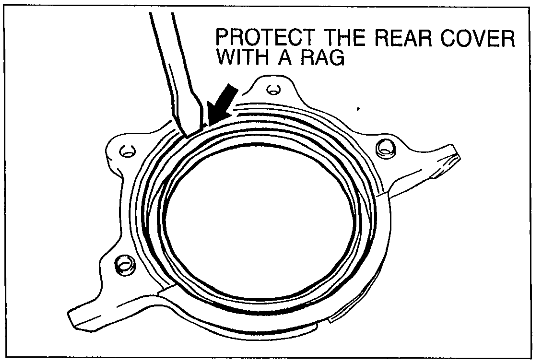
1. Insert a screwdriver or a suitable tool between the cylinder block and the baffle to separate them.
2. Remove the baffle.



05U0BX-107

Front oil seal

1. Remove the oil seal with a screwdriver protected with a rag.



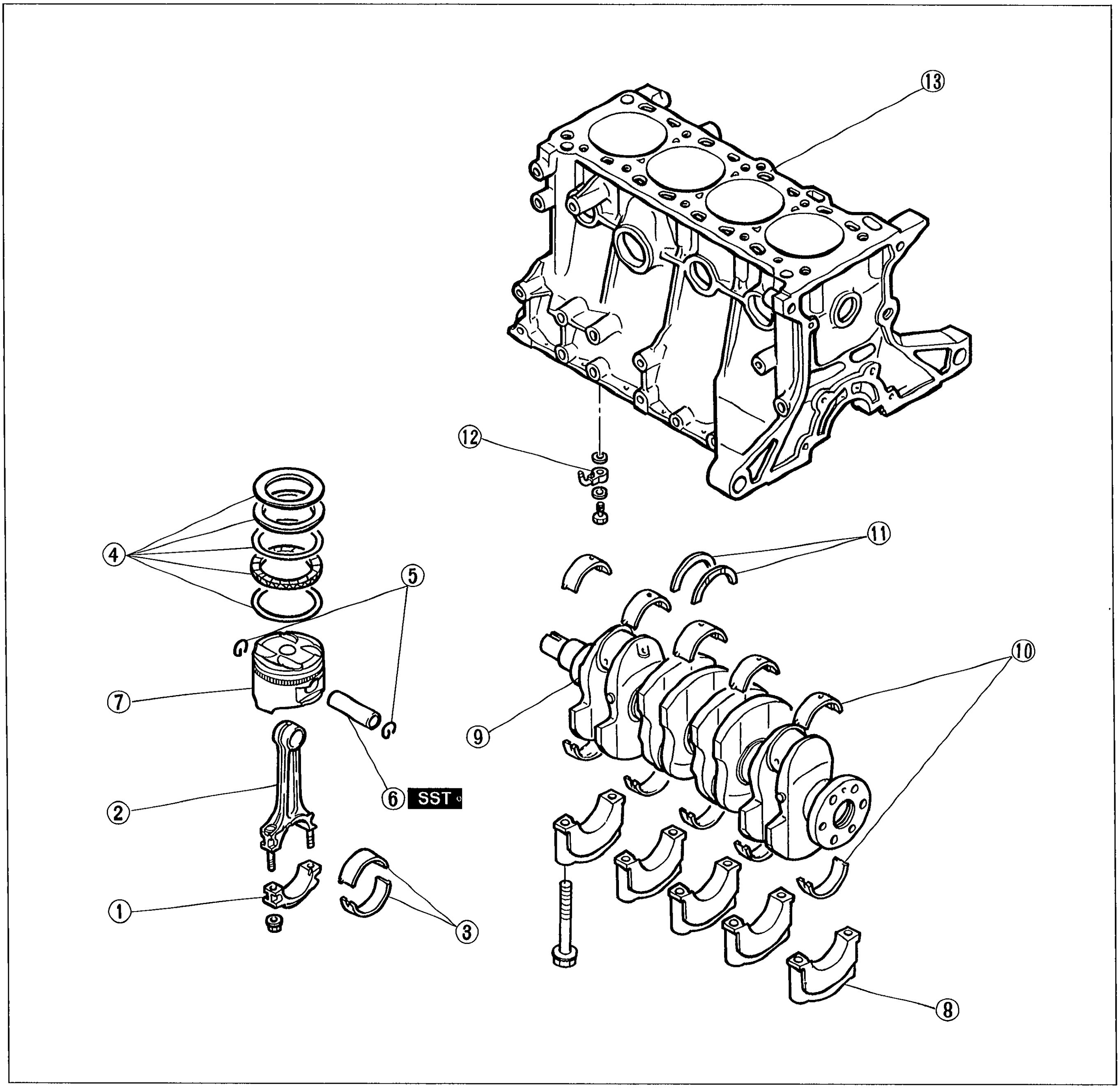
05U0BX-108

Rear oil seal

1. Remove the oil seal with a screwdriver protected with a rag.

CYLINDER BLOCK (INTERNAL PARTS)

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.

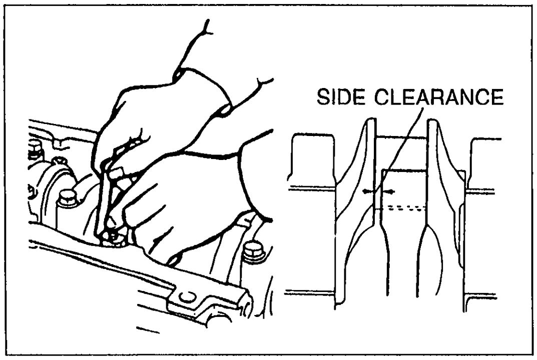


05U0BX-099

1. Connecting rod cap
   - Disassembly Note .... page B–46
2. Connecting rod
   - Disassembly Note .... page B–46
   - Inspection .... page B–57
3. Connecting rod bearing
   - Inspection .... page B–58
4. Piston ring
   - Disassembly Note .... page B–46
   - Inspection .... page B–56
5. Piston pin clip
6. Piston pin
   - Disassembly Note .... page B–46
   - Inspection .... page B–57
7. Piston
   - Inspection .... page B–56
8. Main bearing cap
   - Disassembly Note .... page B–47
9. Crankshaft
   - Disassembly Note .... page B–47
   - Inspection .... page B–58
10. Main bearing
    - Inspection .... page B–58
11. Thrust bearing
12. Oil jet
    - Inspection .... page B–55
13. Cylinder block
    - Inspection .... page B–54

Disassembly Note

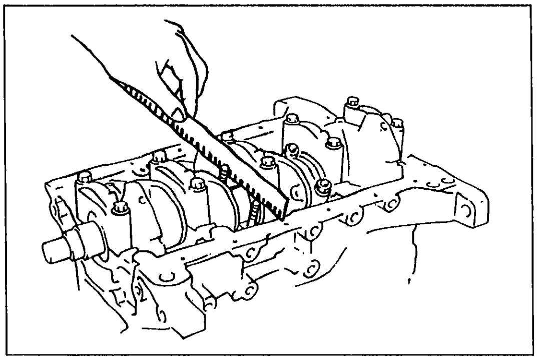
Connecting rod cap



05U0BX-110

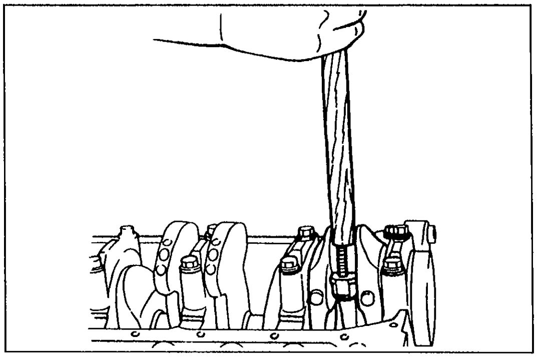
1. Before removing the connecting rod caps, measure the connecting rod side clearance. (Refer to page B–65.)

Connecting rod



05U0BX-111

1. Before removing the connecting rods, measure the connecting rod oil clearance. (Refer to page B–65.)



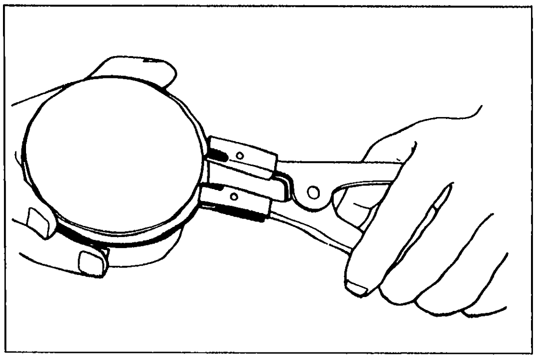
05U0BX-112

2. Remove the Plastigage from the crankpin journals.

Caution
- **Do not scratch the crankshaft journal or the cylinder wall.**

3. Use the handle of a hammer to remove the piston and connecting rod assembly through the top of the cylinder block.

Piston ring

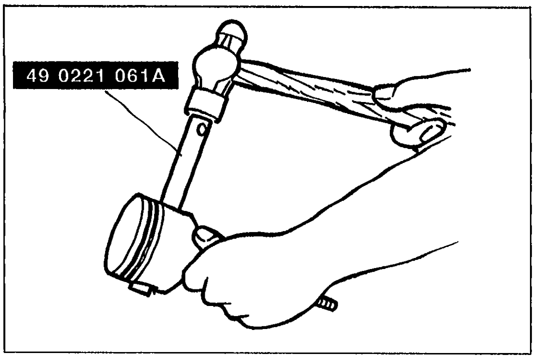


05U0BX-113

Caution
- **Do not apply excessive tension, which may cause the rings to snap out.**

1. Remove the piston rings with a piston ring expander (commercially available).

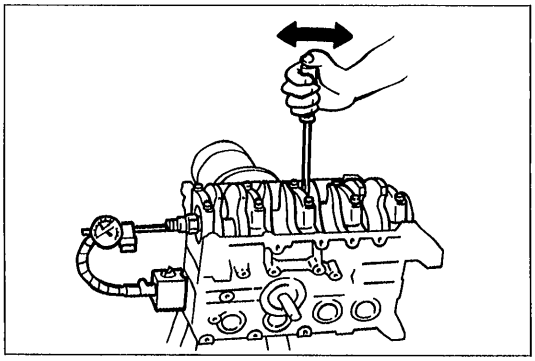
Piston pin



05U0BX-114

Caution
- **Mark the connecting rod direction for proper reassembly.**

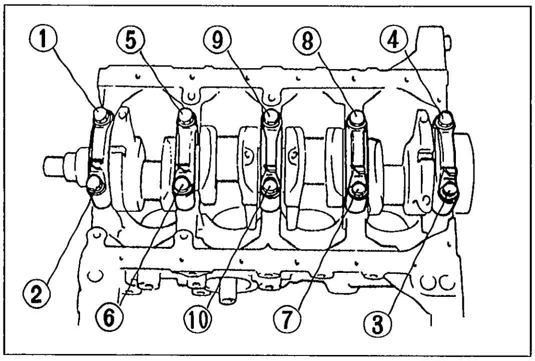
1. Remove the piston pin with the **SST**.



05U0BX-115

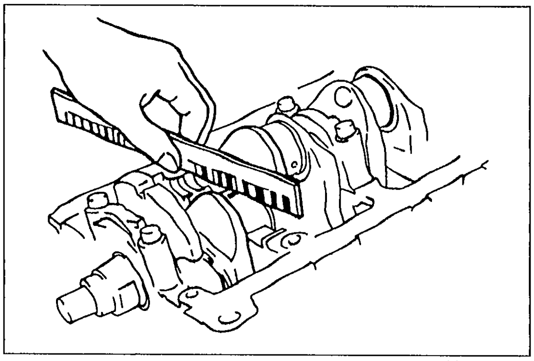
Main bearing cap

1. Before removing the main bearing caps, measure the crankshaft end play. (Refer to page B–64.)



05U0BX-116

2. Loosen the main bearing cap bolts in two or three steps in the order shown in the figure.
3. Remove the main bearing caps.



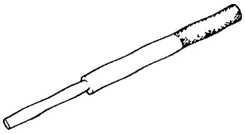
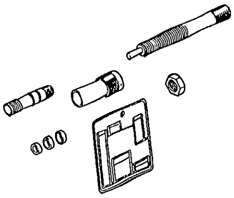
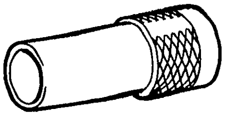
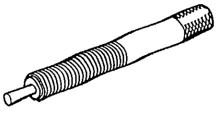
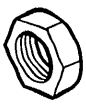
05U0BX-117

Crankshaft

1. Before removing the crankshaft, measure the main bearing oil clearances. (Refer to page B–63.)

INSPECTION / REPAIR

PREPARATION
SST

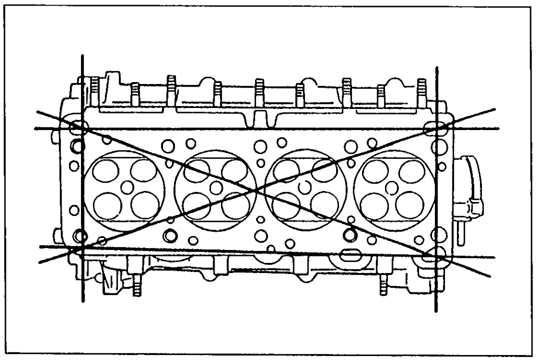
49 B012 005 Remover & installer, valve guide 	For removal of valve guide	49 L012 0A0 Installer set, valve seal & valve guide 	For installation of valve guide
49 L012 002 Body (Part of 49 L012 0A0) 	For installation of valve guide	49 L012 003 Installer (Part of 49 L012 0A0) 	For installation of valve guide
49 L012 004 Nut (Part of 49 L012 0A0) 	For installation of valve guide		

05U0BX-118

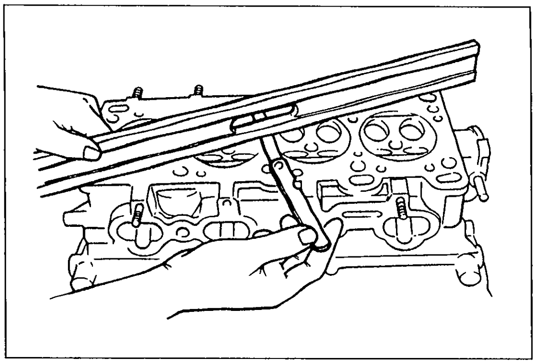
1. Clean all parts, being sure to remove all gasket fragments, dirt, oil or grease, carbon, moisture residue, and other foreign materials.
2. Inspection and repairs must be performed in the order specified.

Caution
- **Do not damage the joints or friction surfaces of aluminum alloy components (such as the cylinder head or pistons).**

05U0BX-119



05U0BX-120



05U0BX-121

CYLINDER HEAD

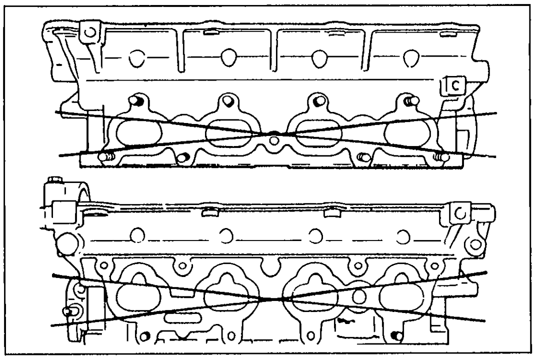
1. Inspect the cylinder head for damage, cracks, and leakage of water and oil. Replace the cylinder head if necessary.
2. Measure the cylinder head distortion in the six directions shown in the figure.

   Distortion: 0.15mm (0.006 in) max.

   Caution
   - **Before grinding the cylinder head, check the following and repair or replace the cylinder head as necessary.**
     Sinking of valve seats
     Damage of manifold contact surface
     Camshaft oil clearances and end play

3. If the cylinder head distortion exceeds specification, grind the cylinder head surface.
   If the cylinder head height is not within specification, replace it.

   Height: 133.8—134.0mm (5.268—5.276 in)
   Grinding: 0.20mm (0.008 in) max.



05U0BX-289

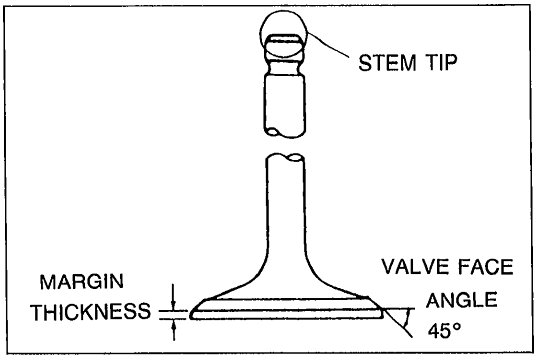
4. Measure the manifold contact surface distortion in the four directions shown in the figure.

   Distortion: 0.15mm (0.006 in) max.

5. If distortion exceeds specification, grind the surface or replace the cylinder head.

VALVE MECHANISM

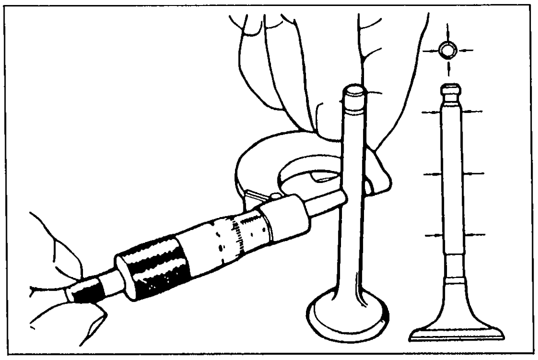
Valve and Valve Guide



05U0BX-122

1. Inspect each valve for the following. Replace or resurface the valve if necessary.
   (1) Damaged or bent stem.
   (2) Rough or damaged face.
   (3) Damaged or unevenly worn stem tip.
2. Measure the valve head margin thickness of each valve. Replace the valve if necessary.

   Margin thickness
   IN : 1.0mm (0.039 in)
   EX: 1.0mm (0.039 in)



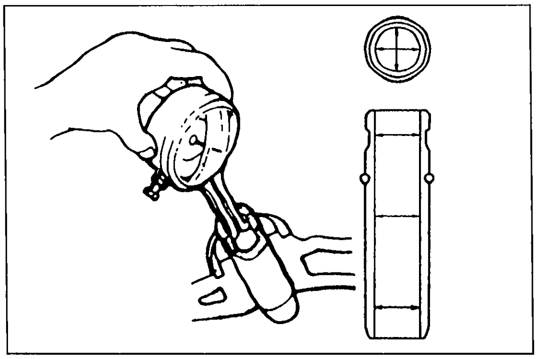
05U0BX-123

3. Measure the length of each valve at the points shown.

   Length
   Standard
   IN : 105.29mm (4.1452 in)
   EX: 105.39mm (4.1492 in)
   Minimum
   IN : 104.79mm (4.1256 in)
   EX: 104.89mm (4.1295 in)

4. Measure the stem diameter of each valve.

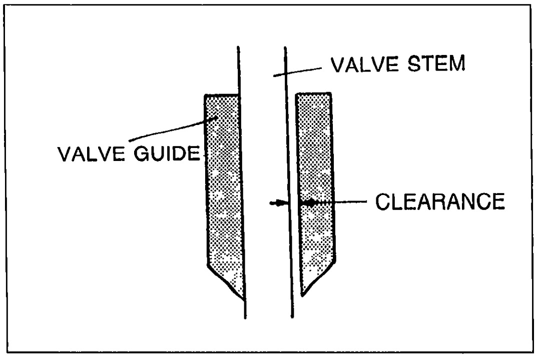
   Diameter
   IN : 5.970—5.985mm (0.2350—0.2356 in)
   EX: 5.965—5.980mm (0.2348—0.2354 in)



05U0BX-124

5. Measure the inner diameter of each valve guide at the points shown.

   Inner diameter
   IN : 6.01—6.03mm (0.2366—0.2374 in)
   EX: 6.01—6.03mm (0.2366—0.2374 in)

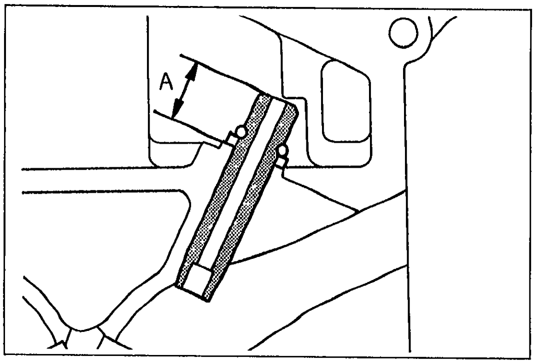


05U0BX-125

6. Calculate the valve stem to guide clearance. Subtract the outer diameter of the valve stem from the inner diameter of the corresponding valve guide.

   Clearance
   IN : 0.025—0.060mm (0.0010—0.0024 in)
   EX: 0.030—0.065mm (0.0012—0.0026 in)
   Maximum: 0.20mm (0.008 in)

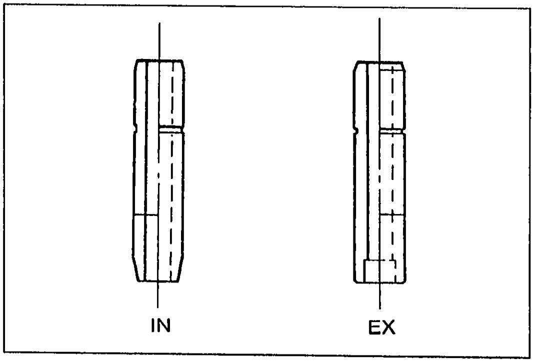
7. If the clearance exceeds specification, replace the valve and/or valve guide.



05U0BX-126

8. Measure the height A of each valve guide. Replace the valve guide if necessary.

Height: 16.8—17.4mm (0.661—0.685 in)

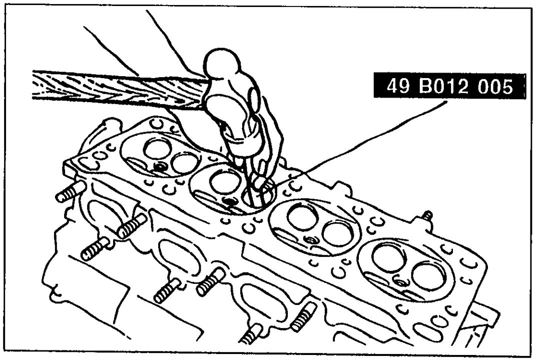


05U0BX-127

Replacement of valve guide

Note

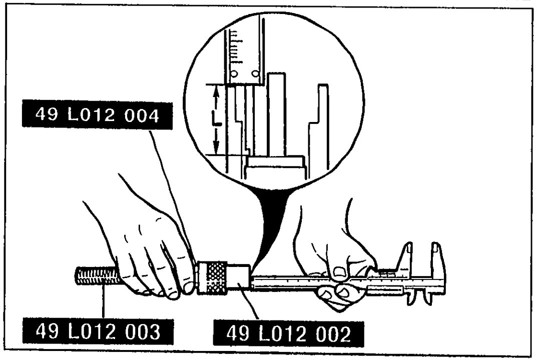
- **Although the shapes of the intake and exhaust valve guides are different, use the exhaust valve guide on both sides as a replacement.**



9MU0B2-112

Removal

1. Remove the valve guide from the side opposite the combustion chamber with the **SST**.



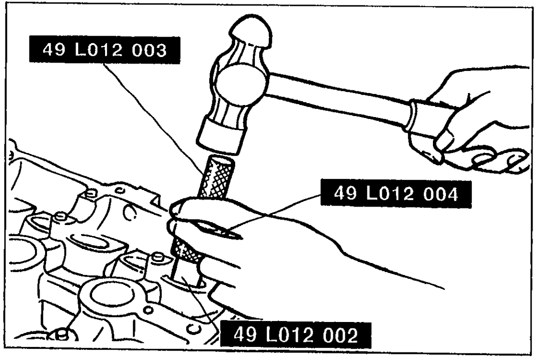
05U0BX-128

Installation

1. Assemble the **SST** so that depth **L** is as specified.

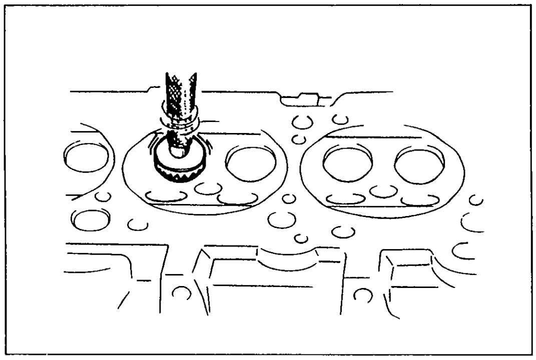
Depth L: 16.8—17.4mm (0.661—0.685 in)

2. Tighten the locknut.



05U0BX-129

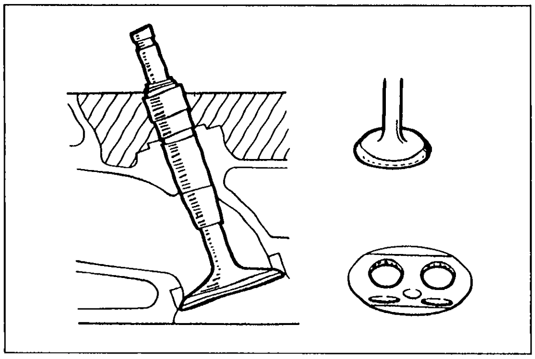
3. Tap the valve guide in from the side opposite the combustion chamber until the **SST** contacts the cylinder head.
4. Verify that the valve guide height is within specification.
5. If not within specification, repeat Steps 1—4.



05U0BX-130

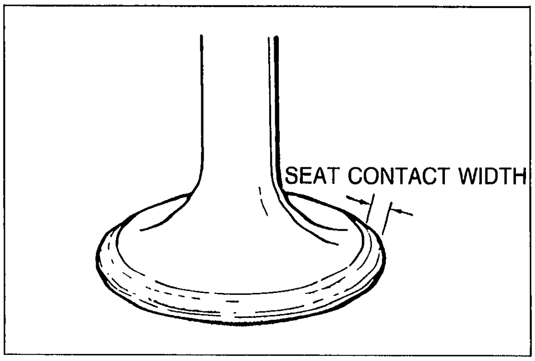
Valve Seat

1. Inspect the contact surface of each valve seat and valve face for the following:
   (1) Roughness.
   (2) Damage.
2. If necessary, resurface the valve seat with a **45°** valve seat cutter and/or resurface the valve face.



05U0BX-131

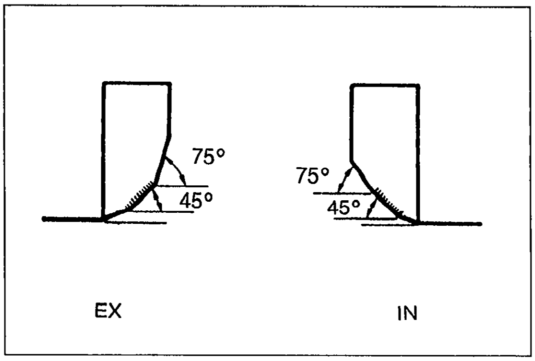
3. Apply a thin coat of Prussian blue to the valve face.
4. Inspect the valve seating by pressing the valve against the seat.
   (1) If blue does not appear 360° around the valve face, replace the valve.
   (2) If blue does not appear 360° around the valve seat, resurface the seat.



05U0BX-132

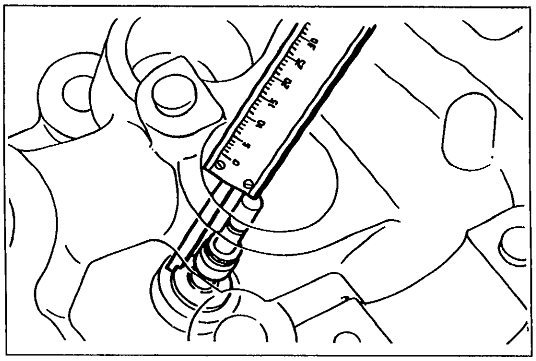
5. Measure the seat contact width.

   Width: 0.8—1.4mm (0.031—0.055 in)



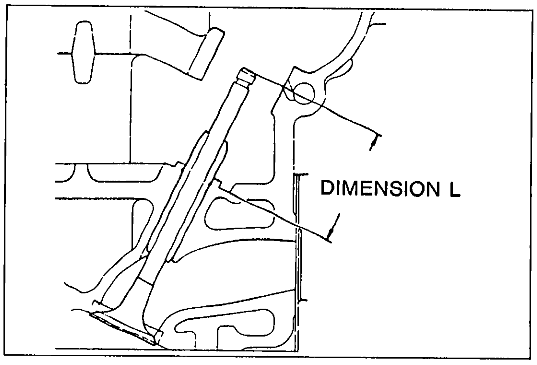
05U0BX-133

6. Verify that the valve seating position is at the center of the valve face.
   (1) If the seating position is too high, correct the valve seat with a **75°** cutter and a **45°** cutter.
   (2) If the seating position is too low, correct the valve seat with a **35° (IN)** or **15° (EX)** cutter and a **45°** cutter.
7. Seat the valve to the valve seat with lapping compound.



05U0BX-134

8. Inspect the sinking of the valve seat.

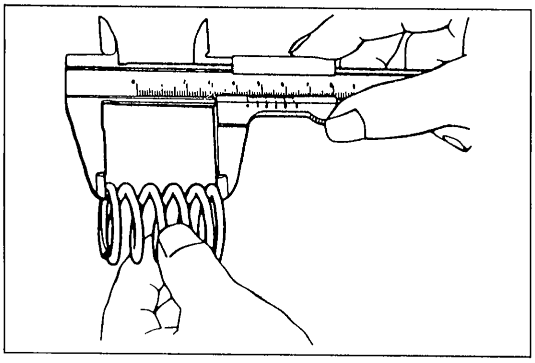


05U0BX-135

9. Measure the protruding length (dimension **L**) of the valve stem.

Dimension L: 43.5mm (1.713 in)

(1) If **L** is **43.5—44.0mm (1.713—1.732 in)**, no correction needed.
(2) If **L** is **44.1—45.0mm (1.736—1.772 in)**, adjust with washer on spring seat area of cylinder head.
(3) If **L** is **45.1mm (1.776 in) or more**, replace cylinder head.



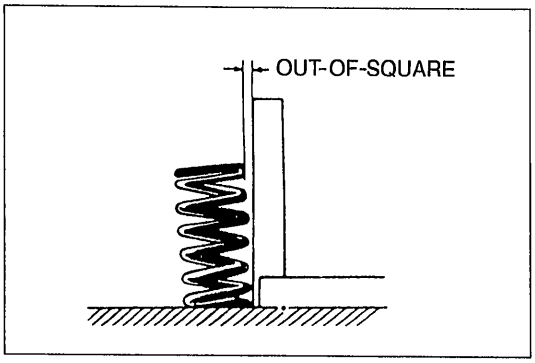
05U0BX-136

Valve Spring

1. Inspect each valve spring for cracks or damage.
2. Measure the free length and out-of-square. Replace the valve spring if necessary.

Free length
Standard
IN : 48.0mm (1.890 in)
EX: 48.3mm (1.902 in)
Minimum
IN : 47.0mm (1.850 in)
EX: 47.3mm (1.862 in)

Out-of-square
IN : 1.68mm (0.0661 in) max.
EX: 1.69mm (0.0665 in) max.

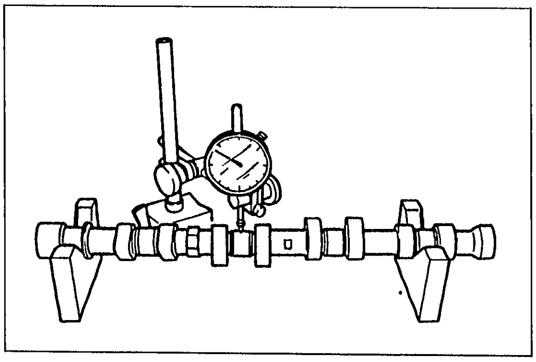


05U0BX-137

CAMSHAFT

1. Set the front and rear journals on V-blocks.
2. Measure the camshaft runout. Replace the camshaft if necessary.

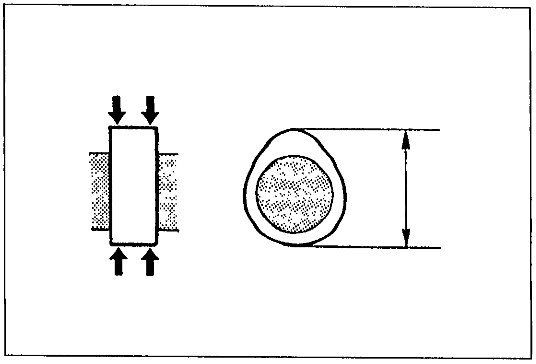
Runout: 0.03mm (0.0012 in) max.



05U0BX-138

3. Inspect the camshaft for wear or damage. Replace the camshaft if necessary.
4. Measure the cam lobe heights at the two points as shown.

Height
Standard
IN : 40.888mm (1.6098 in)
EX: 40.889mm (1.6098 in)
Minimum
IN : 40.688mm (1.6019 in)
EX: 40.689mm (1.6019 in)



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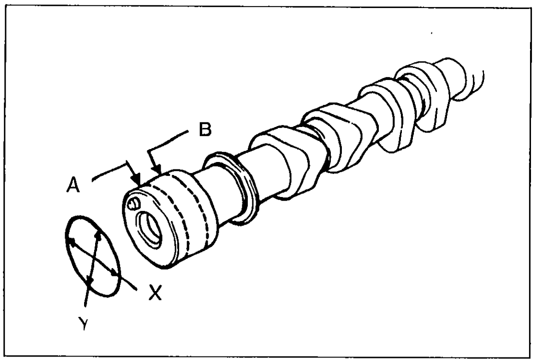
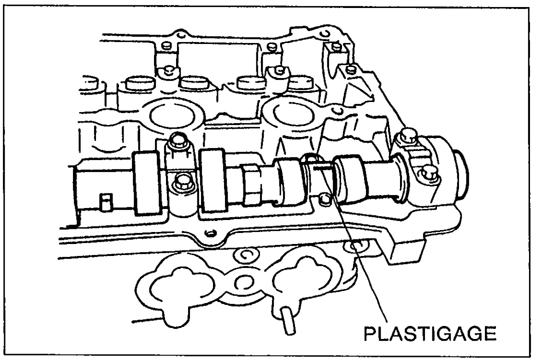


05U0BX-140

5. Measure the journal diameters in X and Y directions at the two points (A and B) shown.

Diameter:
25.940—25.965mm (1.0213—1.0222 in)
Out-of-round: 0.05mm (0.002 in) max.

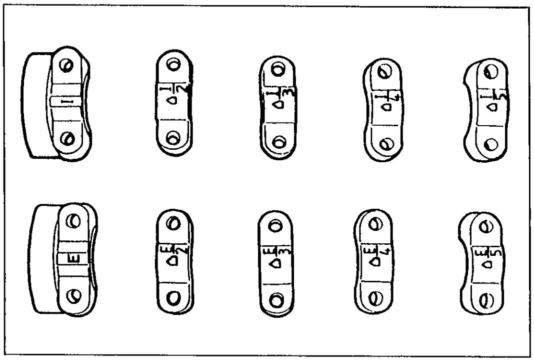


05U0BX-141

6. Measure the camshaft journal oil clearances.

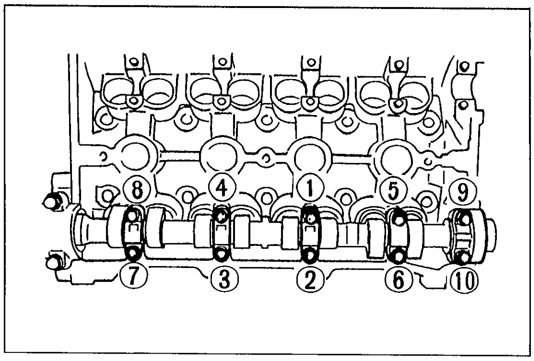
Caution
- **Do not install the HLA when measuring the oil clearance.**

(1) Remove all foreign material and oil from the journals and bearing surface.
(2) Set the camshaft onto the cylinder head.
(3) Position Plastigage atop the journals in the axial direction.



05U0BX-142

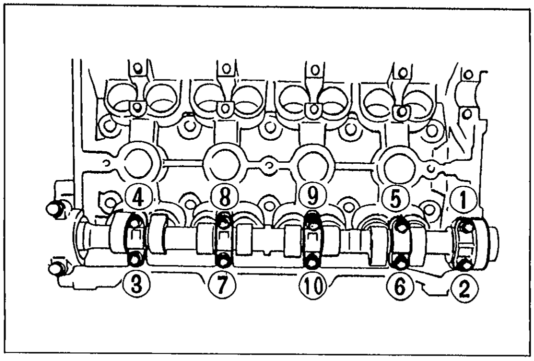
(4) Install the camshaft caps according to the cap number and arrow mark.



05U0BX-143

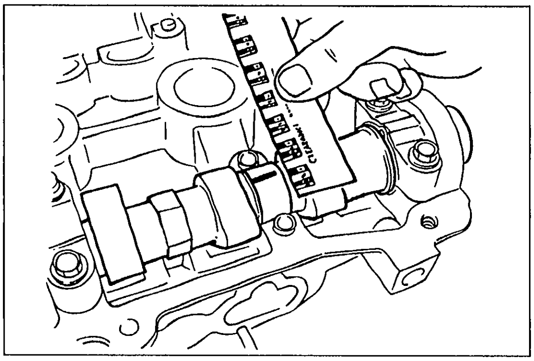
(5) Install the camshaft cap bolts and tighten them in two or three steps in the order shown in the figure.

Tightening torque:
11.3—14.2 N·m (1.15—1.45 m-kg, 100—126 in-lb)



05U0BX-144

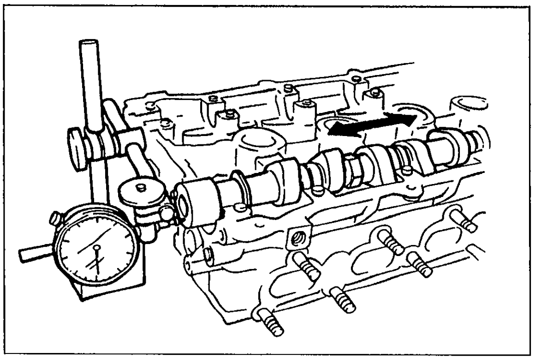
(6) Loosen the camshaft cap bolts in two or three steps in the order shown in the figure.
(7) Remove the camshaft caps.


05U0BX-145

(8) Measure the oil clearances.

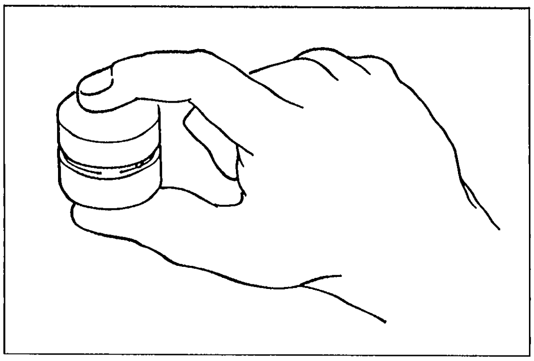
Oil clearance:
0.035—0.081mm (0.0014—0.0032 in)
Maximum: 0.15mm (0.006 in)

(9) If the oil clearance exceeds specification, replace the cylinder head.


05U0BX-146

7. Measure the camshaft end play. If the end play exceeds specification, replace the camshaft and/or the cylinder head.

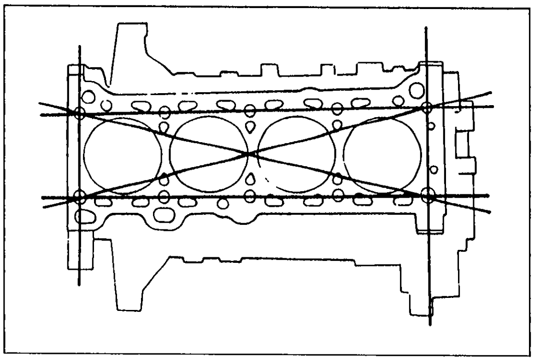
End play : 0.07—0.19mm (0.0028—0.0075 in)
Maximum: 0.20mm (0.008 in)


05U0BX-147

HLA

Caution
- **Do not attempt to repair the HLA.**

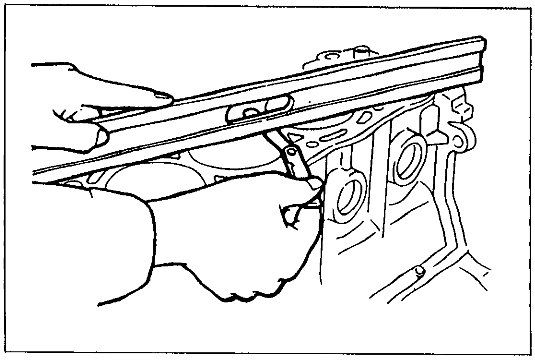
1. Inspect the HLA friction surfaces for wear or damage. Replace the HLA if necessary.
2. Hold the bucket body and press the plunger by hand. If the plunger moves, replace the HLA.


05U0BX-148

CYLINDER BLOCK

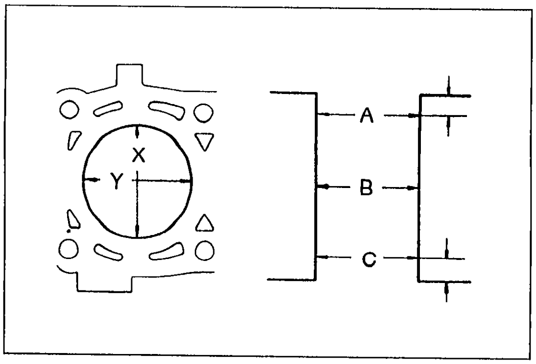
1. Inspect the cylinder block for the following. Repair or replace the cylinder block as necessary.
   (1) Leakage damage.
   (2) Cracks.
   (3) Scoring of wall.
2. Measure the distortion of the top surface of the cylinder block in the six directions shown in the figure.

Distortion: 0.15mm (0.006 in) max.


05U0BX-149

3. If the distortion exceeds specification, repair by grinding or replace the cylinder block.

Height : 221.5mm (8.720 in)
Grinding: 0.20mm (0.008 in) max.



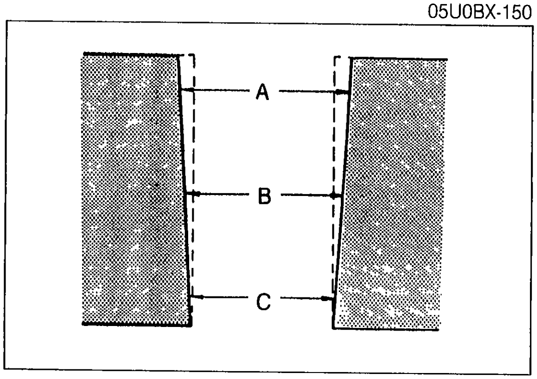
05U0BX-150

4. Measure the cylinder bores in X and Y directions at three levels (A, B, and C) in each cylinder as shown.

Cylinder bore

mm (in)

Bore size	Diameter
Standard	78.006—78.013 (3.0711—3.0714)
0.25 (0.010) oversize	78.256—78.263 (3.0809—3.0812)
0.50 (0.020) oversize	78.506—78.513 (3.0908—3.0911)



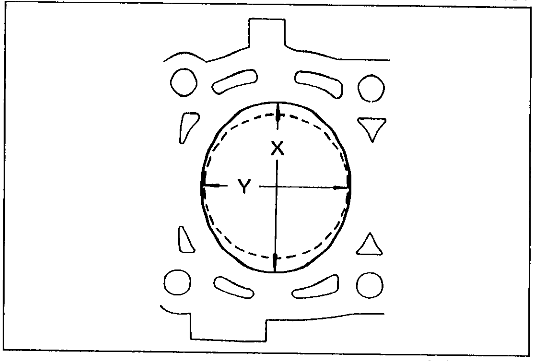
05U0BX-151

Caution

- **The boring size should be based on the size of an oversize piston and be the same for all cylinders.**

(1) If the cylinder bore exceeds the maximum, rebore the cylinder to oversize.
(2) If the difference between measurements A and C exceeds the maximum taper, rebore the cylinder to oversize.

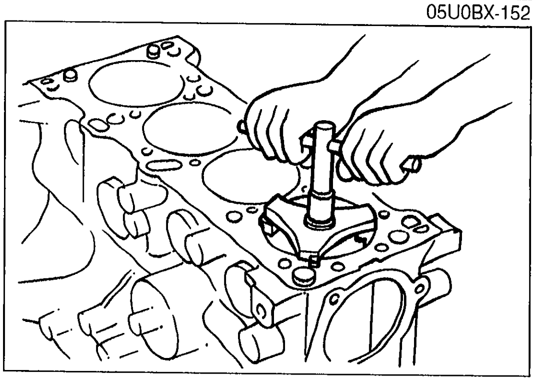
Taper: 0.019mm (0.0007 in) max.



05U0BX-152

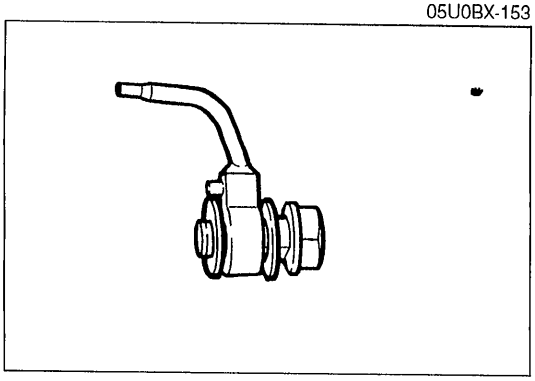
(3) If the difference between measurements X and Y exceeds the maximum out-of-round, rebore the cylinder to oversize.

Out-of-round: 0.019mm (0.0007 in) max.



05U0BX-153

5. If the upper part of a cylinder wall shows uneven wear, remove the ridge with a ridge reamer.



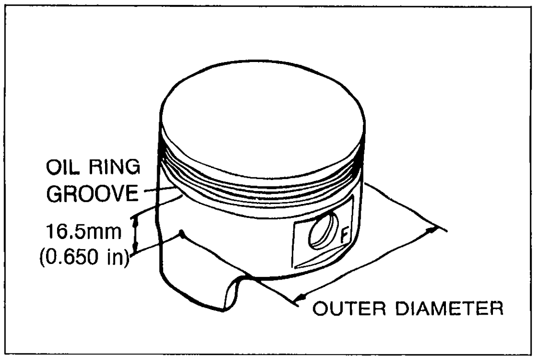
05U0BX-154

OIL JET

1. Push the check ball and verify that it moves smoothly.
2. Blow through the oil jet and verify that air flows.

PISTON, PISTON RING, AND PISTON PIN

Piston



05U0BX-155

Caution

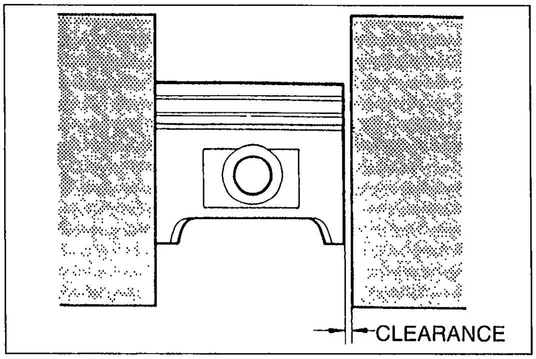
- **If the piston is replaced, the piston rings must also be replaced.**

1. Inspect the outer circumferences of all pistons for seizure or scoring. Replace the piston if necessary.
2. Measure the outer diameter of each piston at a right angle **(90°)** to the piston pin, **16.5mm (0.650 in)** below the oil ring land lower edge.

Piston diameter

mm (in)

Piston size	Diameter
Standard	77.954—77.974 (3.0690—3.0698)
0.25 (0.010) oversize	78.211—78.217 (3.0792—3.0794)
0.50 (0.020) oversize	78.461—78.467 (3.0890—3.0892)



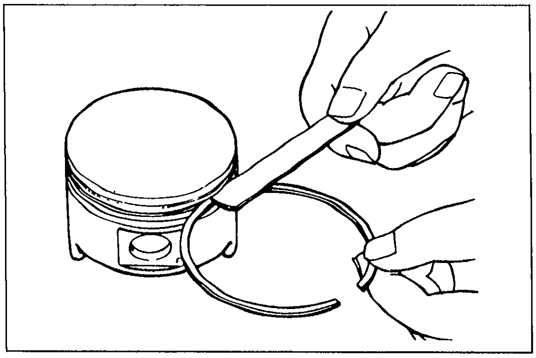
05U0BX-156

3. Measure the piston-to-cylinder clearance.

Clearance: 0.039—0.052mm (0.0015—0.0020 in)
Maximum: 0.15mm (0.006 in)

4. If the clearance exceeds the maximum, replace the piston or rebore the cylinders to fit oversize pistons.

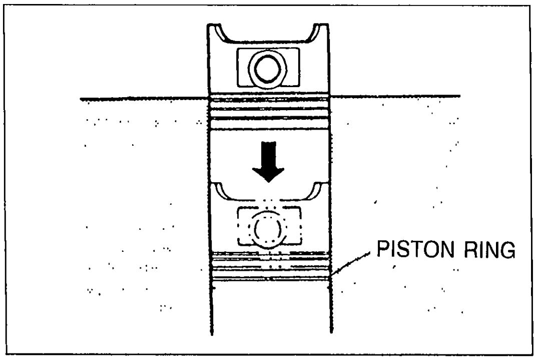
Piston and Piston Rings



05U0BX-157

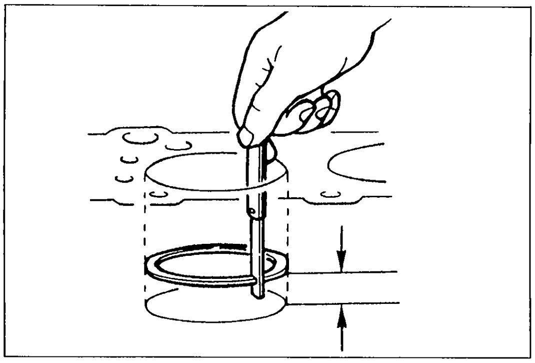
1. Measure the piston ring to ring land clearance around the entire circumference using a new piston ring.

Clearance (Top and Second):
0.03—0.07mm (0.0012—0.0028 in)
Maximum: 0.15mm (0.006 in)



05U0BX-287

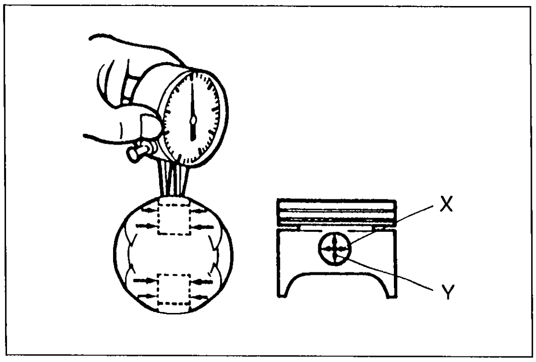
2. If the clearance exceeds the maximum, replace the piston.
3. Inspect the piston rings for damage, abnormal wear, or breakage. Replace the piston rings if necessary.
4. Insert the piston ring into the cylinder by hand and use the piston to push it to the bottom of the ring travel.



05U0BX-158

5. Measure each piston ring end gap with a feeler gauge. Replace the piston ring if necessary.

End gap
Top : 0.15—0.30mm (0.006—0.012 in)
Second: 0.15—0.30mm (0.006—0.012 in)
Oil rail : 0.20—0.70mm (0.008—0.028 in)
Maximum: 1.0mm (0.039 in)

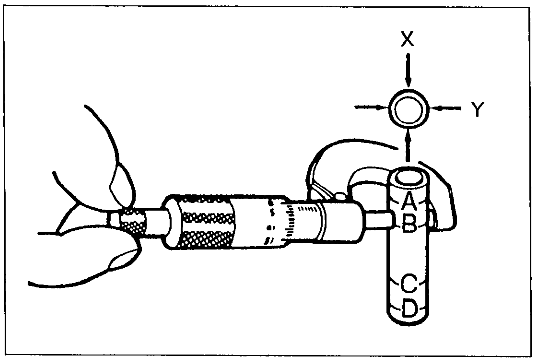


05U0BX-159

Piston and Piston Pin

1. Measure each piston pin hole diameter in X and Y directions at four points.

Diameter: 19.988—20.000mm (0.7869—0.7874 in)



05U0BX-160

2. Measure each piston pin diameter in X and Y directions at four points.

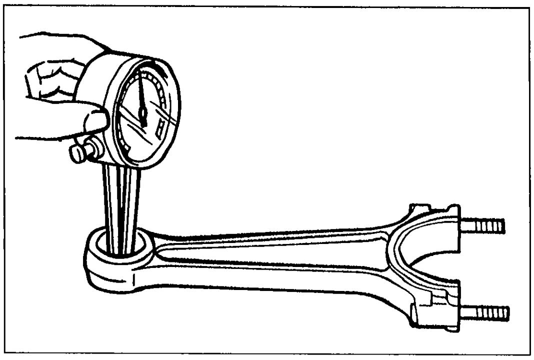
Diameter: 19.987—19.993mm (0.7869—0.7871 in)

3. Calculate the piston pin-to-piston clearance.

Clearance: -0.005—0.013mm (-0.0002—0.0005 in)

4. If the clearance exceeds specification, replace the piston and/or piston pin.

CONNECTING ROD



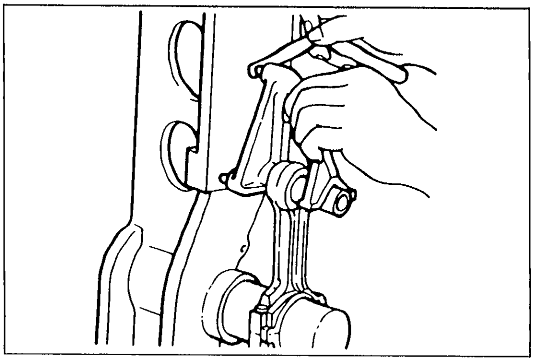
05U0BX-161

1. Measure each connecting rod bushing inner diameter.

Diameter: 20.003—20.014mm (0.7875—0.7880 in)

2. Calculate the clearance between the connecting rod bushing and piston pin.

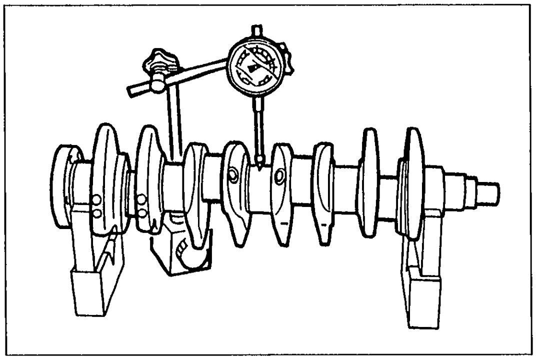
Clearance: 0.010—0.027mm (0.0004—0.0011 in)



05U0BX-162

3. Measure each connecting rod for bending. Repair or replace the connecting rod if necessary.

Bending: 0.075mm (0.0030 in) max./50mm (1.97 in)

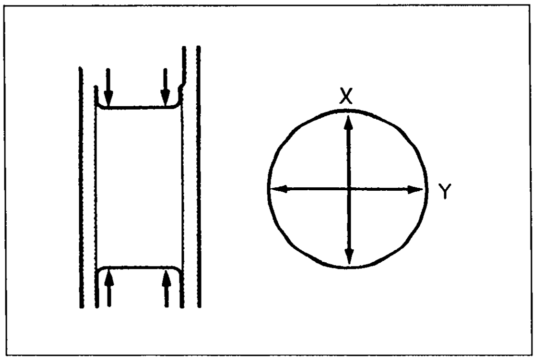


05U0BX-163

CRANKSHAFT

1. Check the journals and pins for damage, scoring, and oil hole clogging.
2. Set the crankshaft on V-blocks.
3. Measure the crankshaft runout at the center journal. Replace the crankshaft if necessary.

Runout: 0.04mm (0.0016 in) max.



05U0BX-164

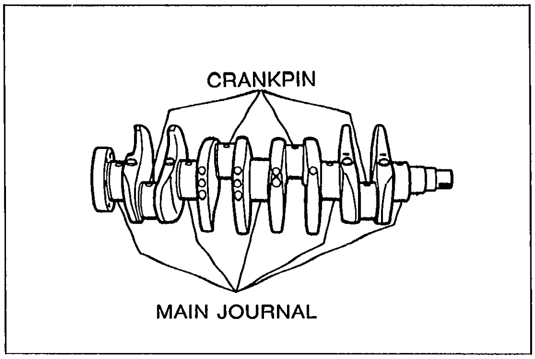
4. Measure each journal diameter in X and Y directions at two points.

Main journal
Diameter: 49.938—49.956mm (1.9661—1.9668 in)
Out-of-round: 0.05mm (0.0020 in) max.

Crankpin journal
Diameter: 44.940—44.956mm (1.7693—1.7699 in)
Out-of-round: 0.05mm (0.0020 in) max.

Caution

- **Do not remove the fillet roll area R when grinding.**



05U0BX-165

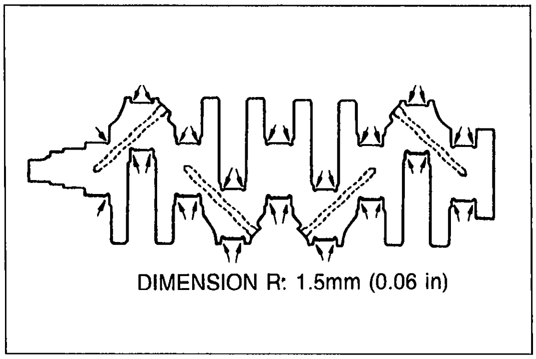
5. If the diameter is less than the minimum, grind the journals to match an undersize bearing.

Undersize bearing:
0.25mm (0.010 in), 0.50mm (0.020 in),
0.75mm (0.030 in)

Main journal diameter undersize

mm (in)

Bearing size	Journal diameter
0.25 (0.010) undersize	49.704—49.708 (1.9568—1.9570)
0.50 (0.020) undersize	49.454—49.458 (1.9470—1.9472)
0.75 (0.030) undersize	49.204—49.208 (1.9372—1.9373)

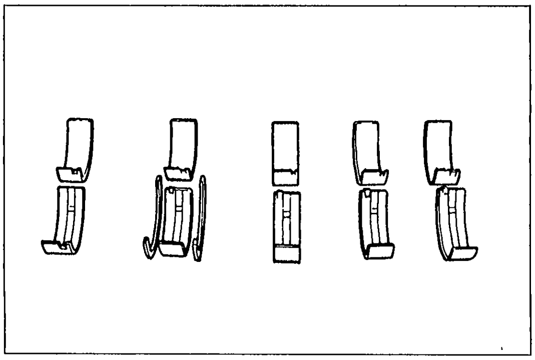


05U0BX-166

Crankpin journal diameter undersize

mm (in)

Bearing size	Journal diameter
0.25 (0.010) undersize	44.690—44.706 (1.7594—1.7601)
0.50 (0.020) undersize	44.440—44.456 (1.7496—1.7502)
0.75 (0.030) undersize	44.190—44.206 (1.7398—1.7404)

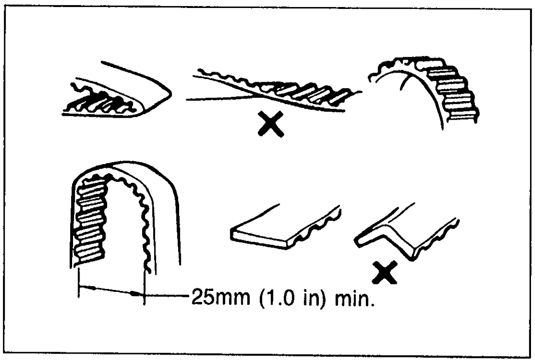


05U0BX-167

BEARING

Main Bearing and Connecting Rod Bearing

1. Check the main bearings and the connecting rod bearings for peeling, scoring, and other damage.

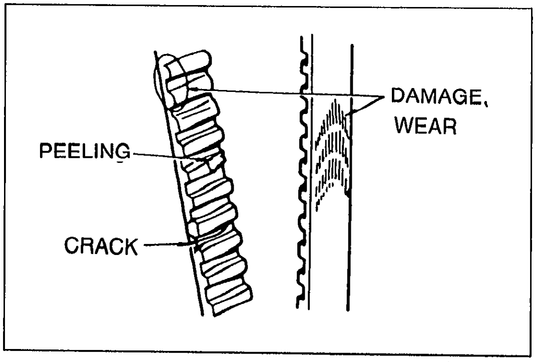


05U0BX-168

TIMING BELT

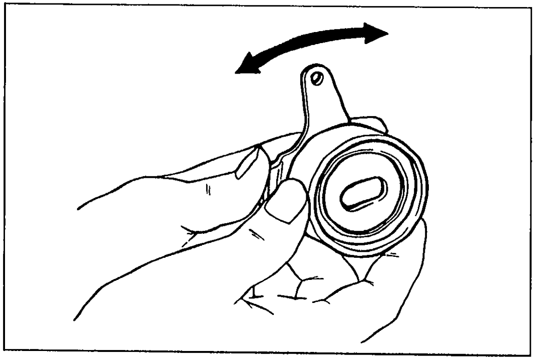
Caution

- **Never forcefully twist, turn inside out, or bend the timing belt.**
- **Do not allow oil or grease on the belt.**



05U0BX-169

1. Replace the timing belt if there is any oil or grease on it.
2. Check the timing belt for damage, wear, peeling, cracks, and hardening. Replace the timing belt if necessary.



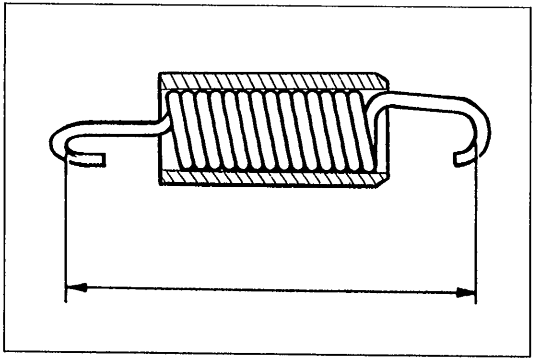
05U0BX-170

TENSIONER, IDLER

Caution

- **Do not clean the tensioner or idler with cleaning fluids. If necessary, use a soft rag to wipe them clean, and avoid scratching them.**

1. Check the tensioner and idler for smooth rotation and abnormal noise. Replace the tensioner or idler if necessary.

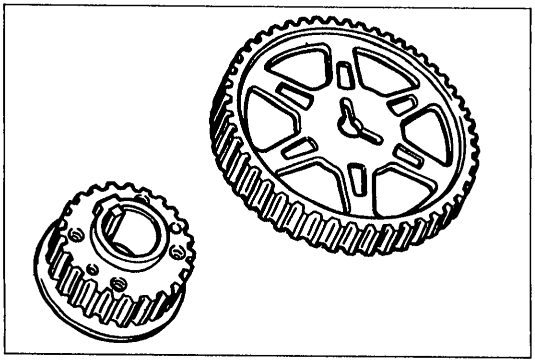


05U0BX-171

TENSIONER SPRING

1. Measure the free length of the tensioner spring. Replace the tensioner spring if necessary.

Free length: 58.8mm (2.315 in)



05U0BX-172

PULLEY

Timing Belt Pulley, Camshaft Pulley

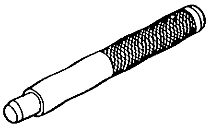
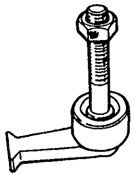
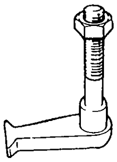
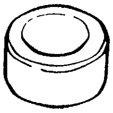
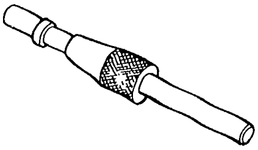
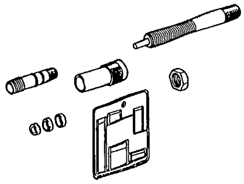
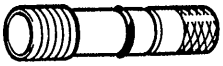
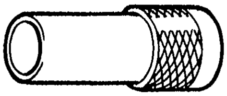
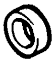
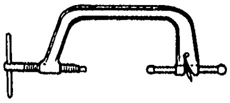
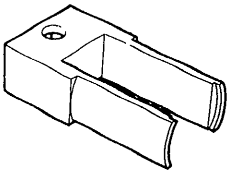
Caution

- **Do not clean the pulleys with cleaning fluids. If necessary, use a soft rag to wipe them clean, and avoid scratching them.**

1. Inspect the pulley teeth for wear, deformation, and other damage. Replace the pulley if necessary.

ASSEMBLY

PREPARATION
SST

49 0221 061A Remover & installer, piston pin 	For removal and installation of piston pin	49 E301 060 Brake, ring gear 	For prevention of engine rotation
49 E301 061 Body (Part of 49 E301 060) 	For prevention of engine rotation	49 E301 062 Collar (Part of 49 E301 060) 	For prevention of engine rotation
49 SE01 310 Centering tool, clutch disc 	For installation of clutch disc	49 L012 0A0 Installer set, valve seal & valve guide 	For installation of valve seal
49 L012 001 Installer (Part of 49 L012 0A0) 	For installation of valve seal	49 L012 002 Body (Part of 49 L012 0A0) 	For installation of valve seal
49 L012 005 Spacer (Part of 49 L012 0A0) 	For installation of valve seal	49 0636 100A Arm, valve spring lifter 	For removal and installation of valve
49 B012 006 Pivot, valve spring lifter 	For removal and installation of valve		

05U0BX-173

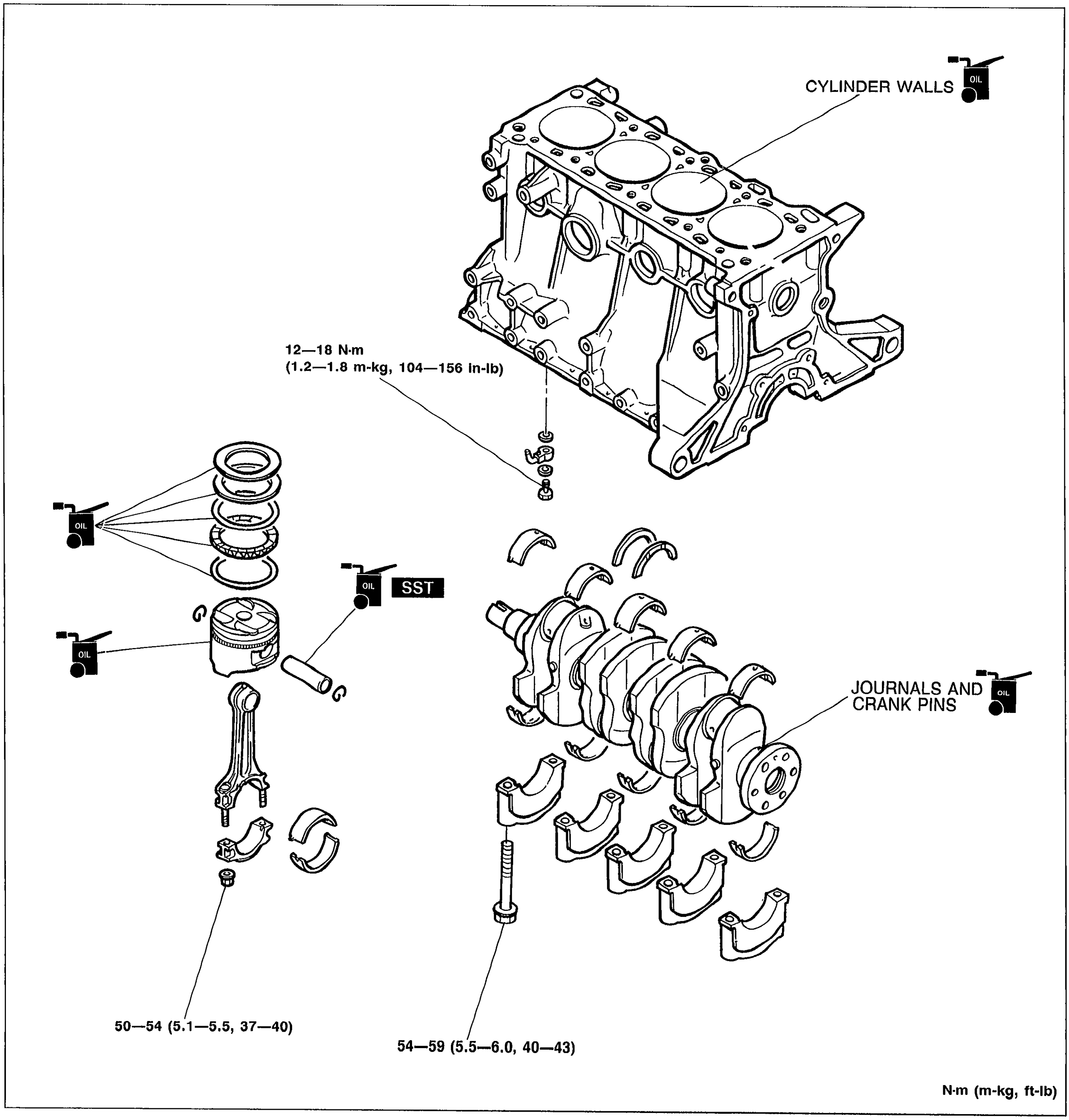
1. Clean all parts before reinstallation.
2. Apply new engine oil to all sliding and rotating parts.
3. Replace plain bearings if they are peeling, burned, or otherwise damaged.
4. Tighten all bolts and nuts to the specified torques.

Caution
- **Do not reuse gaskets or oil seals.**

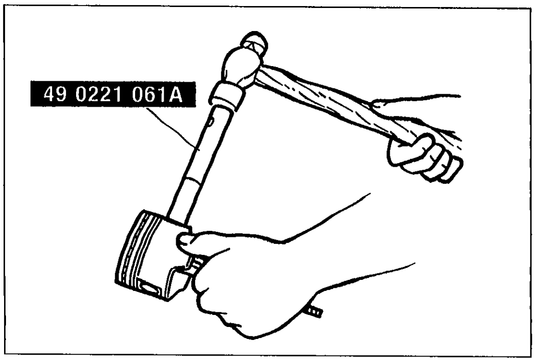
05U0BX-174

CYLINDER BLOCK (INTERNAL PARTS)

Torque Specifications


CYLINDER WALLS
OIL
12—18 N·m
(1.2—1.8 m-kg, 104—156 in-lb)
OIL
OIL
SST
OIL
JOURNALS AND
CRANK PINS
OIL
50—54 (5.1—5.5, 37—40)
54—59 (5.5—6.0, 40—43)
N·m (m-kg, ft-lb)

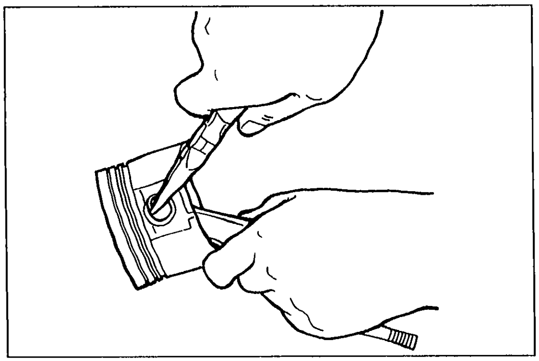
05U0BX-175


49 0221 061A

05U0BX-176

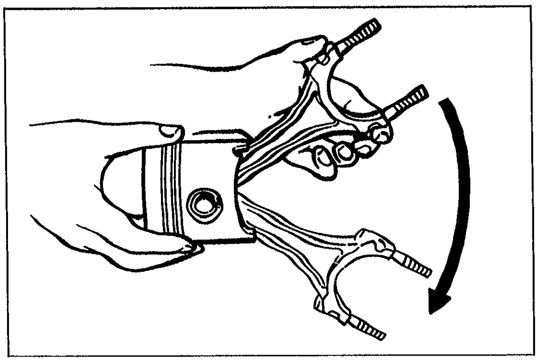
Connecting Rod

1. Install one piston pin clip into the clip groove in the piston.
2. Assemble the piston and the connecting rod in the direction from which they were disassembled.
3. Apply clean engine oil to the piston pin.
4. Install the piston pin from the side opposite the clip.
5. Tap the piston pin in with the **SST** until the pin contacts the clip.
   If the pin cannot be installed easily, replace the connecting rod.



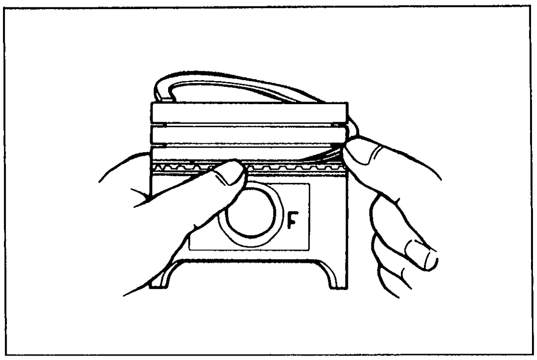
05U0BX-177

6. Install the second clip into the clip groove in the piston.



05U0BX-178

7. Check the oscillation torque of the connecting rod. If the large end does not drop by its own weight, replace the piston and/or piston pin.



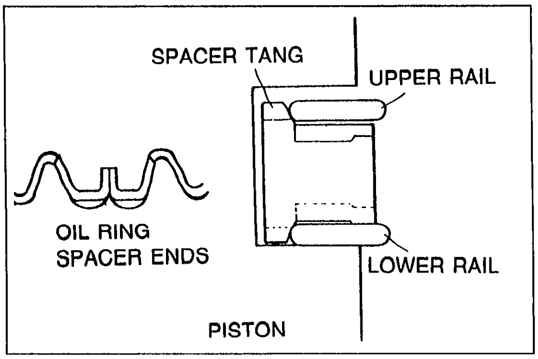
05U0BX-179

Piston Ring

1. Install the three-piece oil rings on the pistons.
   (1) Apply clean engine oil to the oil ring spacer and rails.
   (2) Install the oil ring spacer with the ends upward.

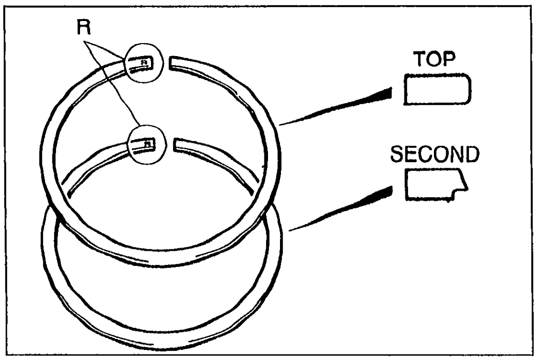
Note
- **The upper rail and lower rail are the same.**
- **The rails may be installed with either face upward.**

   (3) Install the upper rail and lower rail.



05U0BX-180

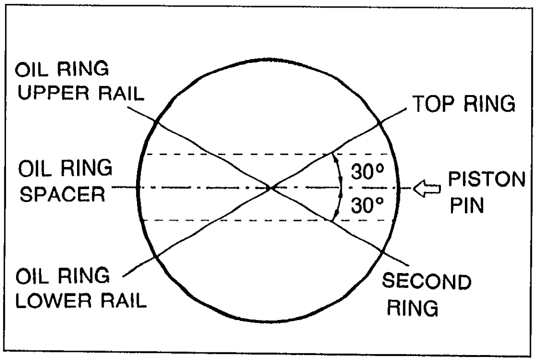
2. Verify that both rails are expanded by the spacer tangs as shown in the figure by making certain the rails turn smoothly in both directions.



05U0BX-181

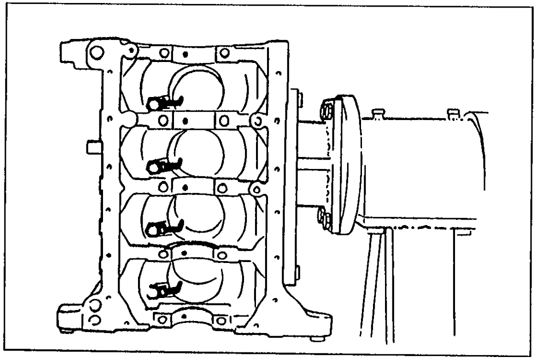
Caution
- **The rings must be installed with the R marks upward.**
- **The second ring must be installed with the scraper face downward.**

3. Apply clean engine oil to the top and second piston rings.
4. Install the second ring to the piston; then install the top ring. Use a piston ring expander (commercially available).


OIL RING UPPER RAIL
TOP RING
OIL RING SPACER
30°
30°
PISTON PIN
OIL RING LOWER RAIL
SECOND RING

05U0BX-182

5. Position the end gaps of the rings as shown in the figure.

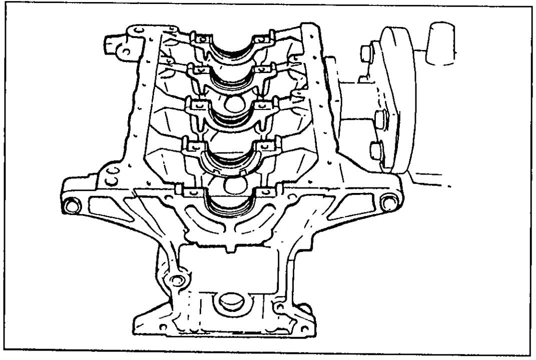


05U0BX-183

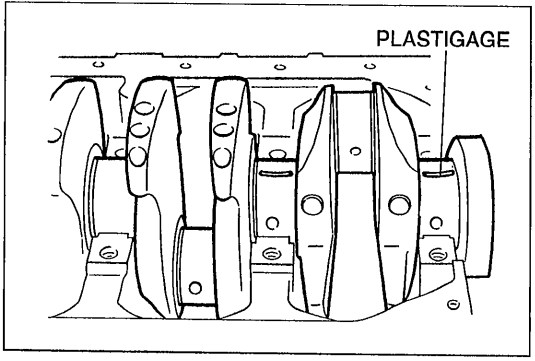
Oil Jet

1. Install the oil jets.

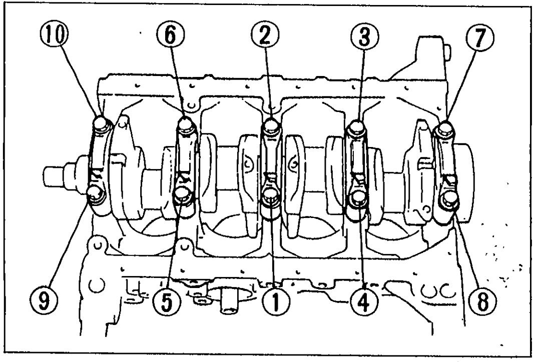
Tightening torque:
12—18 N·m (1.2—1.8 m-kg, 104—156 in-lb)



05U0BX-184


PLASTIGAGE

05U0BX-185


⑩
⑥
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05U0BX-186

Crankshaft

1. Before installing the crankshaft, inspect the main bearing oil clearances as follows.

Oil clearance inspection

(1) Remove all foreign material and oil from the journals and bearings.

Caution

- **Install the grooved upper main bearings in the cylinder block.**
- **Install the thrust bearings with the oil groove facing the crankshaft.**

(2) Install the upper main bearings and thrust bearings.
(3) Set the crankshaft in the cylinder block.

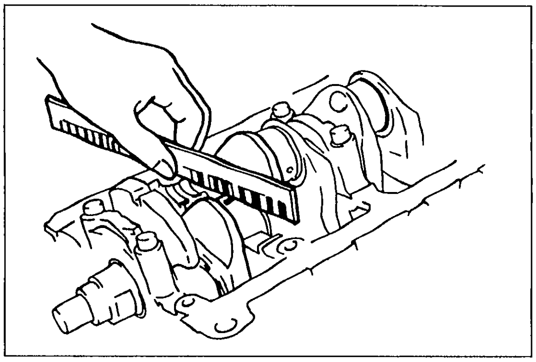
Caution

- **Do not rotate the crankshaft when measuring the oil clearances.**

(4) Position Plastigage atop the journals in the axial direction.

(5) Install the lower main bearings and the main bearing caps according to the cap number and ⇦ mark.
(6) Tighten the main bearing cap bolts in two or three steps in the order shown in the figure.

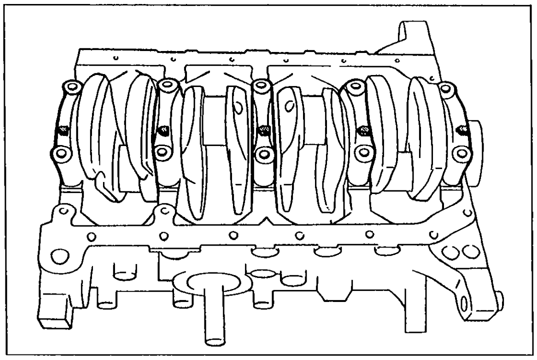
Tightening torque:
54—59 N·m (5.5—6.0 m-kg, 40—43 ft-lb)



05U0BX-187

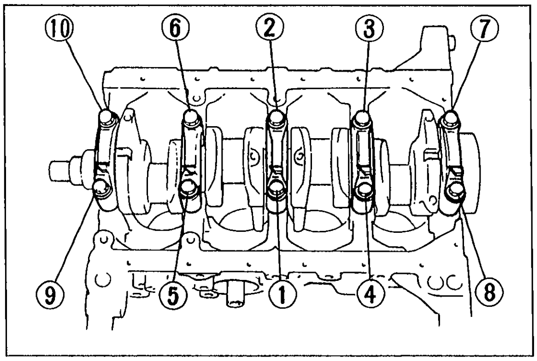
(7) Remove the main bearing caps, and measure the Plastigage at each journal at the widest point for the smallest clearance, and at the narrowest point for the largest clearance.
(8) If the oil clearance exceeds specification, grind the crankshaft and use undersize main bearings. (Refer to page B–58.)

Oil clearance: 0.018—0.036mm (0.0007—0.0014 in)
Maximum: 0.10mm (0.004 in)



05U0BX-188

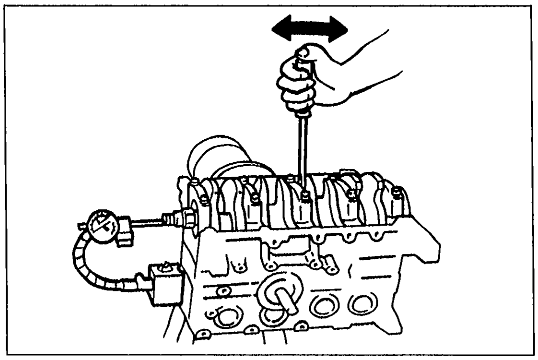
2. Apply a liberal amount of clean engine oil to the main bearings, thrust bearings and main journals.
3. Install the crankshaft and the main bearing caps according to the cap number and ⇦ mark.



05U0BX-189

4. Tighten the main bearing cap bolts in two or three steps in the order shown in the figure.

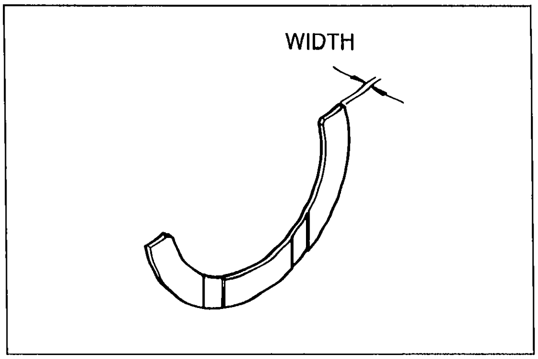
Tightening torque:
54—59 N·m (5.5—6.0 m-kg, 40—43 ft-lb)



05U0BX-190

5. Measure the crankshaft end play.

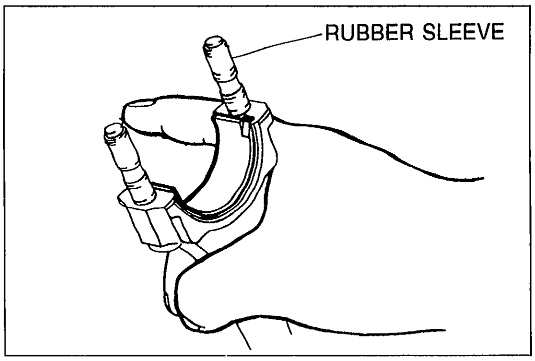
End play : 0.080—0.282mm (0.0031—0.0111 in)
Maximum: 0.30mm (0.012 in)



05U0BX-191

6. If the end play exceeds the maximum, grind the crankshaft and install an oversize thrust bearing or replace the crankshaft and thrust bearing.

Thrust bearing width
Standard:
2.500—2.550mm (0.0984—0.1004 in)
0.25mm (0.010 in) oversize:
2.625—2.675mm (0.1033—0.1053 in)
0.50mm (0.020 in) oversize:
2.750—2.800mm (0.1083—0.1102 in)
0.75mm (0.030 in) oversize:
2.875—2.925mm (0.1132—0.1152 in)

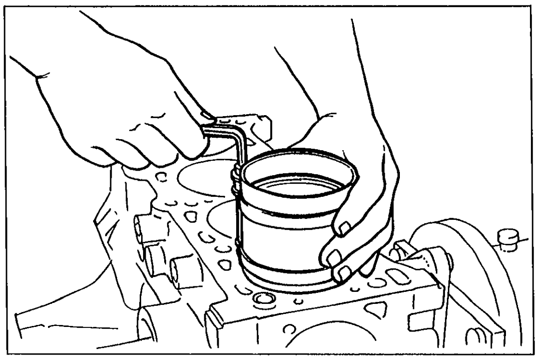


05U0BX-192

Piston and Connecting Rod Assembly

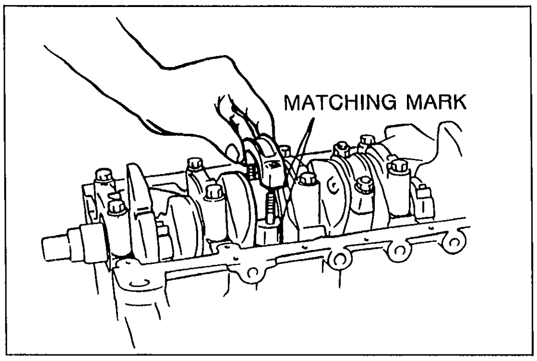
Caution

- **Protect the connecting rod bolts with rubber sleeves to prevent damage to the crankpin journals.**



05U0BX-193

1. Apply a liberal amount of clean engine oil to the cylinder walls, pistons, and piston rings.
2. Check the piston rings for correct end gap alignment.
3. Insert each piston assembly into the cylinder block with the **F** mark facing the front of the engine. Use a piston ring compressor (commercially available).



05U0BX-194

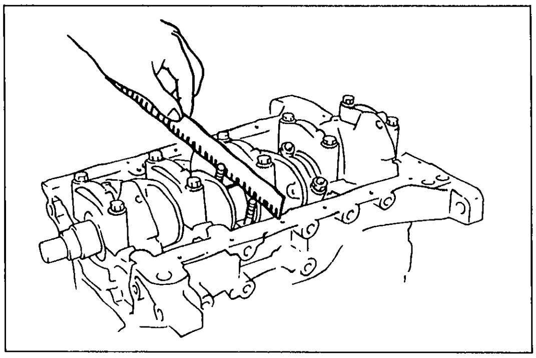
Connecting Rod Cap

1. Measure the connecting rod bearing oil clearances using the same procedure as for the main bearing oil clearance.

Caution

- **Align the matching marks on the cap and the connecting rod when installing the connecting rod cap.**

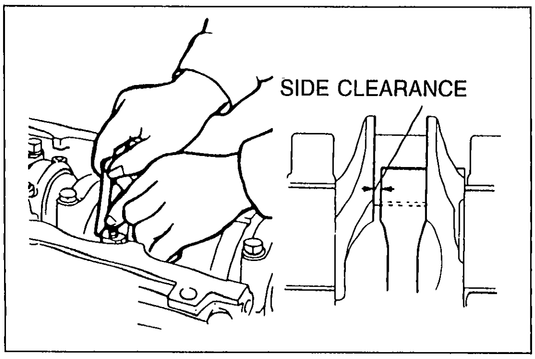
Tightening torque:
50—54 N·m (5.1—5.5 m-kg, 37—40 ft-lb)



05U0BX-195

Oil clearance: 0.028—0.068mm (0.0011—0.0027 in)
Maximum: 0.10mm (0.004 in)

2. If the oil clearance exceeds the maximum, grind the crankshaft and use undersize bearings. (Refer to page B–58.)

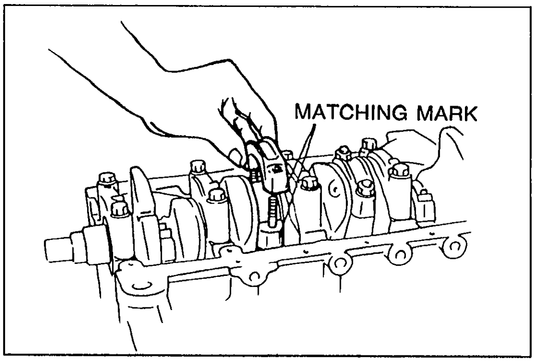


05U0BX-196

3. Measure the connecting rod side clearances.

Side clearance: 0.110—0.262mm (0.0043—0.0103 in)
Maximum: 0.30mm (0.012 in)

4. If the clearance exceeds the maximum, replace the connecting rod and cap.

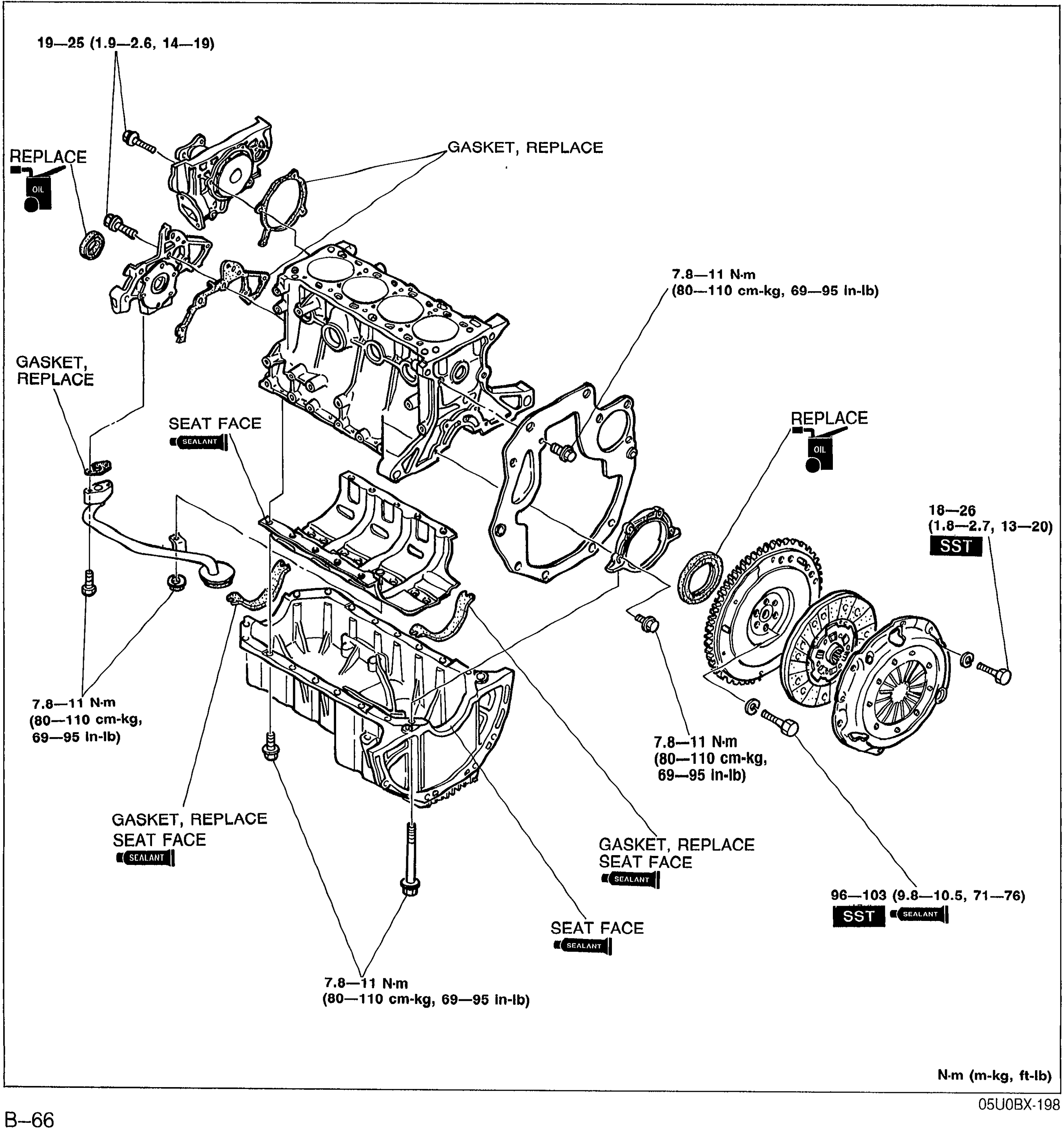

MATCHING MARK

05U0BX-197

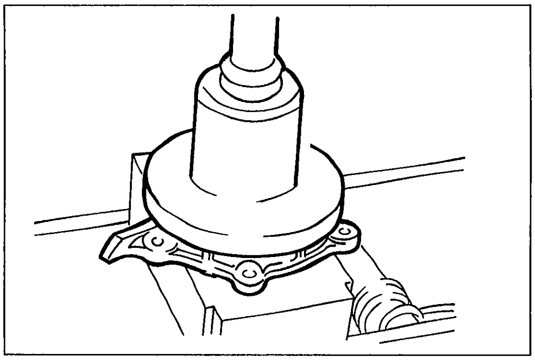
5. Apply a liberal amount of clean engine oil to the crankpin journals and connecting rod bearings.
6. Install the connecting rod caps with the matching marks aligned.
7. Tighten the connecting rod cap nuts in two or three steps.

Tightening torque:
50—54 N·m (5.1—5.5 m-kg, 37—40 ft-lb)

CYLINDER BLOCK (EXTERNAL PARTS)
Torque Specifications


19—25 (1.9—2.6, 14—19)
REPLACE
OIL
GASKET, REPLACE
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
GASKET, REPLACE
SEAT FACE
SEALANT
REPLACE
OIL
18—26
(1.8—2.7, 13—20)
SST
7.8—11 N·m
(80—110 cm-kg,
69—95 in-lb)
7.8—11 N·m
(80—110 cm-kg,
69—95 in-lb)
GASKET, REPLACE
SEAT FACE
SEALANT
GASKET, REPLACE
SEAT FACE
SEALANT
96—103 (9.8—10.5, 71—76)
SST
SEALANT
SEAT FACE
SEALANT
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
N·m (m-kg, ft-lb)

05U0BX-198



05U0BX-199

Rear Cover

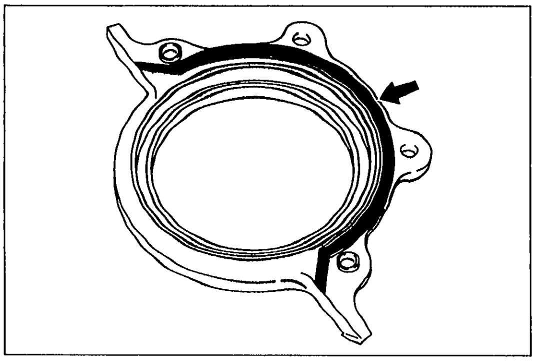
1. Apply a small amount of clean engine oil to the lip of a new oil seal.
2. Push the oil seal slightly in by hand.

Caution

- **The oil seal must be pressed in until it is flush with the edge of the rear cover.**

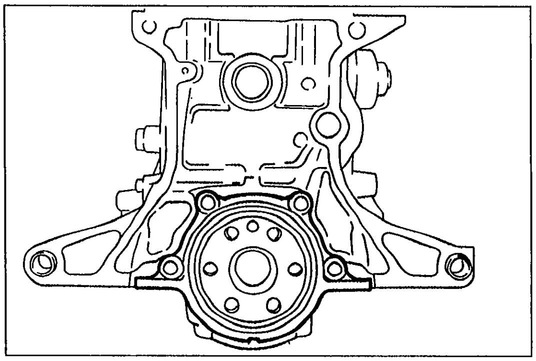
3. Press the oil seal in evenly with a suitable pipe.

Oil seal outer diameter: 100mm (3.94 in)



05U0BX-200

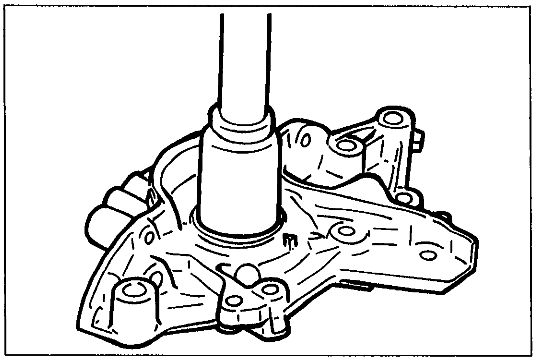
4. Apply silicone sealant to the shaded area shown in the figure.



05U0BX-201

5. Install the rear cover.

Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)



05U0BX-202

Oil Pump

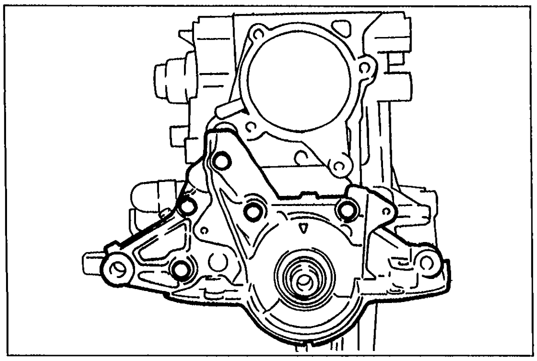
1. Apply a small amount of clean engine oil to the lip of a new oil seal.
2. Push the oil seal slightly in by hand.

Caution

- **The oil seal must be pressed in until it is flush with the edge of the oil pump body.**

3. Press the oil seal in evenly with a suitable pipe.

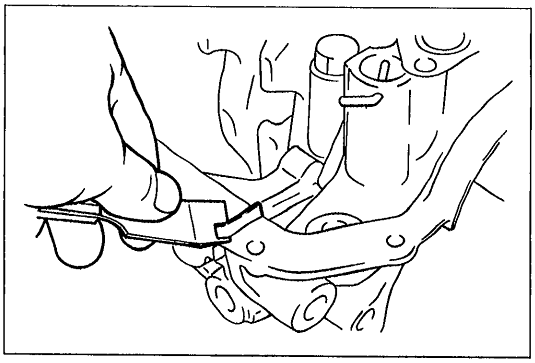
Oil seal outer diameter: 44mm (1.73 in)



05U0BX-203

4. Install the oil pump and a new gasket.

Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

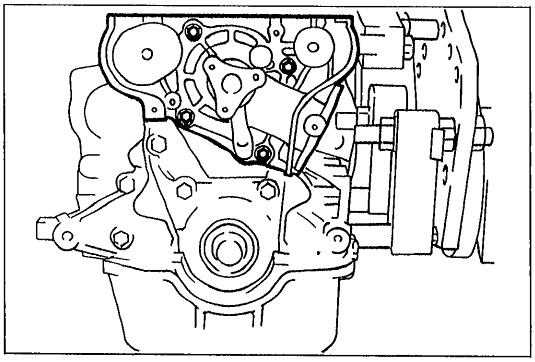


05U0BX-204

Caution

- **Do not scratch the oil pump.**

5. Cut away the portion of the gasket that projects from the body toward the oil pan side.

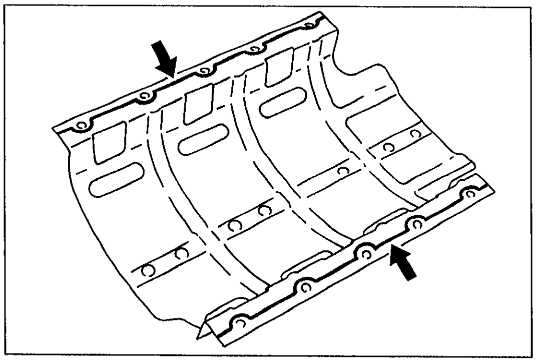


05U0BX-205

Water Pump

1. Remove all foreign material from the water pump mounting surface.
2. Install the water pump and a new gasket.

Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)



05U0BX-206

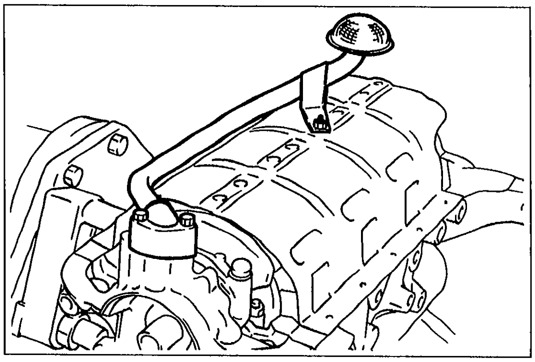
Oil Pan Baffle

1. Remove all foreign material from the contact surfaces.

Caution

- **The oil pan must be secured within 30 minutes after the sealant is applied to the baffle.**

2. Apply a continuous bead of silicone sealant to the baffle along the inside of the bolt holes.
3. Install the baffle.

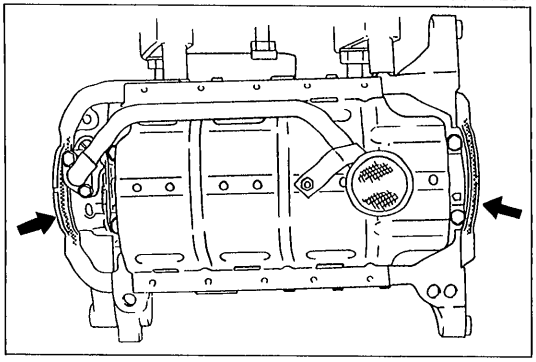


05U0BX-207

Oil Strainer

1. Install the oil strainer and a new gasket.

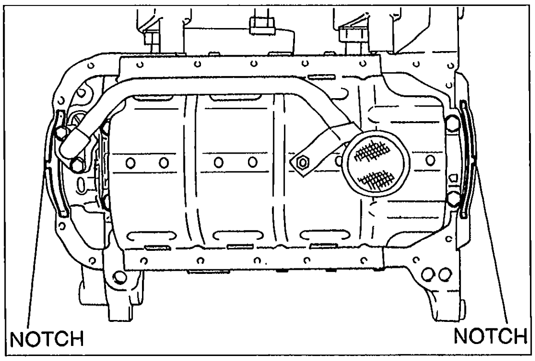
Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)



05U0BX-208

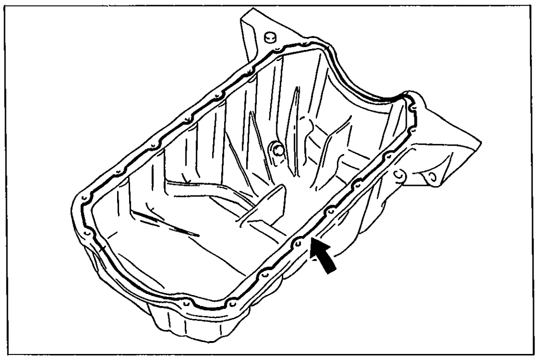
Oil Pan

1. Remove all foreign material from the contact surfaces.
2. Apply silicone sealant to the shaded areas shown in the figure.



05U0BX-209

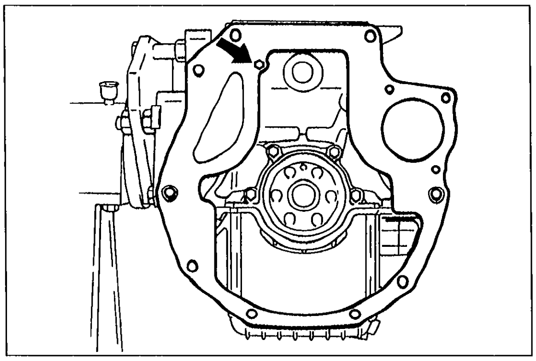
3. Install new gaskets onto the oil pump body and the rear cover with the projections in the notches shown in the figure.



05U0BX-210

4. Apply a continuous bead of silicone sealant to the oil pan along the inside of the bolt holes and overlap the ends.
5. Install the oil pan.

Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

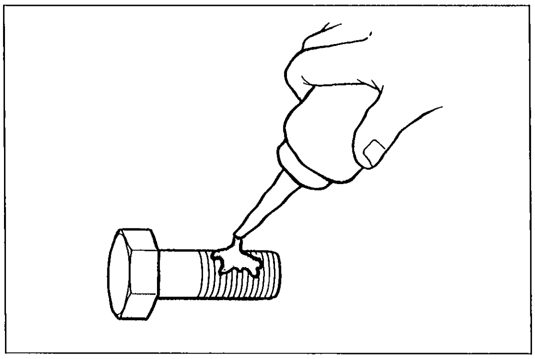


05U0BX-211

End Plate

1. Install the end plate.

Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)



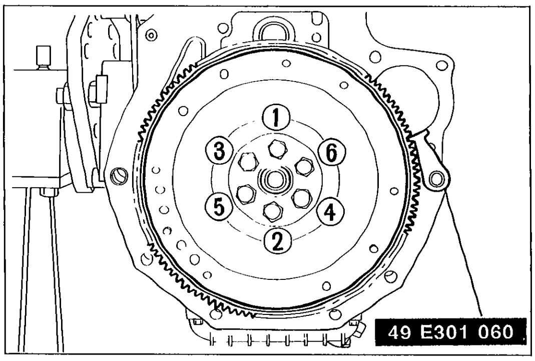
05U0BX-070

Flywheel

1. Remove the sealant from the flywheel bolt holes in the crankshaft and from the flywheel bolts.

Caution
- **If all the previous sealant cannot be removed from a bolt, replace the bolt.**
- **Do not apply sealant if a new bolt is used.**

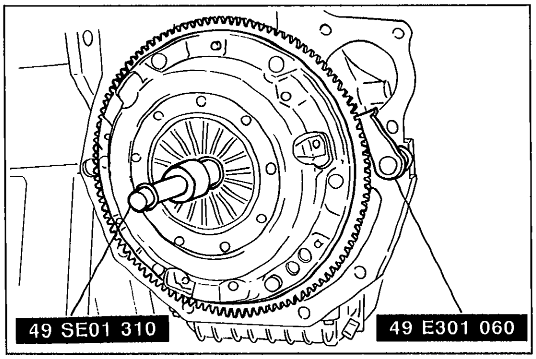
2. Set the flywheel onto the crankshaft.
3. Apply sealant to the flywheel bolts and install them.



05U0BX-071

4. Hold the flywheel with the **SST**.
5. Tighten the bolts in two or three steps in the order shown.

Tightening torque:
96—103 N·m (9.8—10.5 m-kg, 71—76 ft-lb)


49 SE01 310
49 E301 060

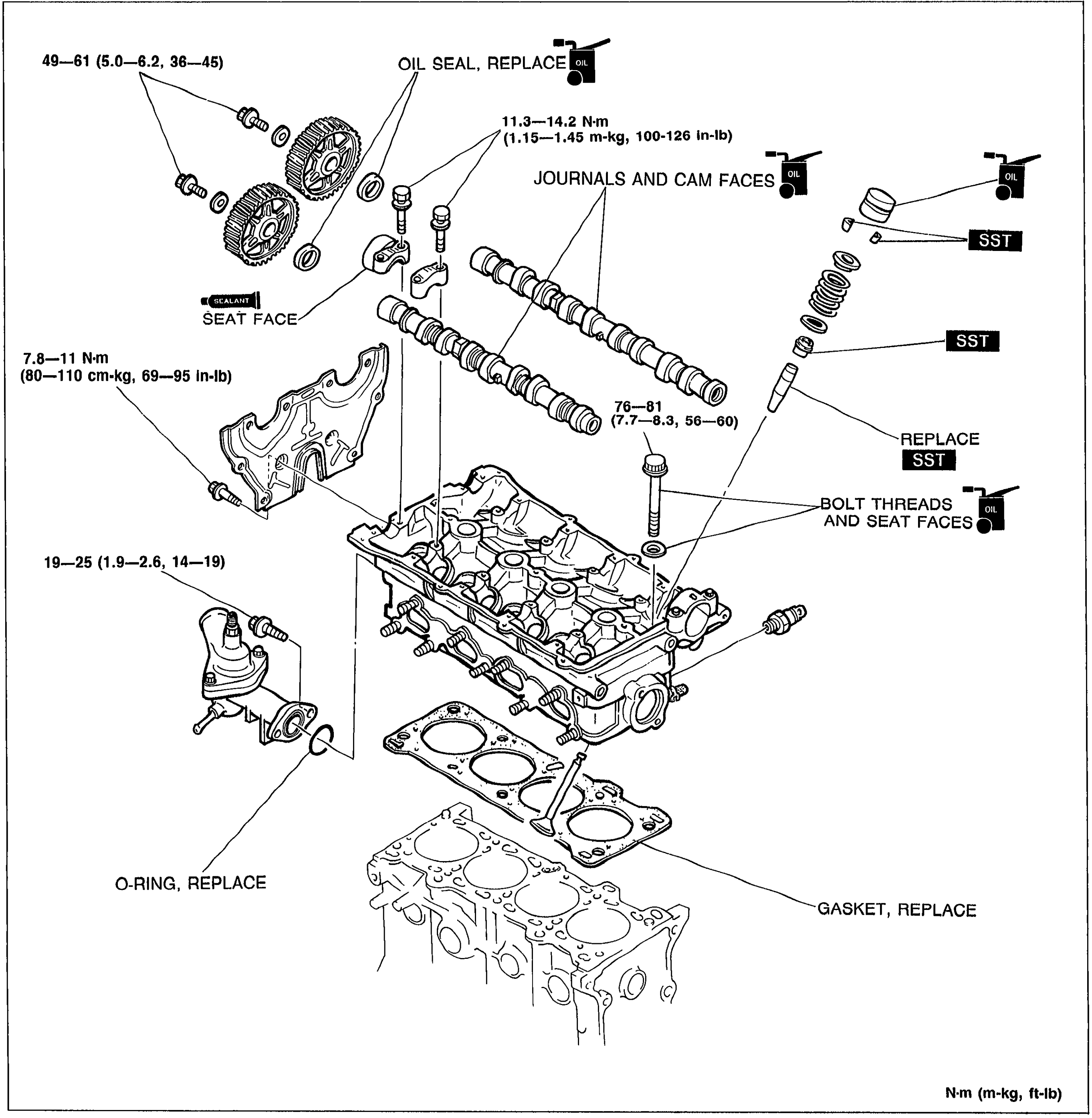
05U0BX-212

Clutch Disc and Clutch Cover

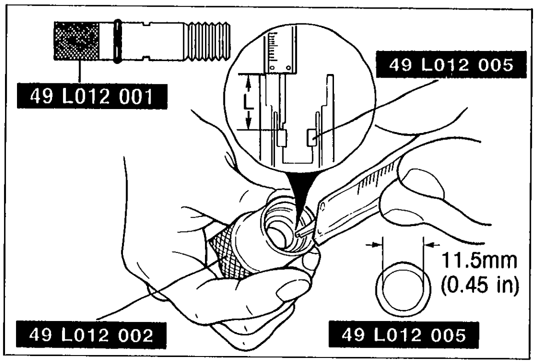
1. Install the clutch disc and clutch cover using the **SST**. (Refer to page H–14.)

Tightening torque:
18—26 N·m (1.8—2.7 m-kg, 13—20 ft-lb)

CYLINDER HEAD
Torque Specifications


49—61 (5.0—6.2, 36—45)
OIL SEAL, REPLACE
OIL
11.3—14.2 N·m
(1.15—1.45 m-kg, 100-126 in-lb)
JOURNALS AND CAM FACES
OIL
OIL
SST
SEALANT
SEAT FACE
SST
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
76—81
(7.7—8.3, 56—60)
REPLACE
SST
BOLT THREADS
AND SEAT FACES
OIL
19—25 (1.9—2.6, 14—19)
O-RING, REPLACE
GASKET, REPLACE
N·m (m-kg, ft-lb)

05U0BX-213

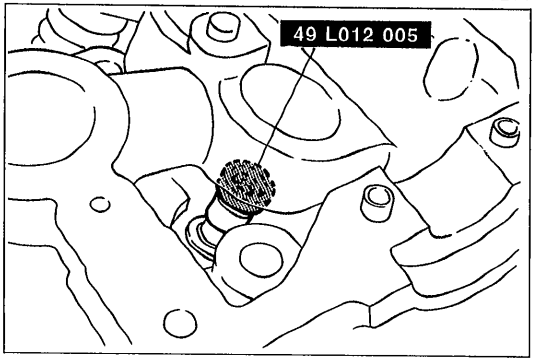

49 L012 001
49 L012 005
L
11.5mm
(0.45 in)
49 L012 002
49 L012 005

05U0BX-214

Valve Seal

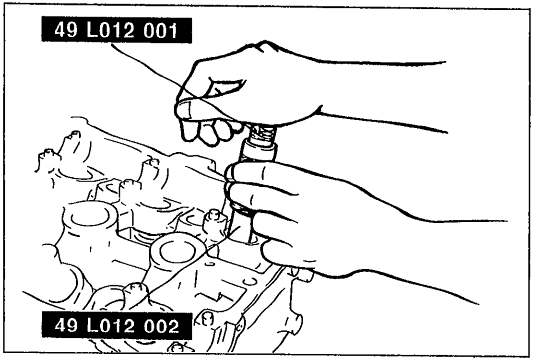
1. Assemble the **SST** so that depth **L** is as specified.

Depth L: 18.3—18.5mm (0.720—0.728 in)



05U0BX-215

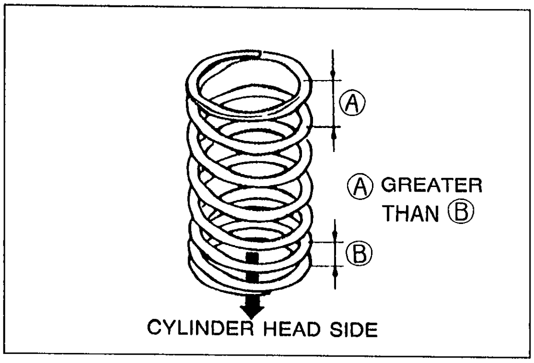
2. Slide the valve seal onto the valve guide.
3. Set the **SST** against the valve seal.


49 L012 001
49 L012 002

05U0BX-216

Caution
- **Do not use a hammer.**

4. Press the valve seal on until the **SST** contacts the cylinder head.


Ⓐ
Ⓐ GREATER THAN Ⓑ
Ⓑ
CYLINDER HEAD SIDE

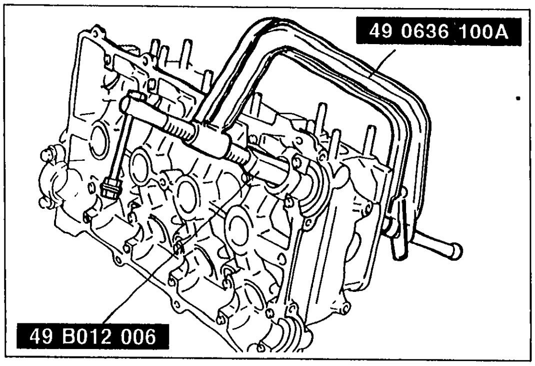
05U0BX-217

Valve and Valve Spring

1. Install the lower spring seat.
2. Install the valve.

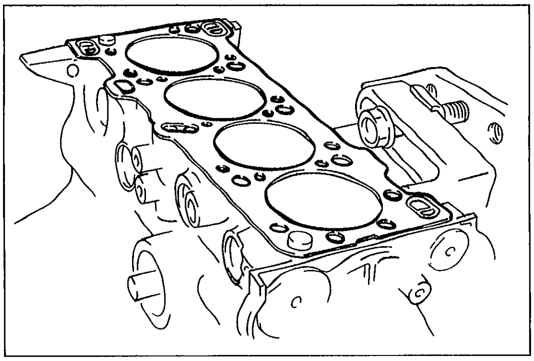
Caution
- **Install the spring with the closer pitch toward the cylinder head.**

3. Install the valve spring and the upper spring seat.


49 0636 100A
49 B012 006

05U0BX-218

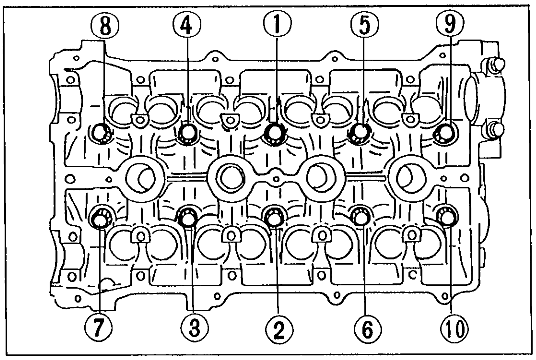
4. Compress the valve spring with the **SST**, and install the valve keepers.
5. Remove the **SST**.
6. Tap the end of the valve stem lightly two or three times with a plastic hammer to verify that the keepers are all fully seated.



05U0BX-219

Cylinder Head Gasket

1. Remove all foreign material from the top of the cylinder block.
2. Place the new cylinder head gasket in position.

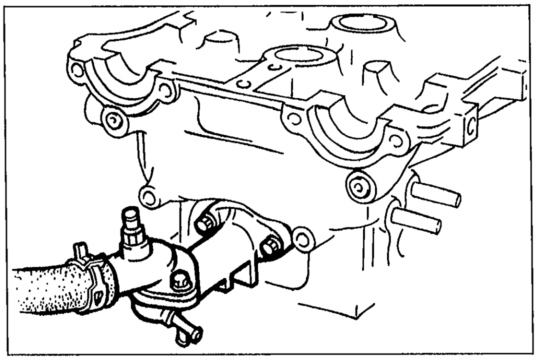


05U0BX-220

Cylinder Head

1. Install the cylinder head.
2. Apply clean engine oil to the bolt threads and seat faces.
3. Tighten the cylinder head bolts in two or three steps in the order shown.

Tightening torque:
76—81 N·m (7.7—8.3 m-kg, 56—60 ft-lb)

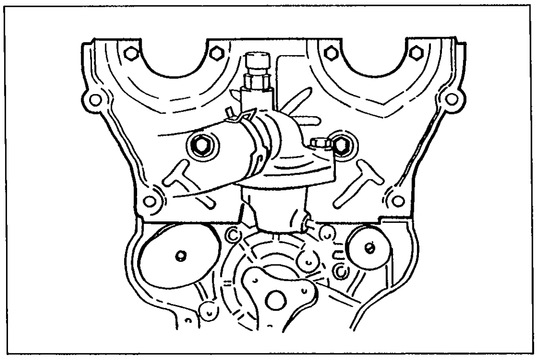


05U0BX-221

Thermostat Housing

1. Remove all foreign material from the thermostat housing mounting surface.
2. Install a new O-ring and the thermostat housing.

Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

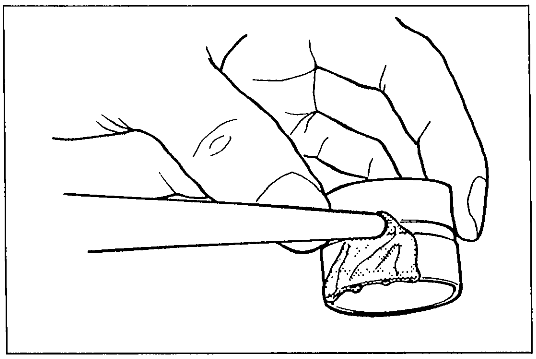


05U0BX-222

Seal Plate

1. Install the seal plate on the cylinder head.

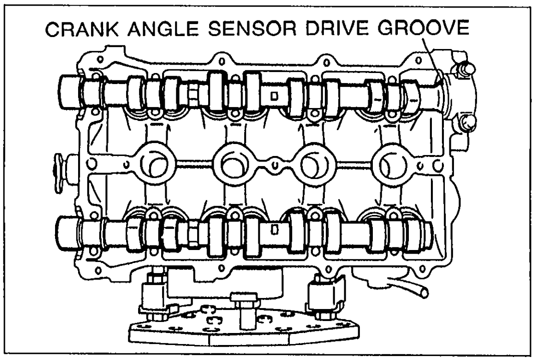
Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)



05U0BX-223

HLA

1. Apply clean engine oil to the friction surfaces.
2. If the HLA are being reused, install them in the position from which they were removed.
3. Verify that the HLA move smoothly in their bores.



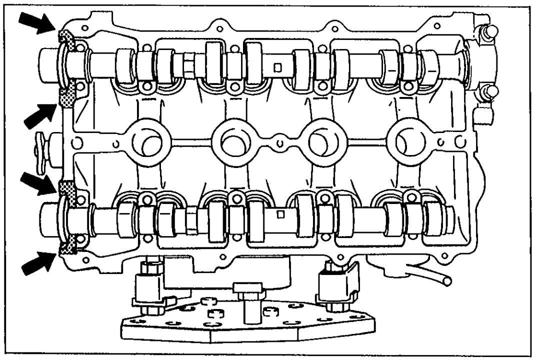
05U0BX-224

Camshaft

Note
- **The intake camshaft is grooved for the crank angle sensor drive.**

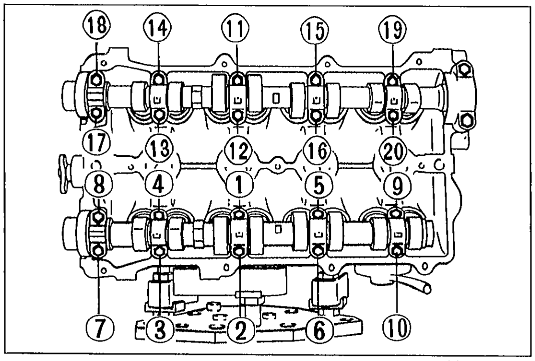
1. Apply clean engine oil to the camshaft journals and bearings.
2. Install the camshaft in position.

Caution
- **Do not allow any sealant on the camshaft journal surfaces.**



05U0BX-054

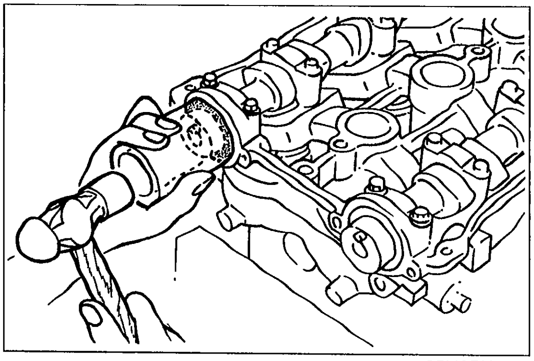
3. Apply silicone sealant to the shaded areas shown in the figure.
4. Install the camshaft caps according to the cap number and arrow mark.



05U0BX-055

5. Install the camshaft cap bolts, and tighten them in two or three steps in the order shown.

Tightening torque:
11.3—14.2 N·m (1.15—1.45 m-kg, 100—126 in-lb)



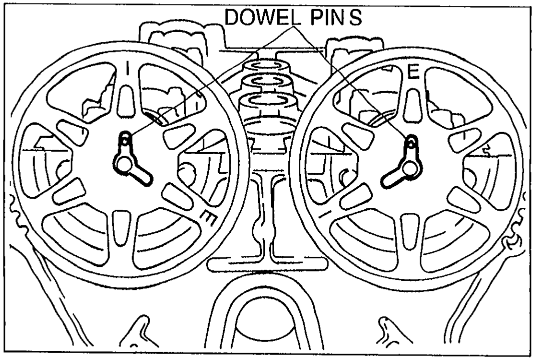
05U0BX-056

6. Apply a small amount of clean engine oil to the lip of a new camshaft oil seal.
7. Push the oil seal slightly in by hand.

Caution
- **The oil seal must be tapped in until it is flush with the edge of the camshaft cap.**

8. Tap the oil seal in evenly with a suitable pipe and a hammer.

Oil seal outer diameter: 48mm (1.89 in)

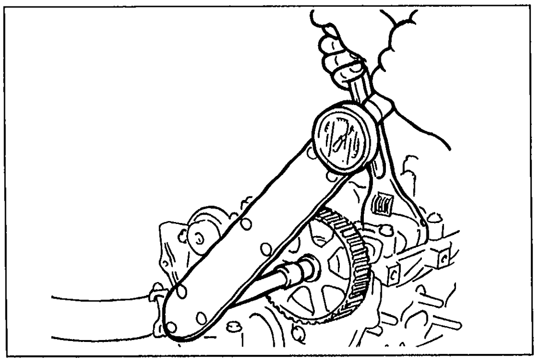


05U0BX-225

Camshaft Pulley

1. Turn the camshafts until the camshaft dowel pins face straight up.
2. Install the camshaft pulleys with the I mark (intake side) or the E mark (exhaust side) straight up.

ASSEMBLY



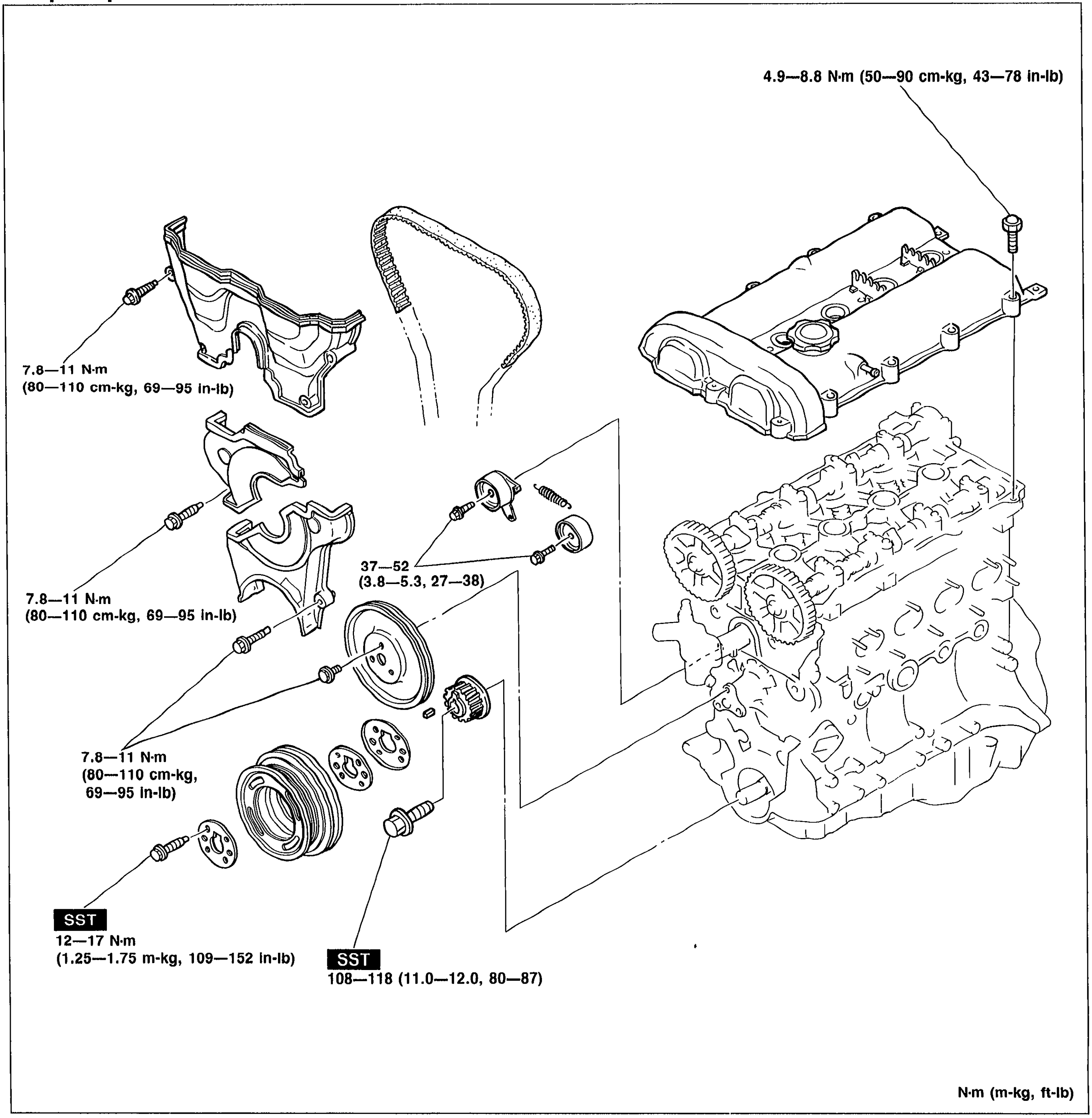
05U0BX-058

3. Install the camshaft pulley lock bolts.
4. Hold the camshaft with a wrench.
5. Tighten the camshaft pulley lock bolt.

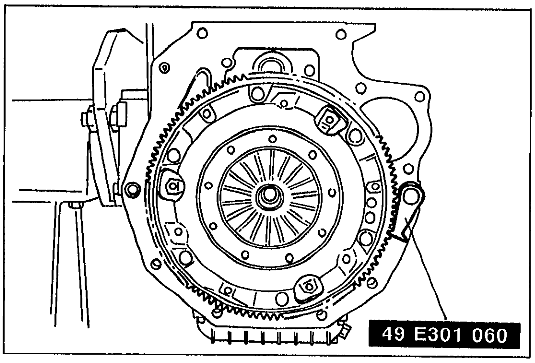
Tightening torque:
49—61 N·m (5.0—6.2 m-kg, 36—45 ft-lb)

TIMING BELT

Torque Specifications


4.9—8.8 N·m (50—90 cm-kg, 43—78 in-lb)
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
37—52
(3.8—5.3, 27—38)
7.8—11 N·m
(80—110 cm-kg,
69—95 in-lb)
SST
12—17 N·m
(1.25—1.75 m-kg, 109—152 in-lb)
SST
108—118 (11.0—12.0, 80—87)
N·m (m-kg, ft-lb)

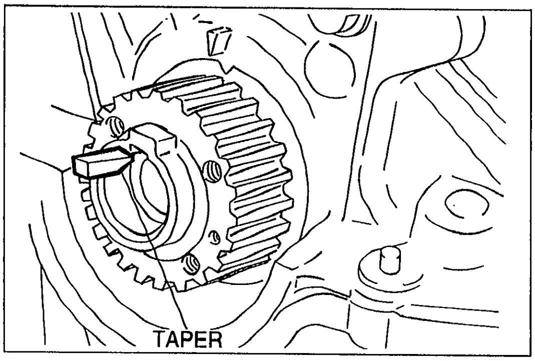
05U0BX-226



05U0BX-227

Timing Belt Pulley

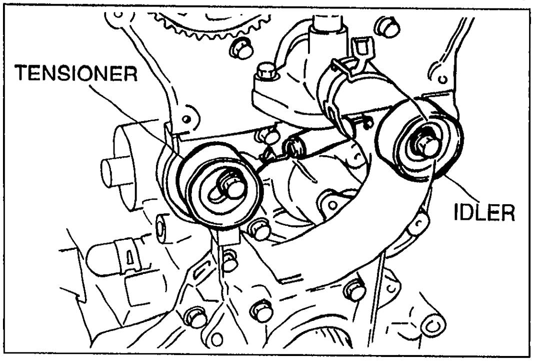
1. Reverse the direction of the **SST** on the flywheel.



05U0BX-228

2. Install the timing belt pulley.
3. Install the pulley Woodruff key with the tapered side toward the oil pump body.
4. Install the pulley lock bolt.
5. Tighten the pulley lock bolt.

Tightening torque:
108—118 N·m (11.0—12.0 m-kg, 80—87 ft-lb)



05U0BX-229

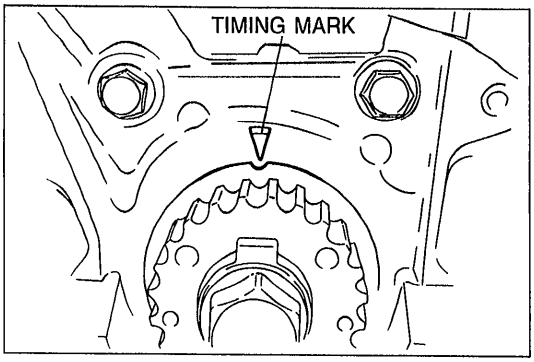
Idler

1. Install the idler.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

Tensioner and Tensioner Spring

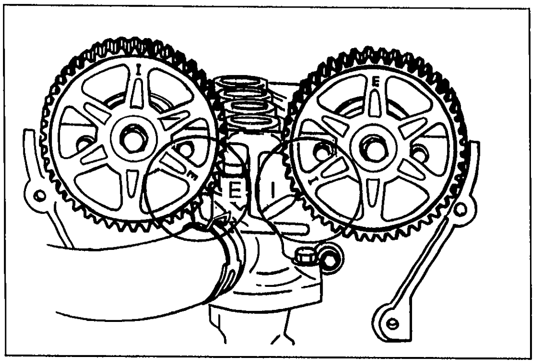
1. Install the tensioner and the tensioner spring.
2. Temporarily secure the tensioner with the spring fully extended.



05U0BX-230

Timing Belt

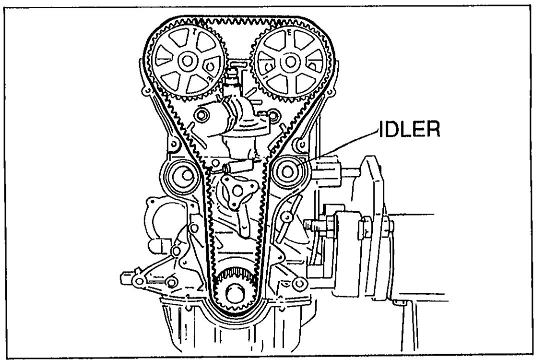
1. Turn the crankshaft and align the timing belt pulley mark with the timing mark.



05U0BX-029

2. Verify that the camshaft pulley marks are aligned with the seal plate marks.

Caution
- **For intake side, align the E mark.**
- **For exhaust side, align the I mark.**

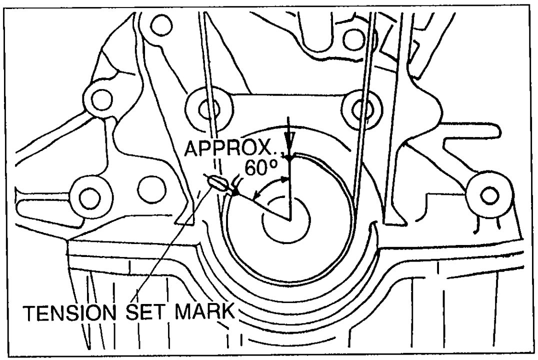


05U0BX-030

3. Install the timing belt so that there is no looseness at the idler side or between the two camshaft pulleys.

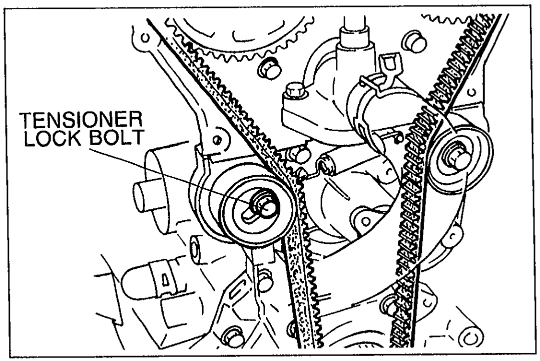
Caution
- **Do not turn the crankshaft counterclockwise.**

4. Turn the crankshaft two turns clockwise, and align the timing belt pulley mark with the timing mark.
5. Verify that the camshaft pulley marks are aligned with the seal plate marks.
If not aligned, remove the timing belt and repeat from tensioner installation.



05U0BX-031

6. Turn the crankshaft 1 and 5/6 turn clockwise, and align the timing belt pulley mark with the tension set mark.

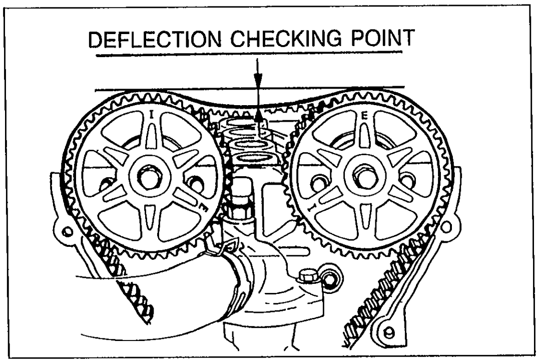


05U0BX-032

7. Loosen the tensioner lock bolt to apply tension to the timing belt.
8. Tighten the tensioner lock bolt.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

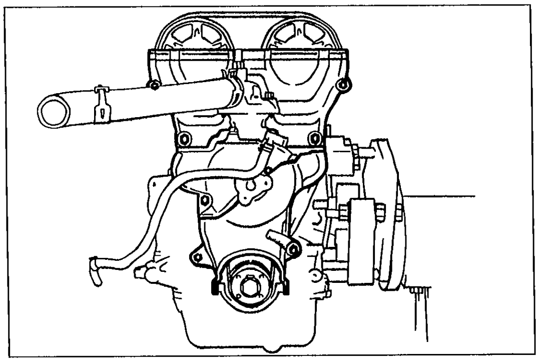
9. Turn the crankshaft 2 and 1/6 turns clockwise and verify that the timing marks are correctly aligned.



05U0BX-033

10. Measure the timing belt deflection by applying moderate pressure **(98 N, 10 kg, 22 lb)** midway between the two camshaft pulleys.
If the deflection is not correct, repeat from Step 7 above.

Deflection:
9.0—11.5mm (0.35—0.45 in) at 98 N (10 kg, 22 lb)

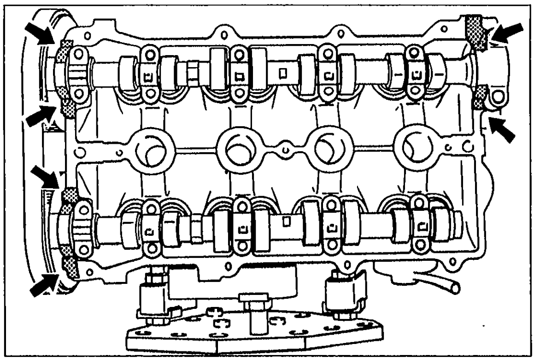


05U0BX-231

Timing Belt Cover

1. Install the lower, middle, and upper covers.

Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

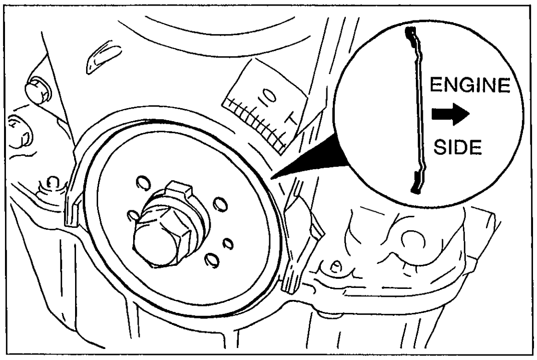


05U0BX-232

Cylinder Head Cover

1. Apply silicone sealant to the shaded areas shown in the figure.
2. Install the cylinder head cover.

Tightening torque:
4.9—8.8 N·m (50—90 cm-kg, 43—78 in-lb)



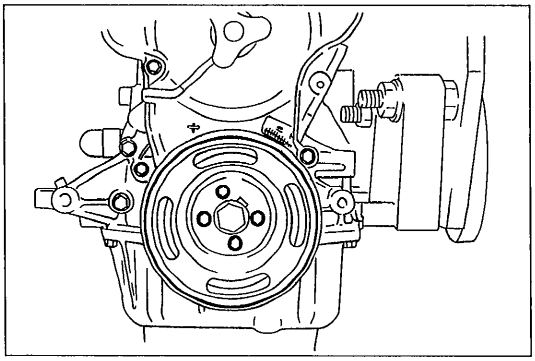
05U0BX-233

Crankshaft Pulley

Caution

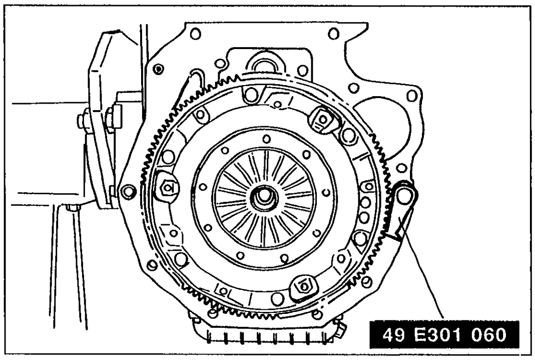
- **Make sure the timing belt inner guide plate is installed in the proper direction.**

1. Install the timing belt inner guide plate.



05U0BX-234

2. Install the timing belt outer guide plate.
3. Install the crankshaft pulley.
4. Install the plate.

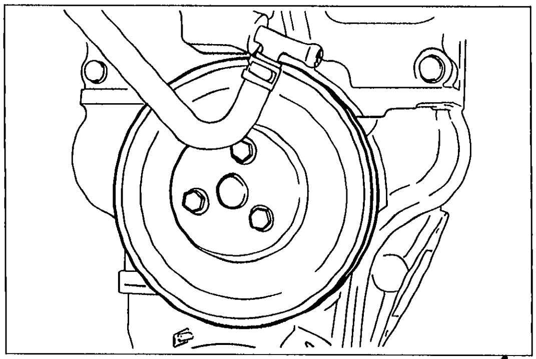


05U0BX-235

5. Tighten the lock bolts with the **SST**.

Tightening torque:
12—17 N·m (1.25—1.75 m-kg, 109—152 in-lb)

6. Remove the **SST**.



05U0BX-236

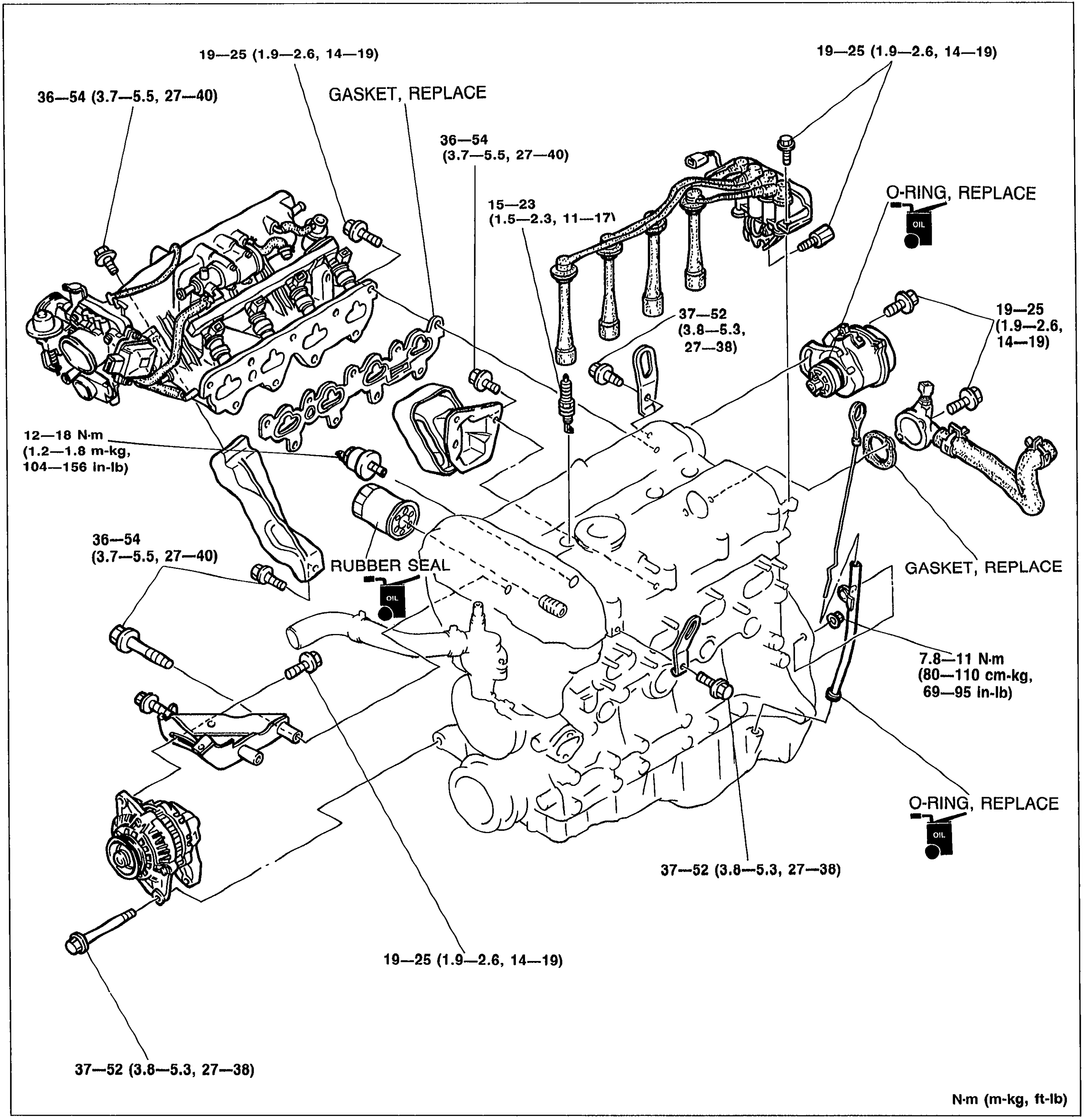
Water Pump Pulley

1. Install the water pump pulley.

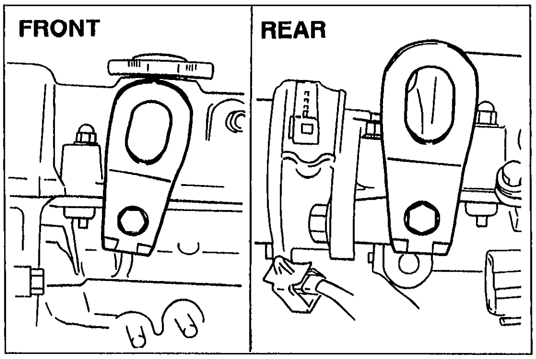
Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

AUXILIARY PARTS

Torque Specifications


19—25 (1.9—2.6, 14—19)
36—54 (3.7—5.5, 27—40)
GASKET, REPLACE
36—54
(3.7—5.5, 27—40)
15—23
(1.5—2.3, 11—17)
19—25 (1.9—2.6, 14—19)
O-RING, REPLACE
OIL
37—52
(3.8—5.3,
27—38)
19—25
(1.9—2.6,
14—19)
12—18 N·m
(1.2—1.8 m-kg,
104—156 in-lb)
36—54
(3.7—5.5, 27—40)
RUBBER SEAL
OIL
GASKET, REPLACE
7.8—11 N·m
(80—110 cm-kg,
69—95 in-lb)
O-RING, REPLACE
OIL
37—52 (3.8—5.3, 27—38)
19—25 (1.9—2.6, 14—19)
37—52 (3.8—5.3, 27—38)
N·m (m-kg, ft-lb)

05U0BX-237

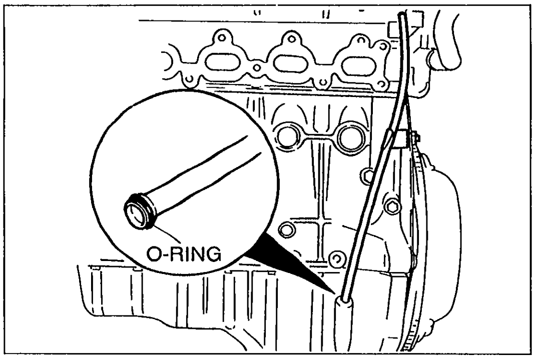


05U0BX-238

Engine Hanger

1. Install the front and rear engine hangers.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)



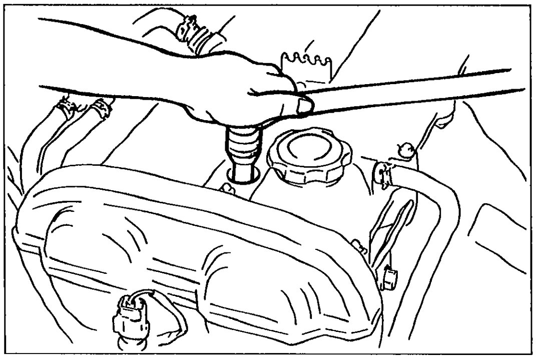
05U0BX-239

Oil Level Gauge Pipe

1. Apply a small amount of clean engine oil to the new O-ring.
2. Push the level gauge pipe into the oil pan.
3. Tighten the level gauge pipe bracket nut.

Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

4. Install the level gauge.

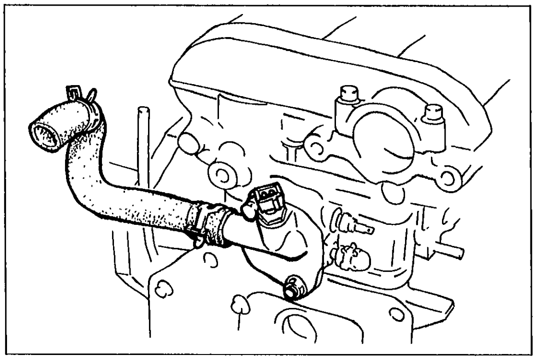


05U0BX-240

Spark Plug

1. Apply antiseize compound or molybdenum-based lubricant to the spark plug threads.
2. Install the spark plugs.

Tightening torque:
15—23 N·m (1.5—2.3 m-kg, 11—17 ft-lb)

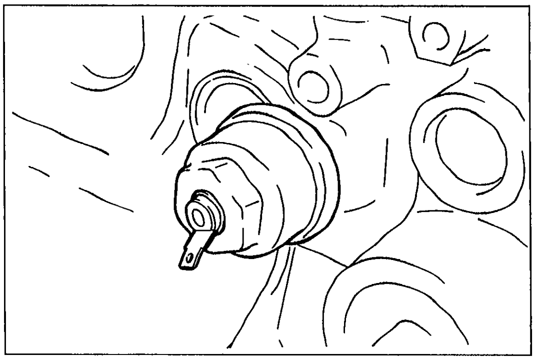


05U0BX-241

Water Outlet Pipe

1. Remove all foreign material from the water outlet pipe mounting surface.
2. Install a new gasket and the water outlet pipe.

Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

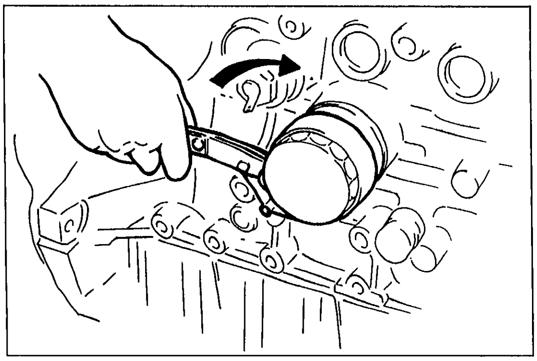


05U0BX-242

Oil Pressure Gauge Sender Unit

1. Install the oil pressure gauge sender unit.

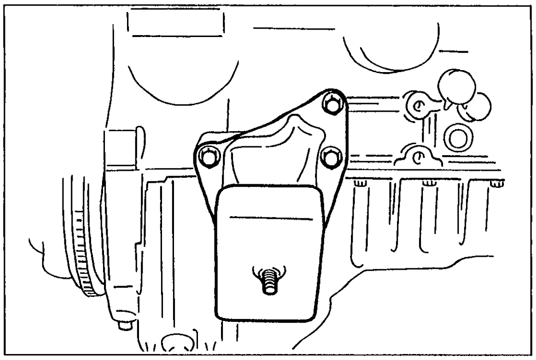
Tightening torque:
12—18 N·m (1.2—1.8 m-kg, 104—156 in-lb)



05U0BX-243

Oil Filter

1. Remove all foreign material from the oil filter mounting surface.
2. Apply a small amount of clean engine oil to the rubber seal of the oil filter.
3. Install the oil filter and tighten it by hand until the rubber seal contacts the base.
4. Tighten the filter 1 and 1/6 turn with a filter wrench.

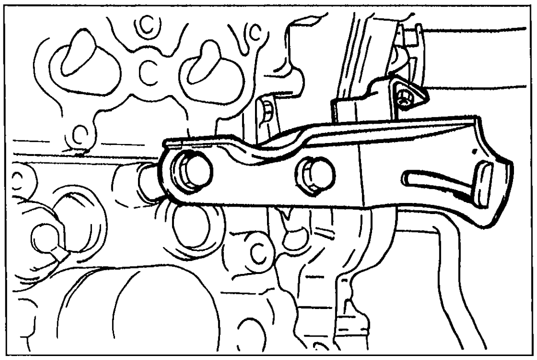


05U0BX-244

Right Engine Mount

1. Install the right engine mount.

Tightening torque:
36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)

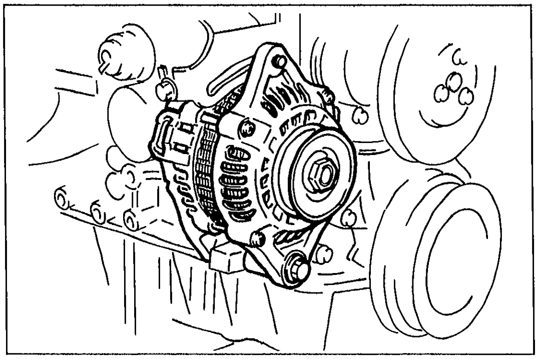


05U0BX-245

Alternator Bracket

1. Install the alternator bracket.

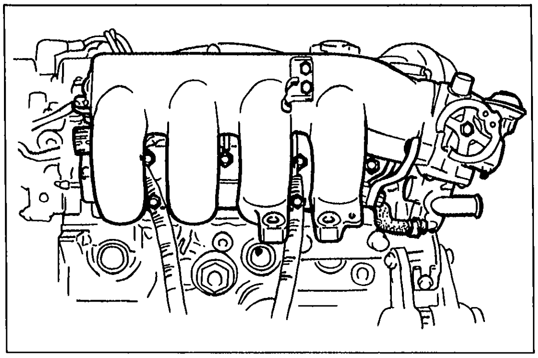
Tightening torque:
36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)



05U0BX-246

Alternator

1. Install the alternator and loosely tighten the mounting bolts.

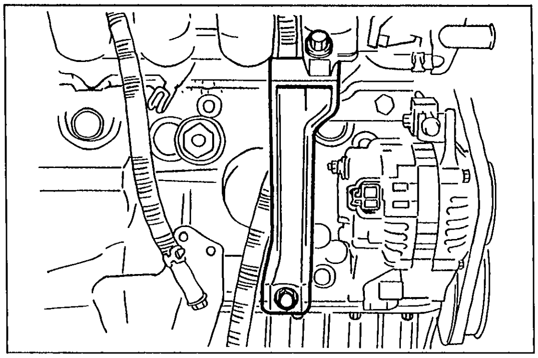


05U0BX-247

Intake Manifold Assembly

1. Remove all foreign material from the intake manifold contact surface.
2. Install a new gasket and the intake manifold assembly.

Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

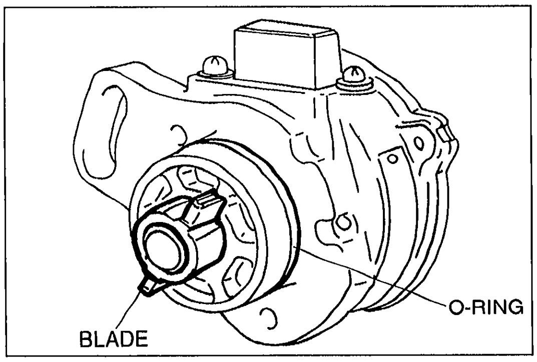


05U0BX-248

Manifold Bracket

1. Install the manifold bracket.

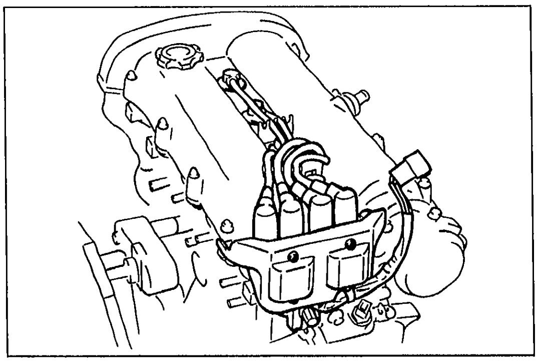
Tightening torque:
36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)



05U0BX-249

Crank Angle Sensor

1. Apply grease to a new O-ring and the blade.
2. Install the crank angle sensor and loosely tighten the installation bolt.



05U0BX-250

Ignition Coil and High-tension Lead

1. Install the ignition coil.

Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

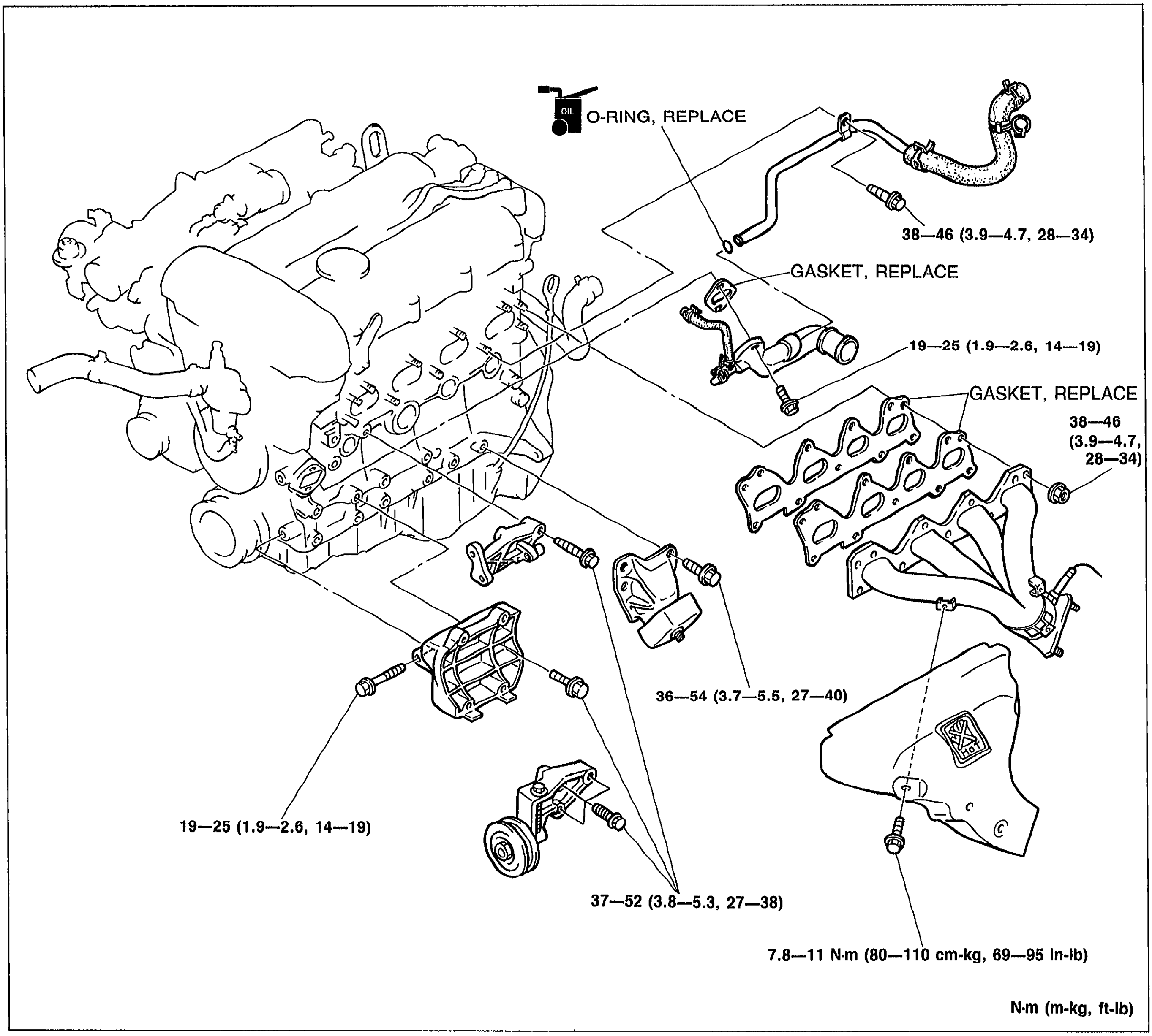
2. Connect the high-tension leads.

ENGINE STAND DISMOUNTING

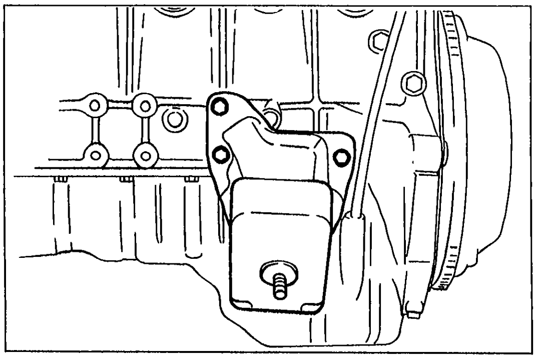
PROCEDURE

1. Remove the engine from the **SST (engine stand)**.
2. Remove the **SST (engine hanger)** from the engine.
3. Install the parts shown in the figure.

Torque Specifications


OIL
O-RING, REPLACE
38—46 (3.9—4.7, 28—34)
GASKET, REPLACE
19—25 (1.9—2.6, 14—19)
GASKET, REPLACE
38—46 (3.9—4.7, 28—34)
36—54 (3.7—5.5, 27—40)
19—25 (1.9—2.6, 14—19)
37—52 (3.8—5.3, 27—38)
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
N·m (m-kg, ft-lb)

05U0BX-251

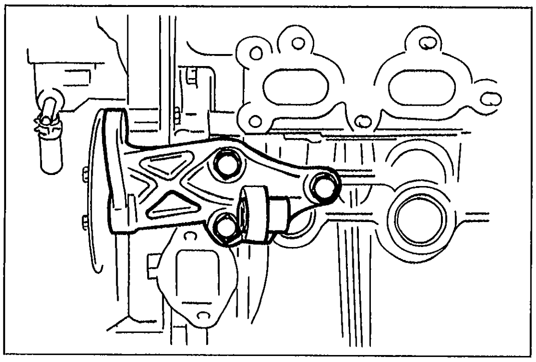


05U0BX-252

Left Engine Mount

1. Install the left engine mount.

Tightening torque:
36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)



05U0BX-253

P/S Oil Pump Bracket

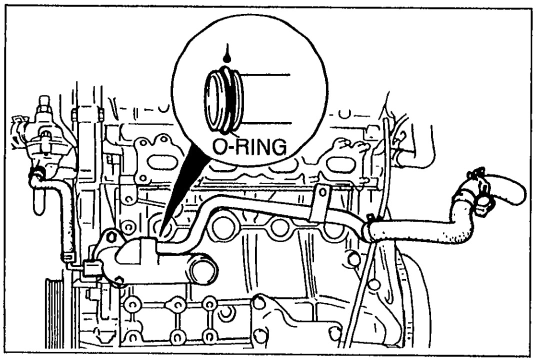
1. Install the P/S oil pump bracket.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

Idler

1. Install the A/C idler.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)



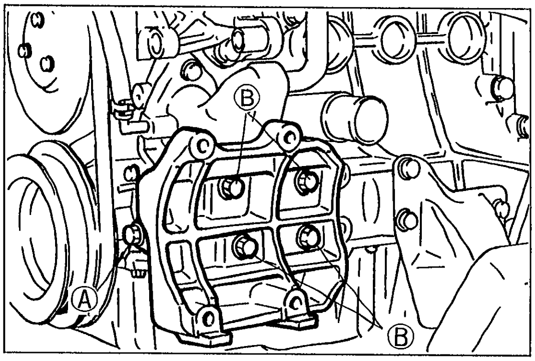
05U0BX-254

Water Inlet Pipe and Bypass Pipe

1. Remove all foreign material from the water inlet pipe mounting surface.
2. Install a new gasket and the water inlet pipe.

Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

3. Apply a small amount of engine coolant to the new O-ring.
4. Install the water bypass pipe.

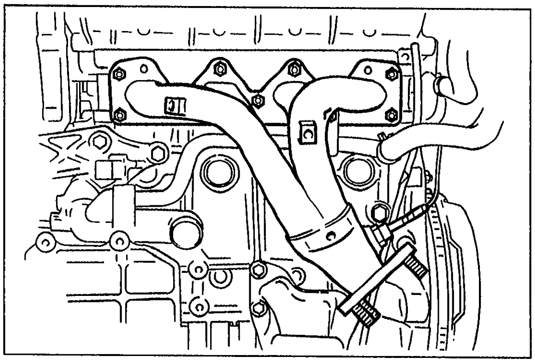


05U0BX-255

A/C Compressor Bracket

1. Install the A/C compressor bracket.

Tightening torque:
Ⓐ: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)
Ⓑ: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

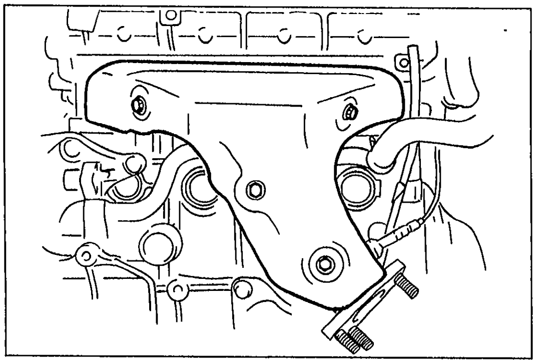


05U0BX-256

Exhaust Manifold

1. Remove all foreign material from the exhaust manifold contact surface.
2. Install a new gasket and the exhaust manifold.

Tightening torque:
38—46 N·m (3.9—4.7 m-kg, 28—34 ft-lb)



05U0BX-257

Exhaust Manifold Insulator

1. Install the exhaust manifold insulator.

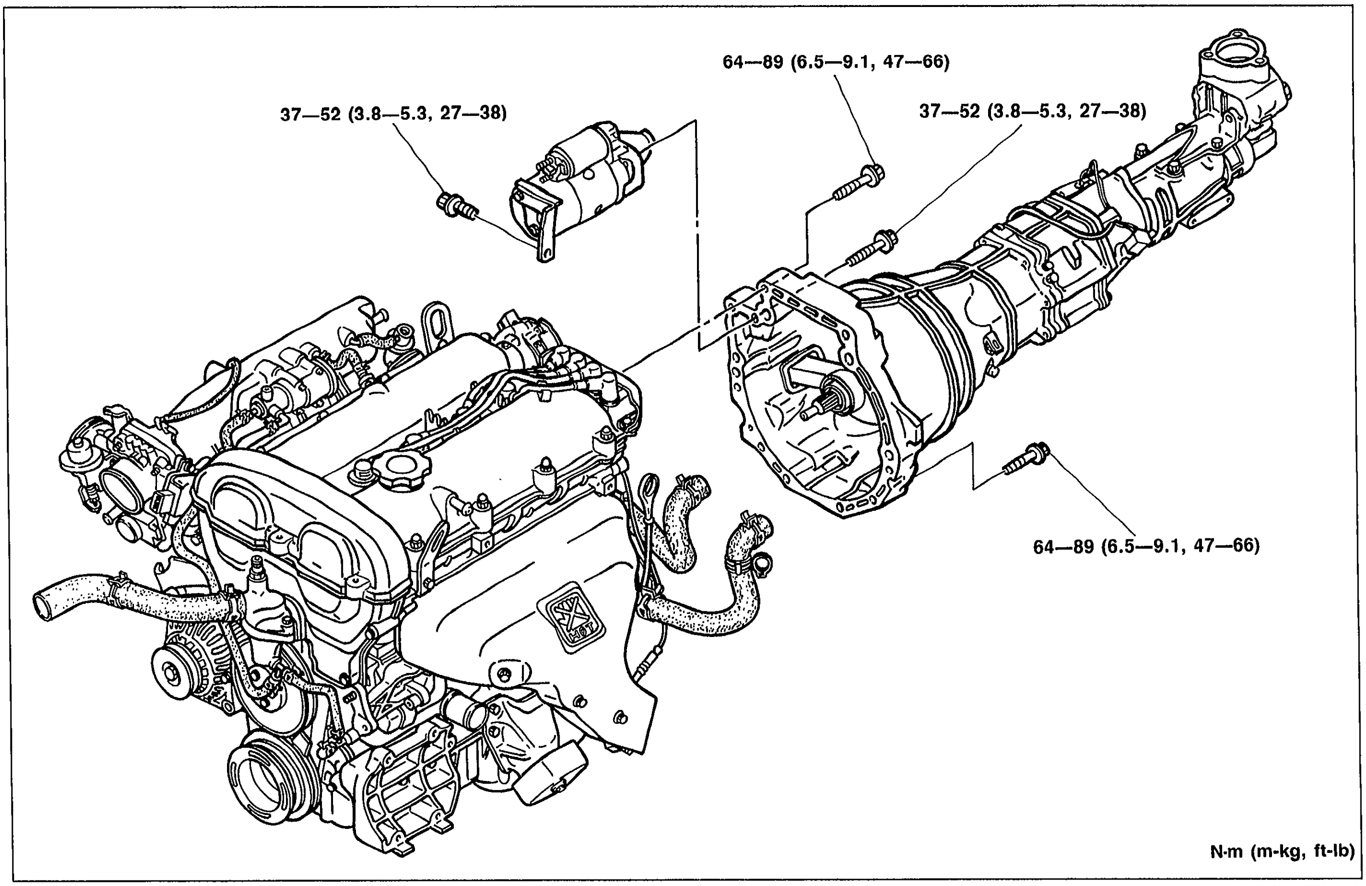
Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

INSTALLATION

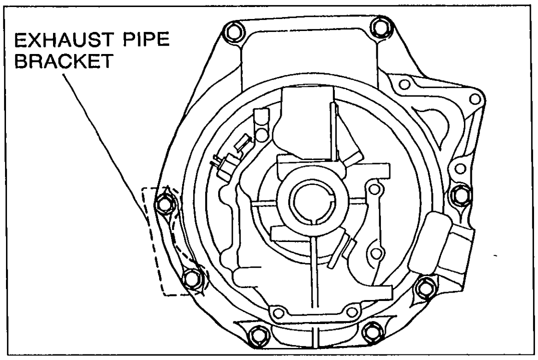
PROCEDURE

1. Tighten all bolts and nuts to the specified torques.

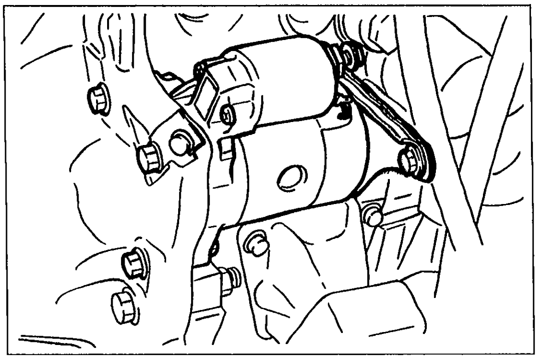
Step 1
Torque Specifications


64—89 (6.5—9.1, 47—66)
37—52 (3.8—5.3, 27—38)
37—52 (3.8—5.3, 27—38)
64—89 (6.5—9.1, 47—66)
N·m (m-kg, ft-lb)

05U0BX-258


EXHAUST PIPE BRACKET

05U0BX-259



05U0BX-260

Transmission

1. Join the engine and transmission.
2. Install the transmission mounting bolts.

Caution
- **Install the exhaust pipe bracket as shown.**

3. Tighten the bolts.

Tightening torque:
64—89 N·m (6.5—9.1 m-kg, 47—66 ft-lb)

Starter

1. Install the starter to the transmission housing.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

2. Install the starter bracket bolt.

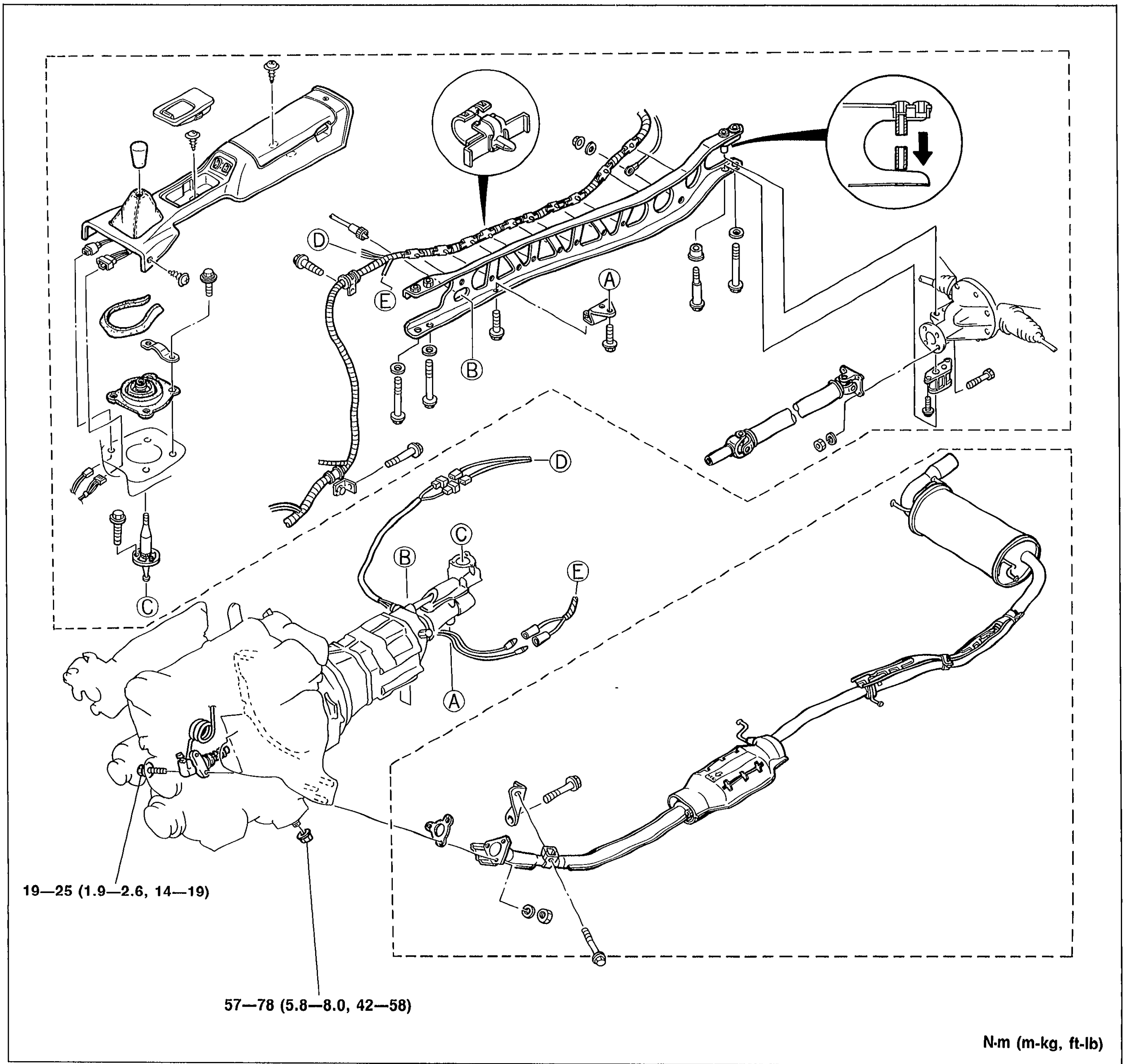
Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

Step 2

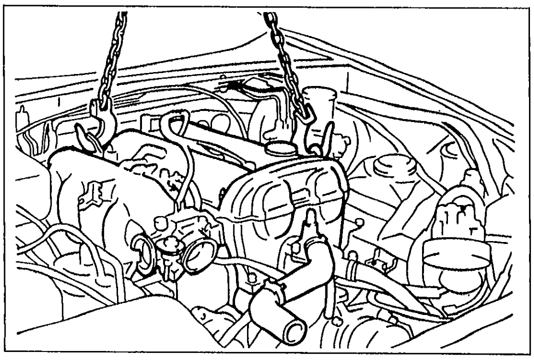
Warning

- **Be sure the vehicle is securely supported on safety stands.**

Torque Specifications



05U0BX-261



05U0BX-262

Engine and transmission assembly

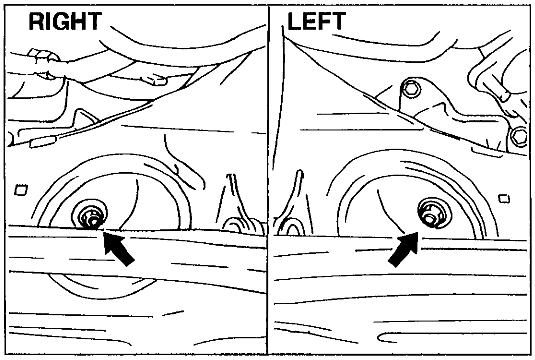
1. Suspend the engine and transmission assembly.

   Caution

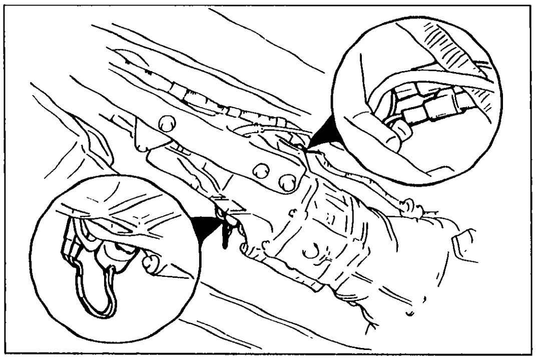
   - **Do not damage any components in the engine compartment.**

2. Install the engine with the transmission tilting downward.
3. Align the engine mounts with the crossmember mounting holes.
4. Support the transmission with a transmission jack.
5. Install the engine mount nuts and loosely tighten them.

INSTALLATION



05U0BX-263



05U0BX-264

Power plant frame

1. Install the power plant frame. (Refer to page J–45.)

Engine mount nut

1. Tighten the engine mount nuts.

Tightening torque:
57—78 N·m (5.8—8.0 m-kg, 42—58 ft-lb)

Propeller shaft, speedometer cable, and shift knob

1. Install the propeller shaft, speedometer cable, and shift knob. (Refer to page J–45.)

Transmission harness

1. Connect the transmission harness.

Clutch release cylinder

1. Install the clutch release cylinder.

Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

Exhaust pipe

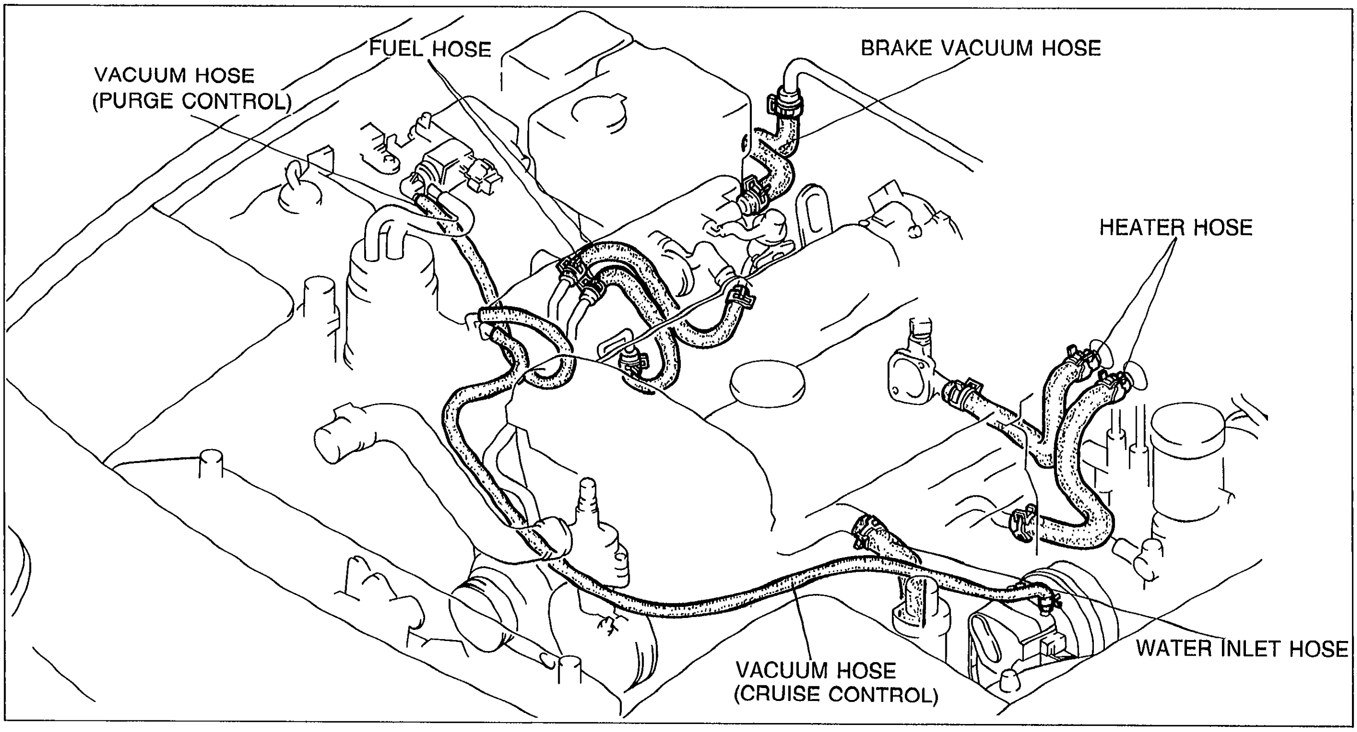
1. Install the exhaust pipe assembly. (Refer to page F–115.)

Step 3

1. Connect the hoses shown in the figure.

Caution

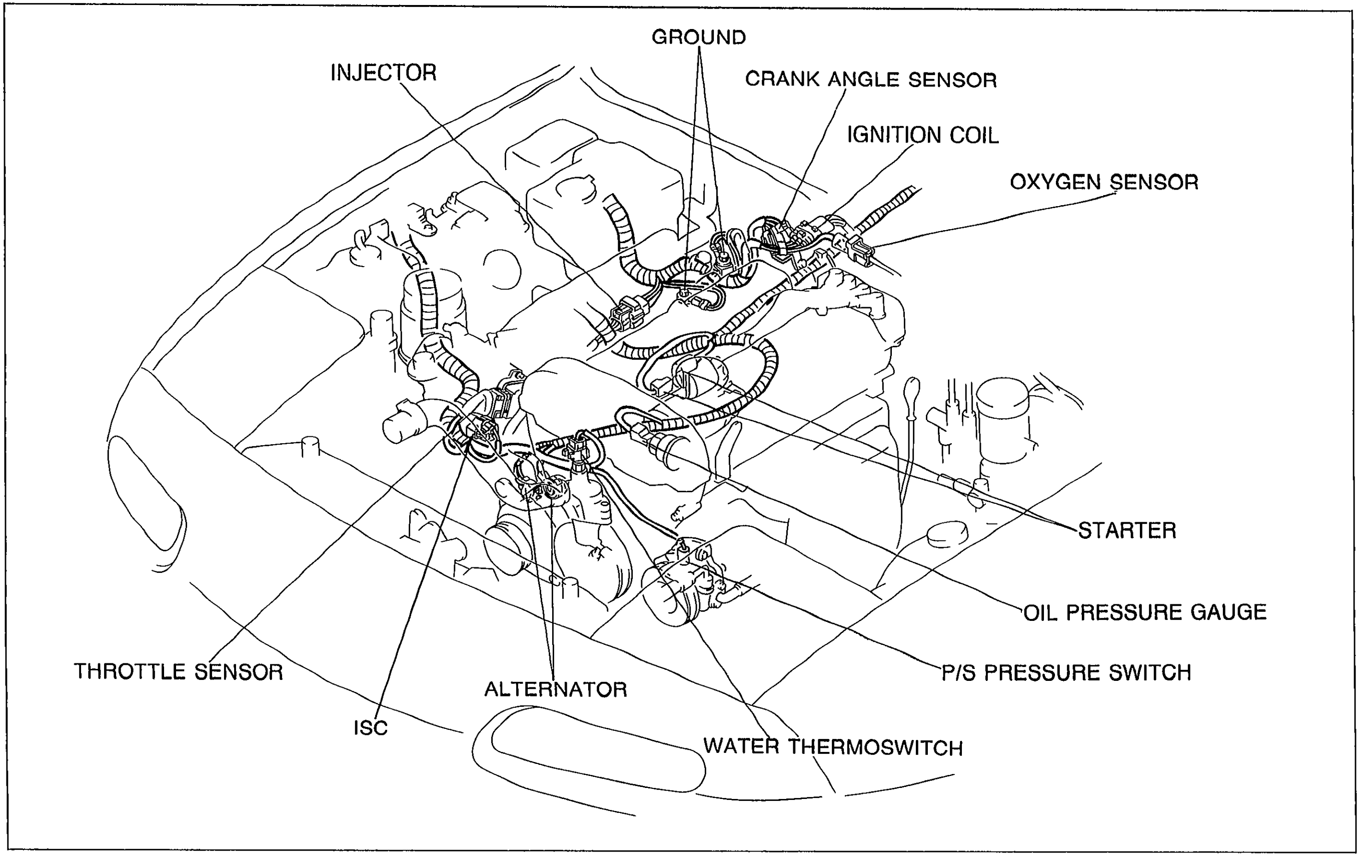
- **Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.**


FUEL HOSE
BRAKE VACUUM HOSE
VACUUM HOSE
(PURGE CONTROL)
HEATER HOSE
WATER INLET HOSE
VACUUM HOSE
(CRUISE CONTROL)

05U0BX-267

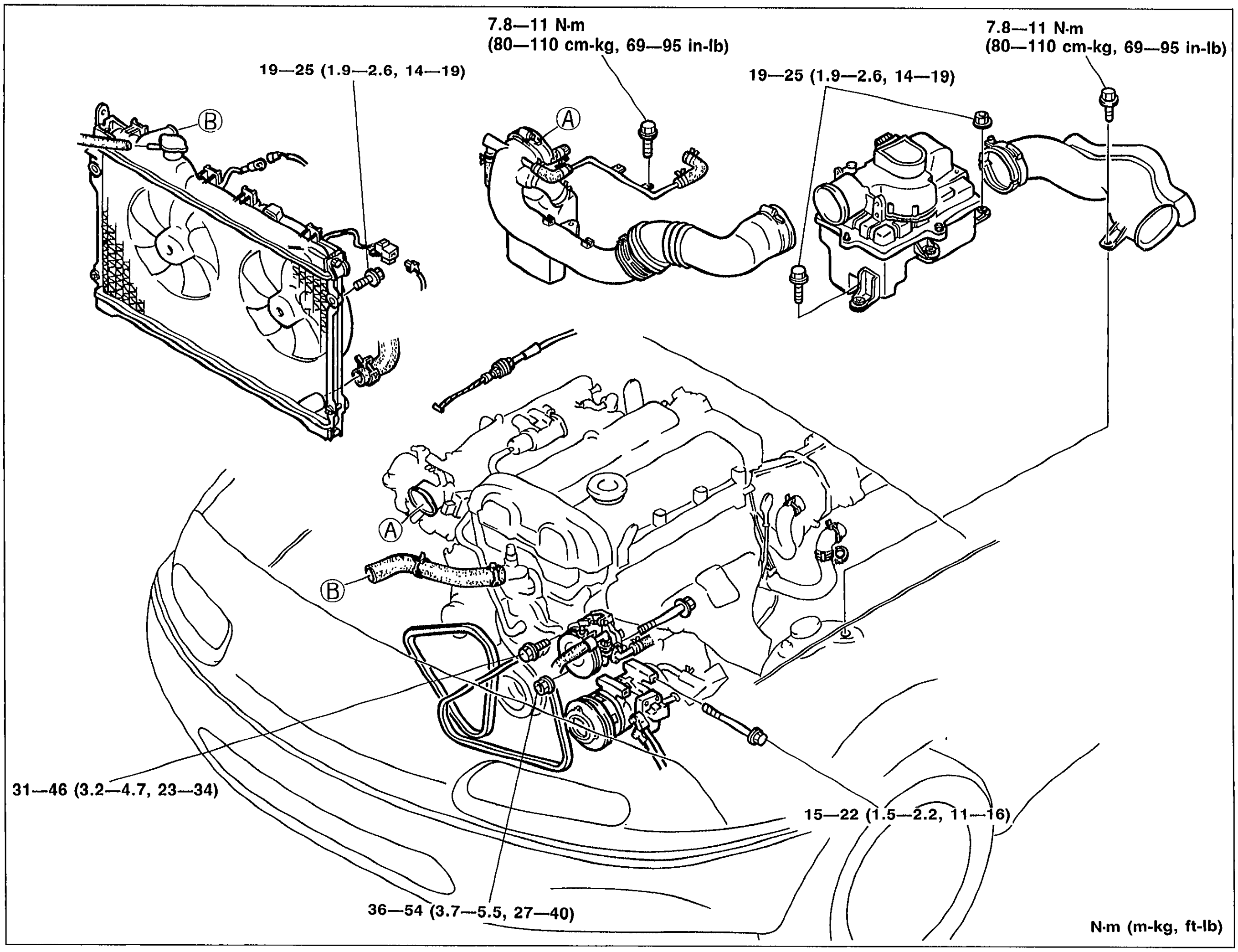
Step 4

1. Connect the harness connectors shown in the figure.

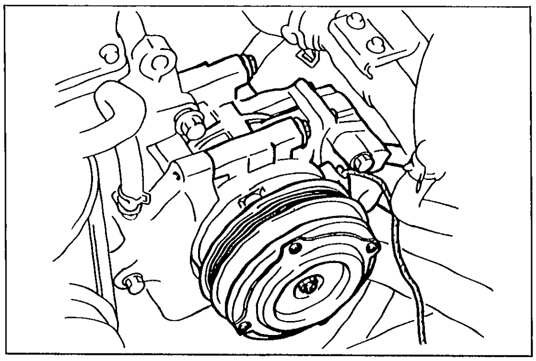

GROUND
INJECTOR
CRANK ANGLE SENSOR
IGNITION COIL
OXYGEN SENSOR
STARTER
OIL PRESSURE GAUGE
THROTTLE SENSOR
P/S PRESSURE SWITCH
ALTERNATOR
ISC
WATER THERMOSWITCH

05U0BX-268

Step 5
Torque Specifications


7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
19—25 (1.9—2.6, 14—19)
19—25 (1.9—2.6, 14—19)
Ⓑ
Ⓐ
Ⓐ
Ⓑ
31—46 (3.2—4.7, 23—34)
15—22 (1.5—2.2, 11—16)
36—54 (3.7—5.5, 27—40)
N·m (m-kg, ft-lb)

05U0BX-269

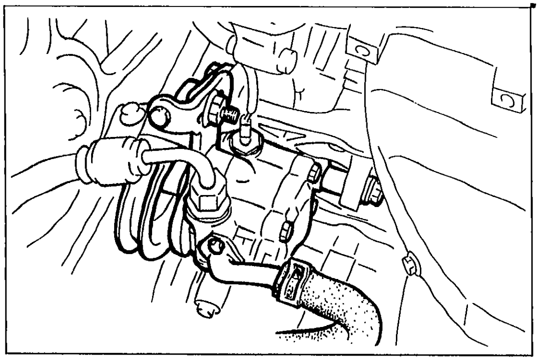


05U0BX-270

A/C compressor

1. Install the A/C compressor.

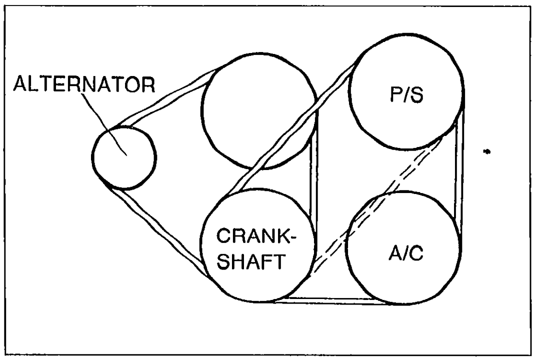
Tightening torque:
15—22 N·m (1.5—2.2 m-kg, 11—16 ft-lb)



05U0BX-271

P/S oil pump

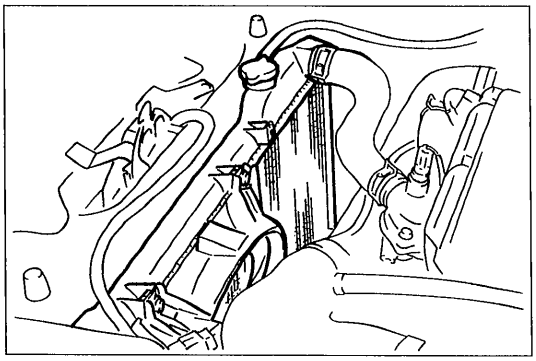
1. Install the P/S oil pump and loosely tighten the mounting bolts.



05U0BX-272

Drive belt

1. Install the alternator drive belt.
2. Install the P/S and/or A/C drive belt.
3. Adjust the drive belt deflections, and tighten the alternator and P/S mounting bolts and nuts. (Refer to page B–6.)



05U0BX-273

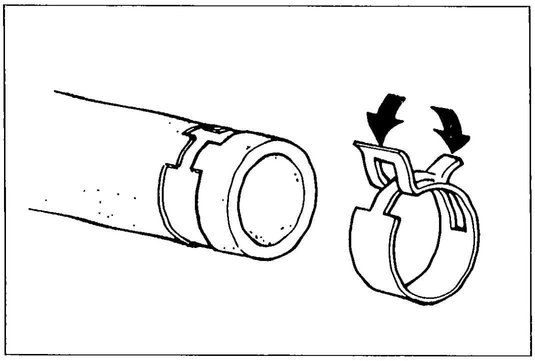
Radiator and cooling fan assembly

1. Install the radiator and cooling fan assembly.

Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

2. Tighten the A/C pipe bracket to the radiator.

Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

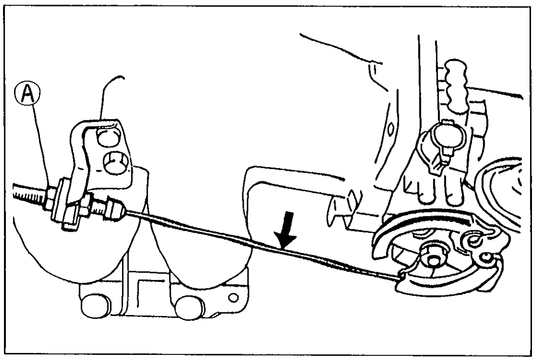


05U0BX-274

3. Connect the upper and lower radiator hoses.

Caution
- **Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.**

4. Connect the coolant reservoir hose.
5. Connect the cooling fan connector.

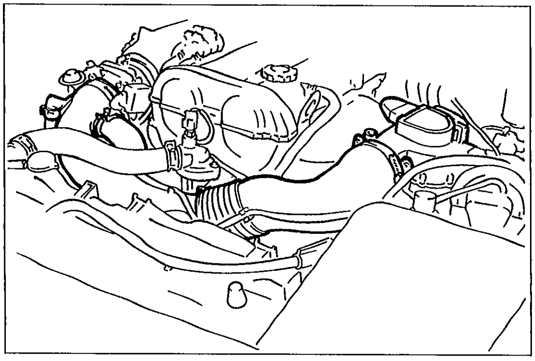


05U0BX-275

Accelerator cable

1. Install the accelerator cable.
2. Adjust the cable deflection by turning nut A.

Deflection: 1—3mm (0.04—0.12 in)



05U0BX-276

Air cleaner assembly

1. Install the air cleaner assembly.

Tightening torque
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

Steps After Installation

1. Install the under cover.
2. If the engine oil was drained, fill with the specified amount and type of engine oil. (Refer to page D–5.)
3. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E–5.)
4. If the transmission oil was drained, fill with the specified amount and type of transmission oil. (Refer to page J–8.)
5. Connect the negative battery cable.
6. Start the engine and check the following.
    (1) Engine oil, transmission oil, and engine coolant leakage.
    (2) Ignition timing, idle speed. (Refer to page B–8.)
    (3) Operation of emission control system.
7. Perform a road test.
8. Recheck the engine oil and engine coolant levels.

05U0BX-277

LUBRICATION SYSTEM

INDEX .... D– 2
OUTLINE .... D– 3
  SPECIFICATIONS .... D– 3
TROUBLESHOOTING GUIDE .... D– 3
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  PREPARATION .... D– 4
  INSPECTION .... D– 4
ENGINE OIL .... D– 5
  INSPECTION .... D– 5
  REPLACEMENT .... D– 5
OIL FILTER .... D– 5
  REPLACEMENT .... D– 5
OIL PAN .... D– 6
  REMOVAL / INSPECTION / INSTALLATION .. D– 6
OIL PUMP .... D– 9
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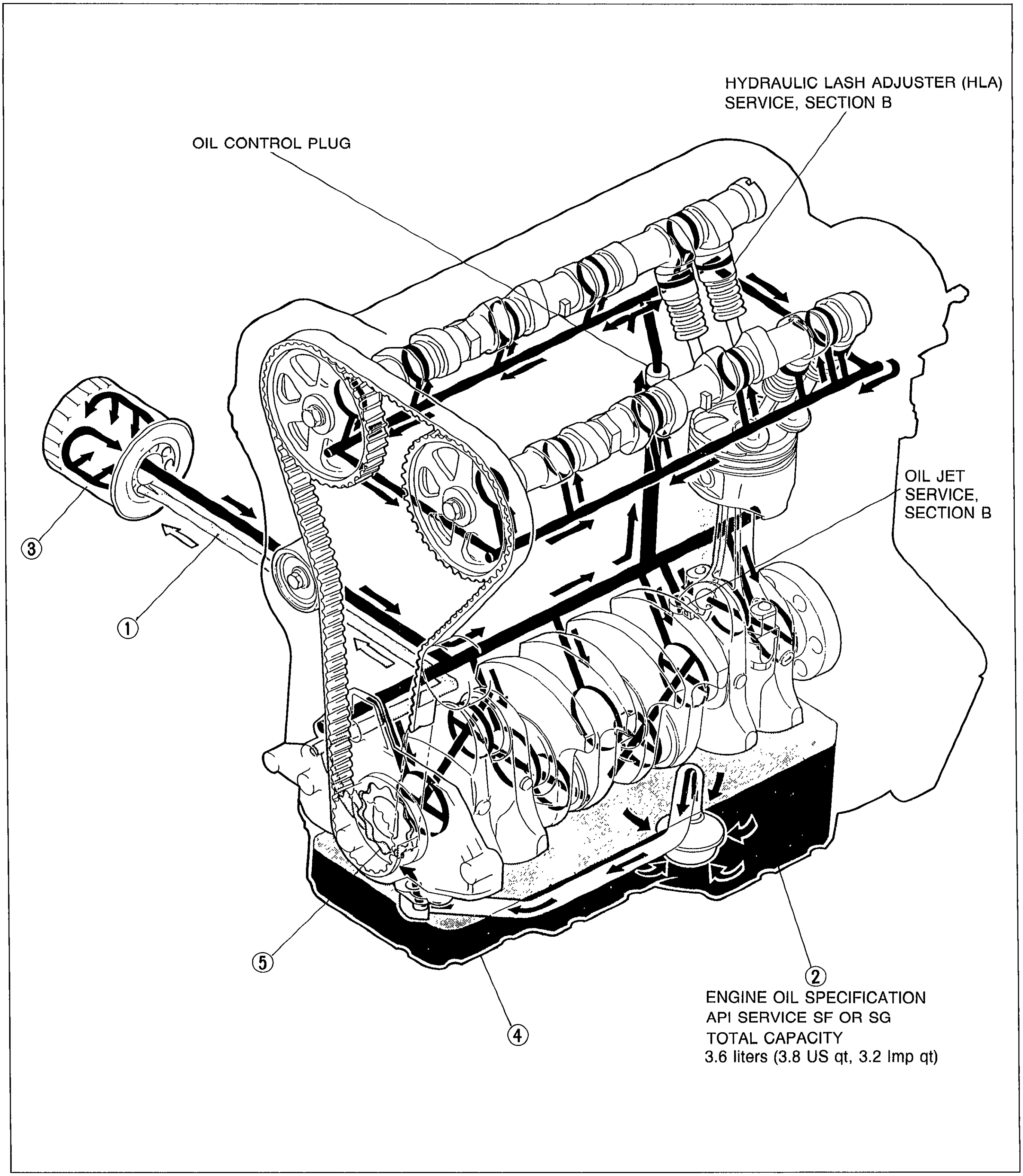
  DISASSEMBLY / INSPECTION / ASSEMBLY . D–11

05U0DX-001

INDEX


HYDRAULIC LASH ADJUSTER (HLA)
SERVICE, SECTION B
OIL CONTROL PLUG
OIL JET
SERVICE,
SECTION B
③
①
⑤
④
②
ENGINE OIL SPECIFICATION
API SERVICE SF OR SG
TOTAL CAPACITY
3.6 liters (3.8 US qt, 3.2 Imp qt)

05U0DX-002

1. Oil pressure
   - Inspection .... page D– 4
2. Engine oil
   - Inspection .... page D– 5
   - Replacement .... page D– 5
3. Oil filter
   - Replacement .... page D– 5
4. Oil pan
   - Removal / Inspection / Installation .... page D– 6
5. Oil pump
   - Removal / Installation.................. page D– 9
   - Disassembly / Inspection / Assembly................................. page D–11

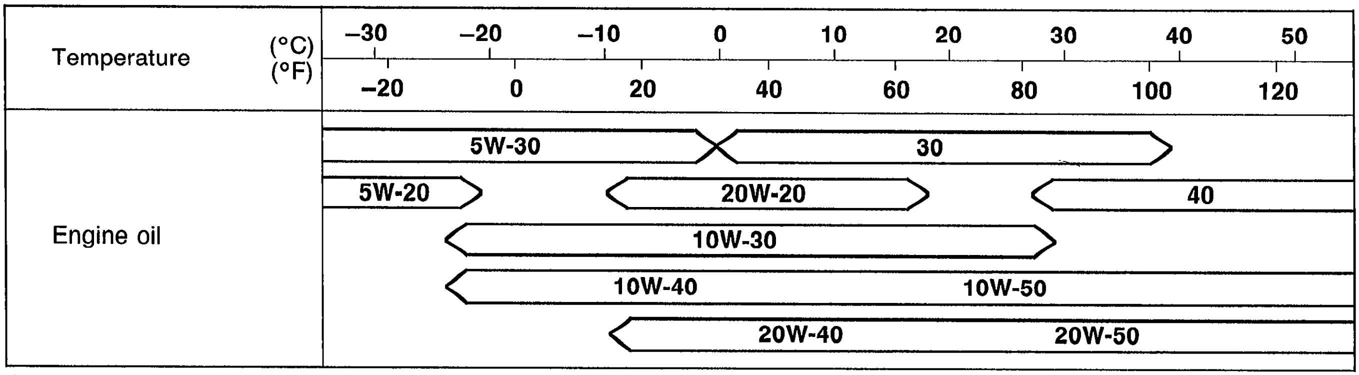
OUTLINE

SPECIFICATIONS

Item		Engine B6 DOHC
Lubrication system		Force-fed type
Oil pump	Type	Trochoid gear
	Relief pressure kPa (kg/cm², psi)	343—441 (3.5—4.5, 50—64)
Oil filter	Type	Full-flow, paper element
	Relief pressure differential kPa (kg/cm², psi)	78—118 (0.8—1.2, 11—17)
Oil capacity	Total (dry engine) liters (US qt, Imp qt)	3.6 (3.8, 3.2)
	Oil pan liters (US qt, Imp qt)	3.2 (3.4, 2.8)
	Oil filter liter (US qt, Imp qt)	0.17 (0.18, 0.15)
Engine oil		API service SF or SG

05U0DX-003

Recommended SAE Viscosity



Anticipated ambient temperature range before succeeding oil change, °C (°F).

05U0DX-004

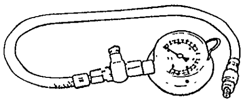
TROUBLESHOOTING GUIDE

Problem	Possible Cause	Remedy	Page
Engine hard starting	Improper engine oil Insufficient engine oil	Replace Add oil	D– 5 D– 5
Excessive oil consumption	Oil working up or down Oil leakage	Refer to Section B Repair	—
Oil pressure drop	Insufficient oil Oil leakage Worn and/or damaged oil pump gear Worn plunger (inside oil pump) or weak spring Clogged oil strainer Excessive main bearing or connecting rod bearing clearance	Add oil Repair Replace Replace Clean Refer to Section B	D– 5 — D–11, 12 D–11, 12 —
Oil pressure gauge (meter) does not operate	Oil pressure drop Malfunction of oil pressure gauge Malfunction of electrical system	As described above Refer to Section T Refer to Section T	—

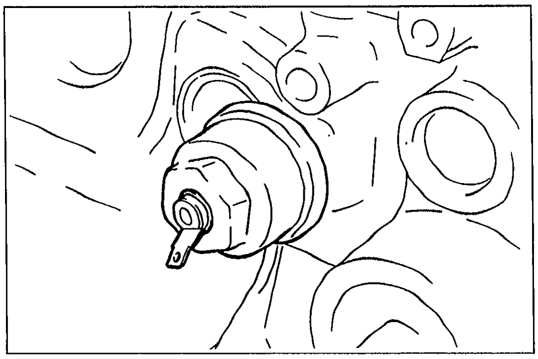
05U0DX-005

OIL PRESSURE

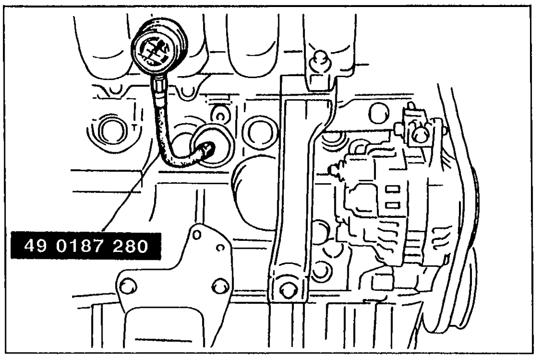
PREPARATION
SST

49 0187 280 Gauge, oil pressure 	For inspection of oil pressure

05U0DX-006



05U0DX-007



05U0DX-008

INSPECTION

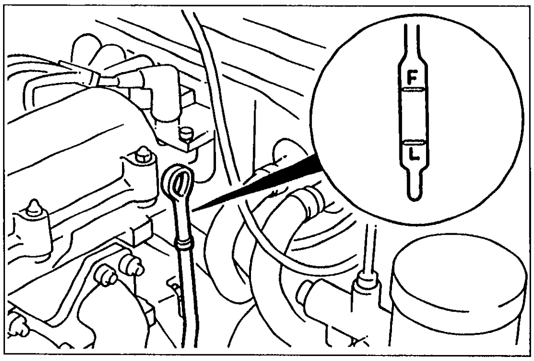
1. Remove the oil pressure gauge sender unit.
2. Screw the **SST** into the oil pressure gauge sender unit installation hole.
3. Warm up the engine to normal operating temperature.
4. Run the engine at 1,000 rpm and 3,000 rpm, and note the gauge reading.

   Oil pressure:
   196—294 kPa (2.0—3.0 kg/cm^2, 28—43 psi)—1,000 rpm
   294—392 kPa (3.0—4.0 kg/cm^2, 43—57 psi)—3,000 rpm

5. If the pressure is not as specified, check for the cause and repair. (Refer to Troubleshooting Guide.)
6. Remove the **SST** and install the oil pressure gauge sender unit.

   Tightening torque:
   12—18 N·m (1.2—1.8 m-kg, 104—156 in-lb)

05U0DX-009



05U0DX-036

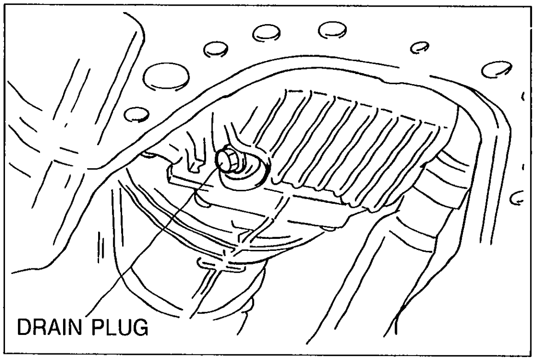
ENGINE OIL

INSPECTION

1. Be sure the vehicle is on level ground.
2. Warm up the engine to normal operating temperature and stop it.
3. Wait for five minutes.
4. Remove the oil level gauge and check the oil level and condition.
5. Add or replace oil as necessary.

Note

- **The distance between the L and F marks on the level gauge represents 0.8 liter (0.85 US qt, 0.70 Imp qt).**



05U0DX-011

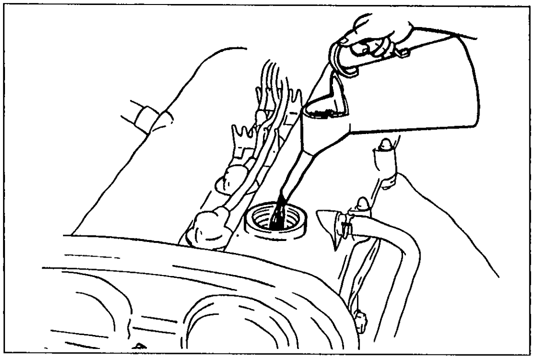
REPLACEMENT

Warning

- **Be careful when draining; the oil is hot.**

1. Warm up the engine to normal operating temperature and stop it.
2. Remove the oil filler cap and the oil pan drain plug.
3. Drain the oil into a suitable container.
4. Install a new gasket and the drain plug.

Tightening torque:
29—41 N·m (3.0—4.2 m-kg, 22—30 ft-lb)



05U0DX-012

5. Refill the engine with the specified type and amount of engine oil.
6. Refit the oil filler cap.

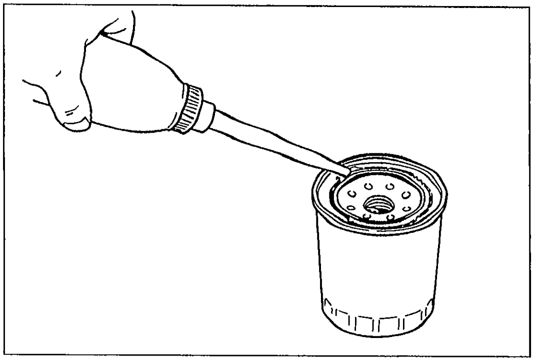
Oil pan capacity: 3.2 liters (3.4 US qt, 2.8 Imp qt)

7. Run the engine and check for leaks.
8. Check the oil level and add oil if necessary.

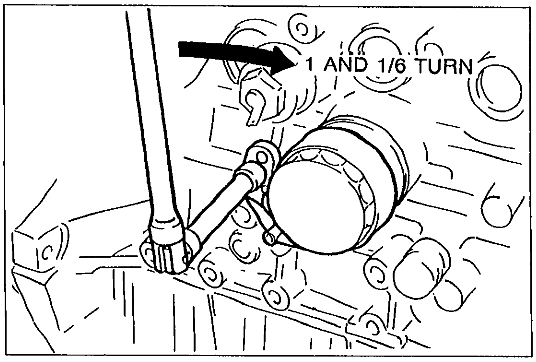
OIL FILTER

REPLACEMENT

1. Remove the oil filter with a suitable wrench.
2. Use a clean rag to wipe off the mounting surface on the engine.
3. Apply a small amount of clean engine oil to the rubber seal of the new filter.



05U0DX-013



05U0DX-014

4. Install the oil filter and tighten it by hand until the rubber seal contacts the base.
5. Tighten the filter 1 and 1/6 turn with a filter wrench.
6. Start the engine and check for leaks.
7. Check the oil level and add oil if necessary.

Oil filter capacity: 0.17 liter (0.18 US qt, 0.15 Imp qt)

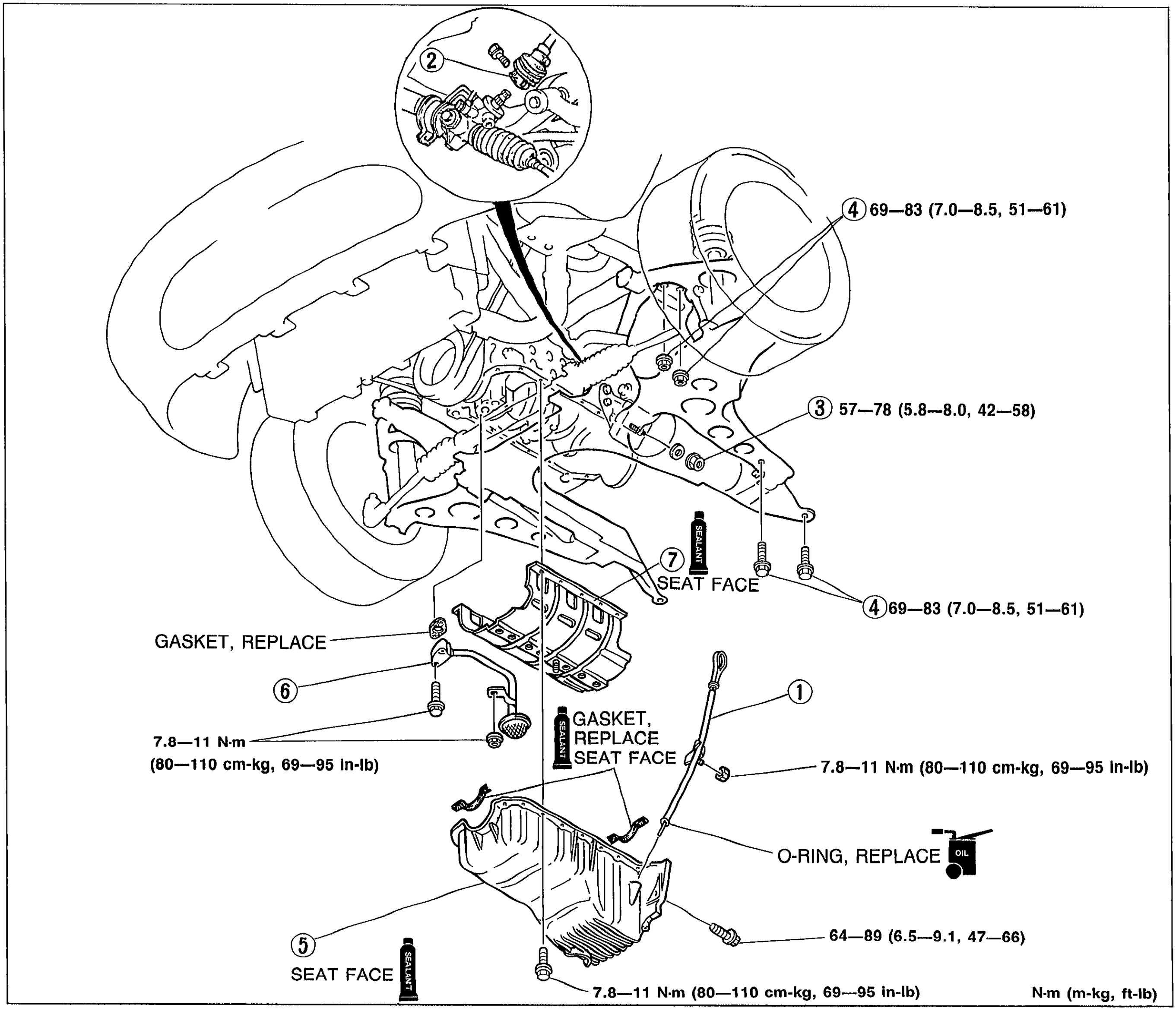
OIL PAN

REMOVAL / INSPECTION / INSTALLATION

Caution

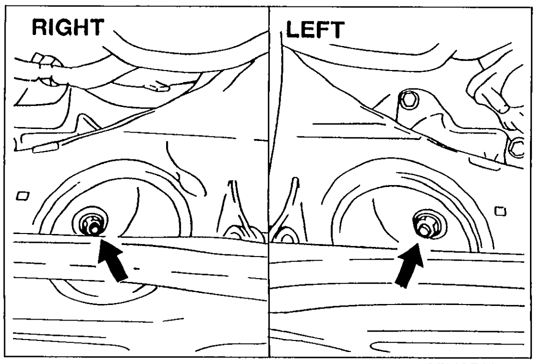
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

1. Disconnect the negative battery cable.
2. Drain the engine oil.
3. Remove the under cover.
4. Remove in the order shown in the figure, referring to **Removal Note**.
5. Install in the reverse order of removal, referring to **Installation Note**.


②
④ 69—83 (7.0—8.5, 51—61)
③ 57—78 (5.8—8.0, 42—58)
SEALANT
⑦
SEAT FACE
④ 69—83 (7.0—8.5, 51—61)
GASKET, REPLACE
⑥
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
SEALANT
GASKET,
REPLACE
SEAT FACE
①
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
O-RING, REPLACE
OIL
64—89 (6.5—9.1, 47—66)
⑤
SEAT FACE
SEALANT
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
N·m (m-kg, ft-lb)

05U0DX-015

1. Oil level gauge and pipe
2. Intermediate shaft
3. Engine mount nut
   Removal Note .... page D– 7
4. Crossmember installation bolt and nut
   Removal Note .... page D– 7
5. Oil pan
   Removal Note .... page D– 7
   Inspect for cracks, deformation, and damage
   Installation Note.......................... page D– 8
6. Oil strainer
7. Oil pan baffle
   Removal Note .... page D– 7
   Installation Note.......................... page D– 7

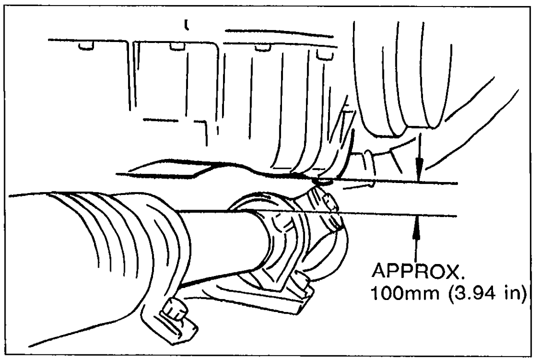


05U0DX-016

Removal Note

Engine mount nut

1. Loosen the oil pan mounting bolts.
2. Remove the engine mount nuts.
3. Lift the engine slightly with a hoist.



05U0DX-017

Crossmember installation bolt and nut

1. Support the crossmember with a transmission jack.
2. Remove the crossmember installation bolts and nuts.

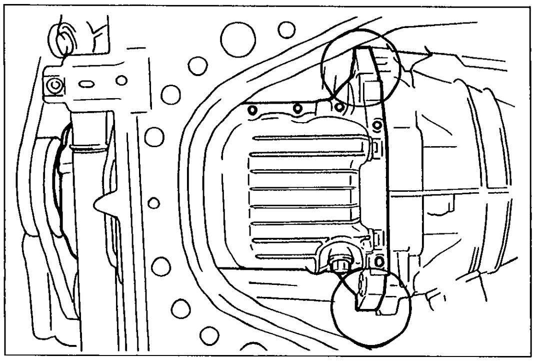
Caution

- **Do not damage the brake hoses, P/S hoses, and A/C hoses when lowering the crossmember.**

Note

- **Lower the crossmember after separating the steering intermediate shaft from the pinion shaft.**

3. Lower the crossmember until the clearance between the oil pan and the steering gear housing exceeds **approx. 100mm (3.94 in)**.



05U0BX-105

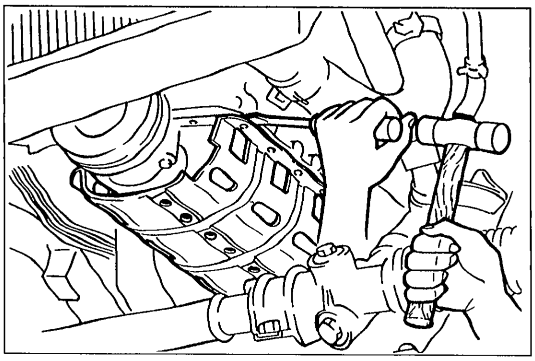
Oil pan

1. Remove the oil pan mounting bolts.

Caution

- **Do not force a prying tool between the cylinder block and the oil pan, which may damage the contact surfaces.**
- **Do not damage or scratch the contact surfaces when removing the old sealant.**

2. Insert a screwdriver or a suitable tool only at the points shown in the figure.
3. Remove the oil pan.



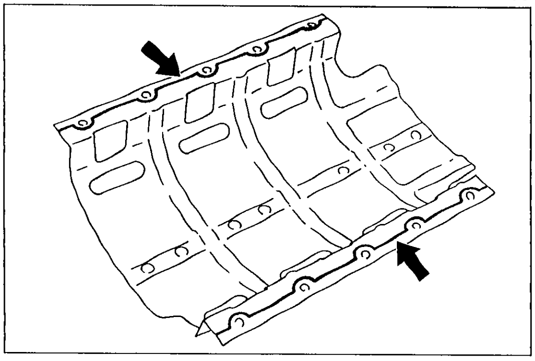
05U0BX-106

Oil pan baffle

Caution

- **Do not bend the baffle when prying it loose.**

1. Insert a screwdriver or other suitable tool between the cylinder block and the baffle to separate them.
2. Remove the baffle.



05U0DX-018

Installation Note

Oil pan baffle

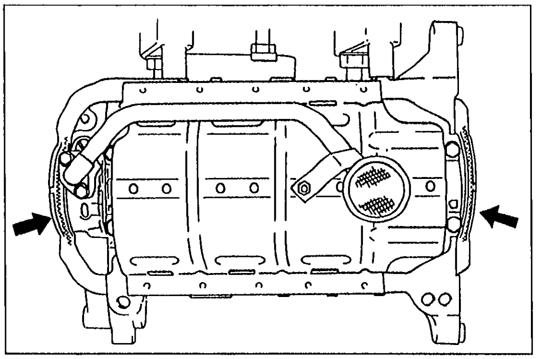
1. Remove all foreign material from the contact surfaces.

Caution

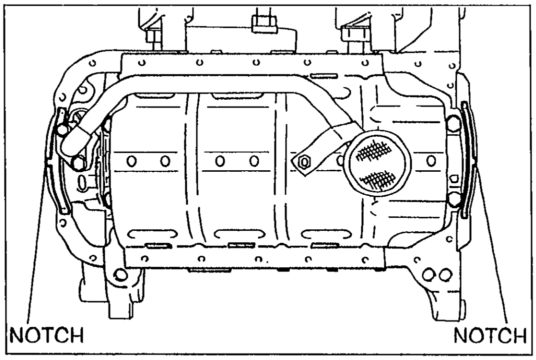
- **The oil pan must be secured within 30 minutes after the sealant is applied to the baffle.**

2. Apply a continuous bead of silicone sealant to the baffle along the inside of the bolt holes.
3. Install the baffle.

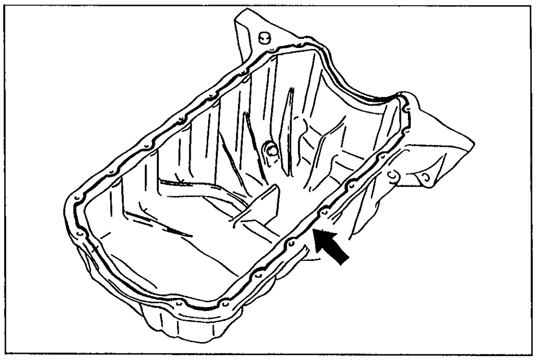
OIL PAN



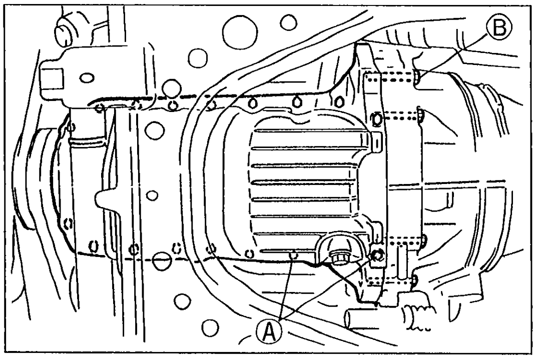
05U0DX-019



05U0BX-209



05U0DX-020



05U0DX-021

Oil pan

1. Remove all foreign material from the contact surfaces.
2. Apply silicone sealant to the shaded areas shown in the figure.
3. Install new gaskets onto the oil pump body and the rear cover with the projections in the notches shown in the figure.
4. Apply a continuous bead of silicone sealant to the oil pan along the inside of the bolt holes and overlap the ends.
5. Install the oil pan.

Tightening torque:

Ⓐ: 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
Ⓑ: 64—89 N·m (6.5—9.1 m-kg, 47—66 ft-lb)

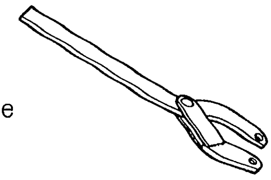
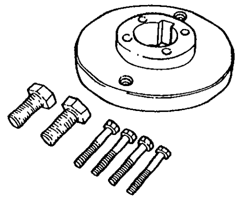
Steps After Installation

1. Install the under cover.
2. Fill with the specified amount and type of engine oil. (Refer to page D–5.)
3. Connect the negative battery cable.
4. Start the engine and check for leaks.
5. Check the oil level and add oil if necessary.

05U0DX-022

OIL PUMP

PREPARATION
SST

49 S120 710 Holder, coupling flange 	For removal and installation of timing belt pulley	49 B011 102 Lock tool, crankshaft 	For removal and installation of timing belt pulley

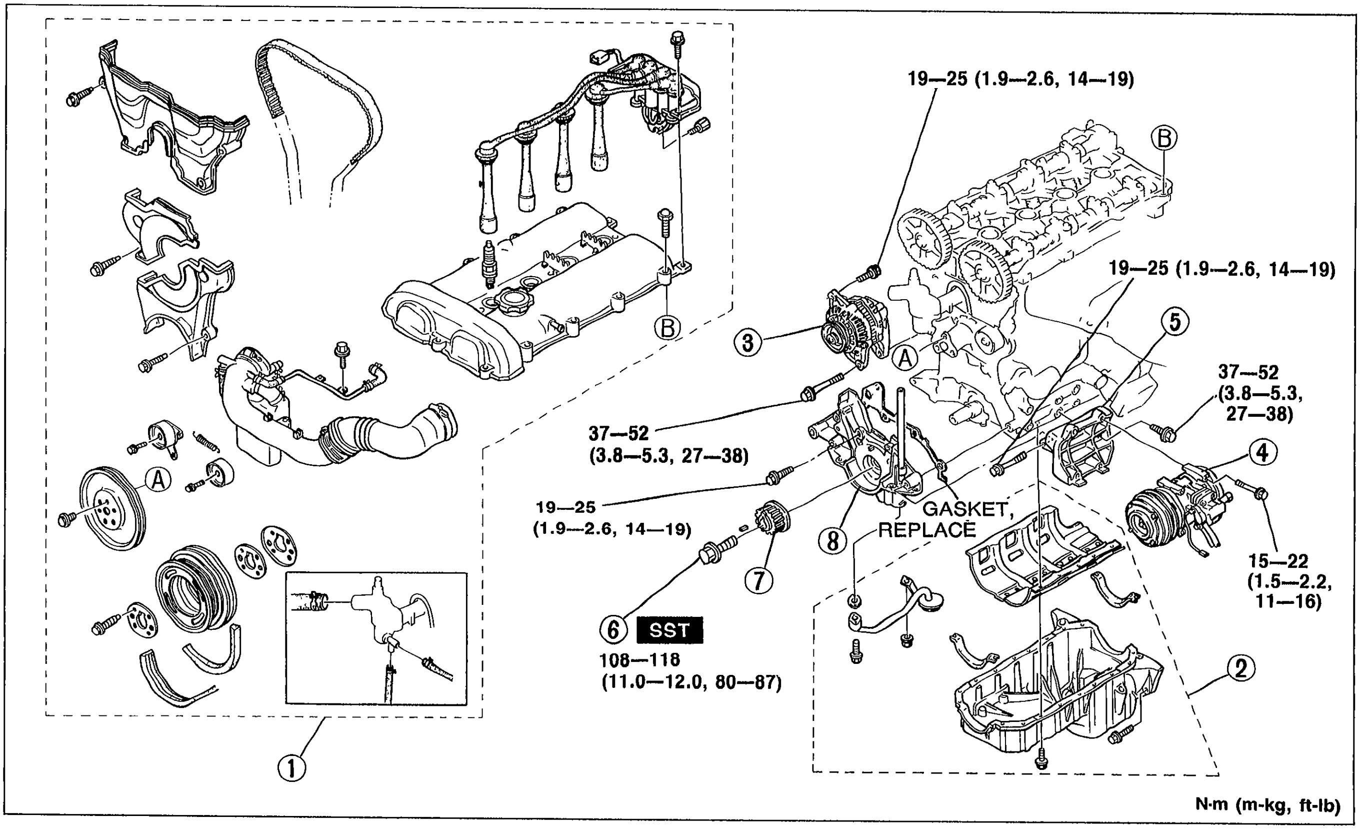
05U0DX-023

REMOVAL / INSTALLATION

Caution

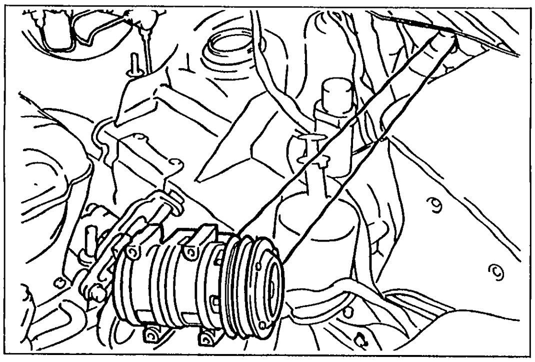
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

1. Disconnect the negative battery cable.
2. Drain the engine oil.
3. Remove in the order shown in the figure, referring to **Removal Note**.
4. Install in the reverse order of removal, referring to **Installation Note**.


19—25 (1.9—2.6, 14—19)
Ⓑ
19—25 (1.9—2.6, 14—19)
⑤
37—52 (3.8—5.3, 27—38)
④
Ⓑ
③
Ⓐ
37—52 (3.8—5.3, 27—38)
Ⓐ
19—25 (1.9—2.6, 14—19)
GASKET, REPLACE
⑧
⑦
15—22 (1.5—2.2, 11—16)
⑥ SST
108—118 (11.0—12.0, 80—87)
②
①
N·m (m-kg, ft-lb)

05U0DX-024

1. Timing belt
    Service .... page B–12
2. Oil pan
    Removal / Installation .... page D– 6
3. Alternator
4. A/C compressor
    Removal Note .... page D–10
5. A/C compressor bracket
6. Pulley lock bolt
    Removal Note .... page D–10
    Installation Note .... page D–10
7. Timing belt pulley
    Removal Note .... page D–10
    Installation Note .... page D–10
8. Oil pump
    Disassembly / Inspection / Assembly .... page D–11

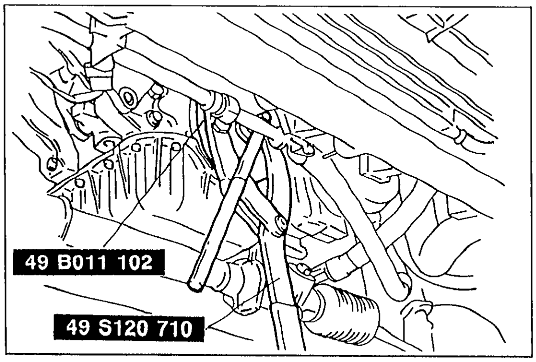


05U0DX-025

Removal Note
A/C compressor

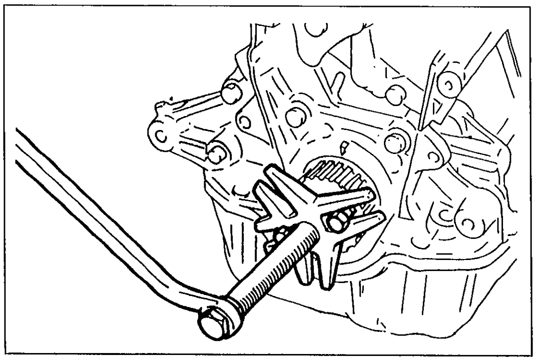
Caution
- **Do not damage the hoses.**

1. Remove the A/C compressor with the hoses still connected.
2. Position the compressor away from the engine and affix it with wire.



05U0DX-026

Pulley lock bolt
1. Hold the timing belt pulley with the **SST**.
2. Connect the **SST** and loosen the pulley lock bolt.
3. Remove the pulley lock bolt.

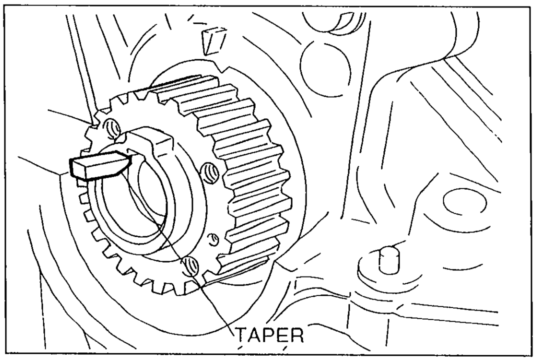


05U0BX-062

Timing belt pulley

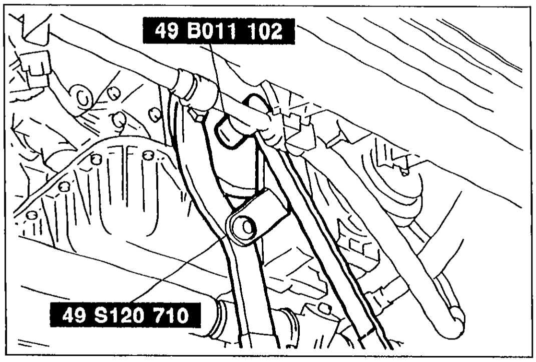
Note
- **If necessary, remove the pulley with a steering wheel puller (commercially available).**

1. Remove the timing belt pulley.
2. Remove the pulley Woodruff key.



05U0DX-027

Installation Note
Timing belt pulley
1. Install the timing belt pulley.
2. Install the pulley Woodruff key with the tapered side toward the oil pump body.



05U0DX-028

Pulley lock bolt
1. Install the pulley lock bolt.
2. Tighten the pulley lock bolt using the two **SST**.

Tightening torque:
108—118 N·m (11.0—12.0 m-kg, 80—87 ft-lb)

3. Remove the **SST**.

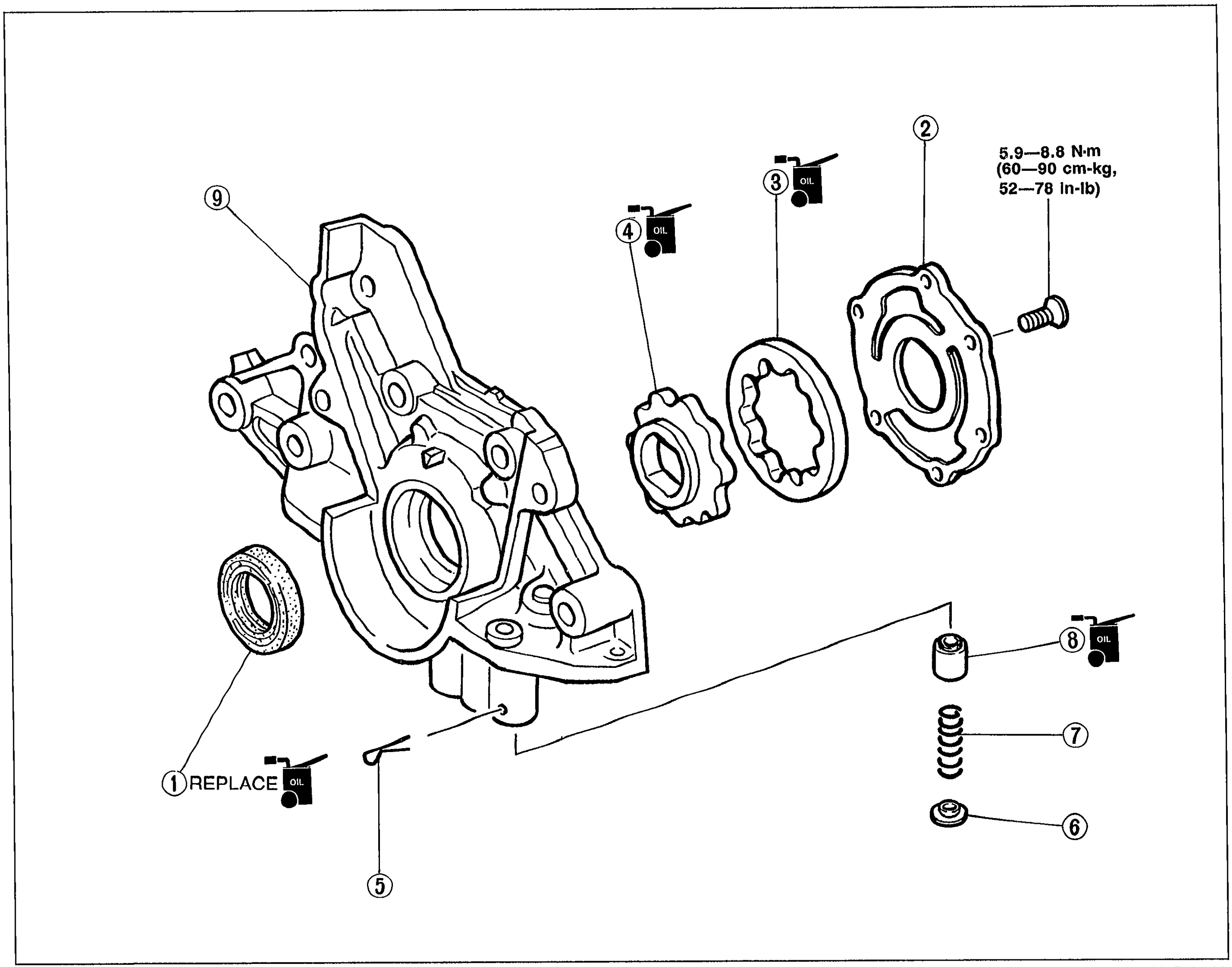
Steps After Installation

1. Install the under cover.
2. Fill with the specified amount and type of engine oil. (Refer to page D–5.)
3. Connect the negative battery cable.
4. Start the engine and check for leaks.
5. Check the oil level and add oil if necessary.

05U0DX-022

DISASSEMBLY / INSPECTION / ASSEMBLY

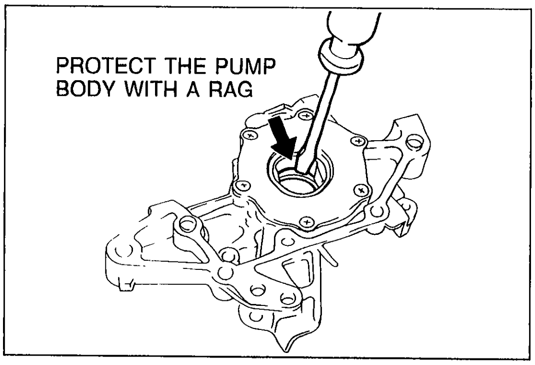
1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Assemble in the reverse order of disassembly, referring to **Assembly Note**.



05U0DX-029

1. Oil seal
   - Disassembly Note .... page D–12
   - Assembly Note .... page D–13
2. Pump cover
   - Inspect for distortion or damage
3. Outer rotor
4. Inner rotor
5. Roll pin
6. Spring seat
7. Pressure spring
   - Inspection .... page D–12
8. Control plunger
   - Inspect for wear or damage
9. Pump body
   - Inspect for distortion or damage

OIL PUMP

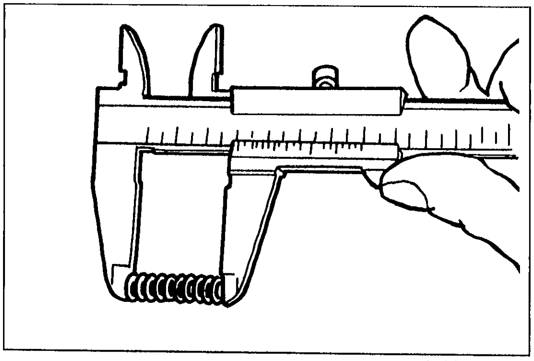


05U0DX-030

Disassembly Note

Oil seal

1. Remove the oil seal with a screwdriver protected with a rag.



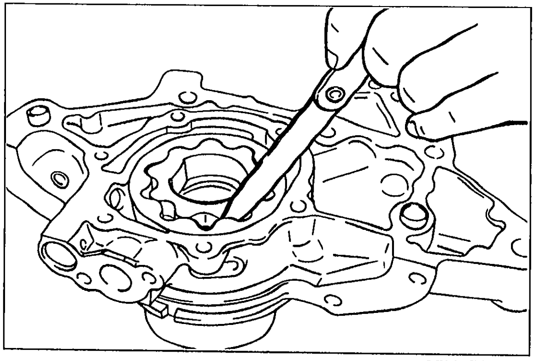
05U0DX-031

INSPECTION

Pressure Spring

1. Inspect the spring for weakness or breakage.
2. Measure the free length. Replace the spring if necessary.

Free length: 45.5mm (1.791 in)

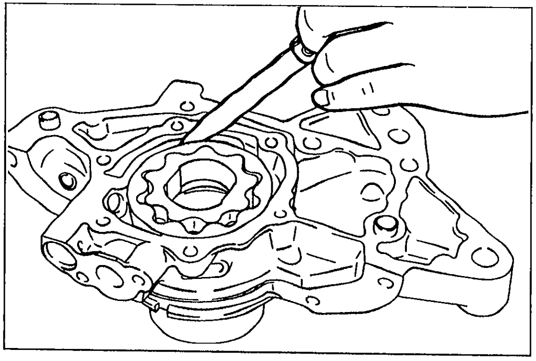


05U0DX-032

Rotor Clearance

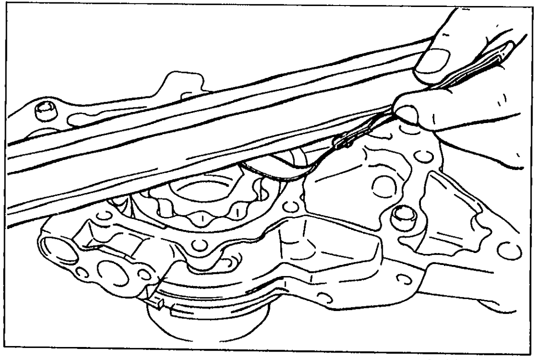
1. Measure the following clearances. Replace the rotor if necessary.

Tooth tip clearance: 0.20mm (0.0079 in) max.



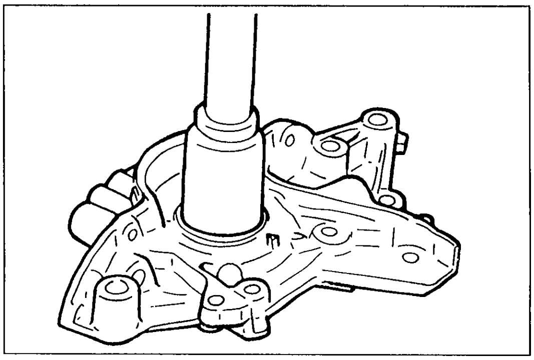
05U0DX-033

**Outer rotor to pump body clearance:
0.22mm (0.0087 in) max.**



05U0DX-034

Side clearance: 0.14mm (0.0055 in) max.



05U0DX-035

Assembly Note

Oil seal

1. Apply a small amount of clean engine oil to the lip of a new oil seal.
2. Push the oil seal slightly in by hand.

Caution

- **The oil seal must be pressed in until it is flush with the edge of the oil pump body.**

3. Press the oil seal in evenly with a suitable pipe.

Oil seal outer diameter: 44mm (1.73 in)

COOLING SYSTEM

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TROUBLESHOOTING GUIDE .... E– 3
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INSPECTION .... E– 4
REPLACEMENT .... E– 5
RADIATOR CAP .... E– 6
PREPARATION .... E– 6
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RADIATOR .... E– 7
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THERMOSTAT .... E– 8
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WATER PUMP .... E– 9
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SYSTEM CIRCUIT E–11
SYSTEM INSPECTION E–11
FAN MOTOR E–12
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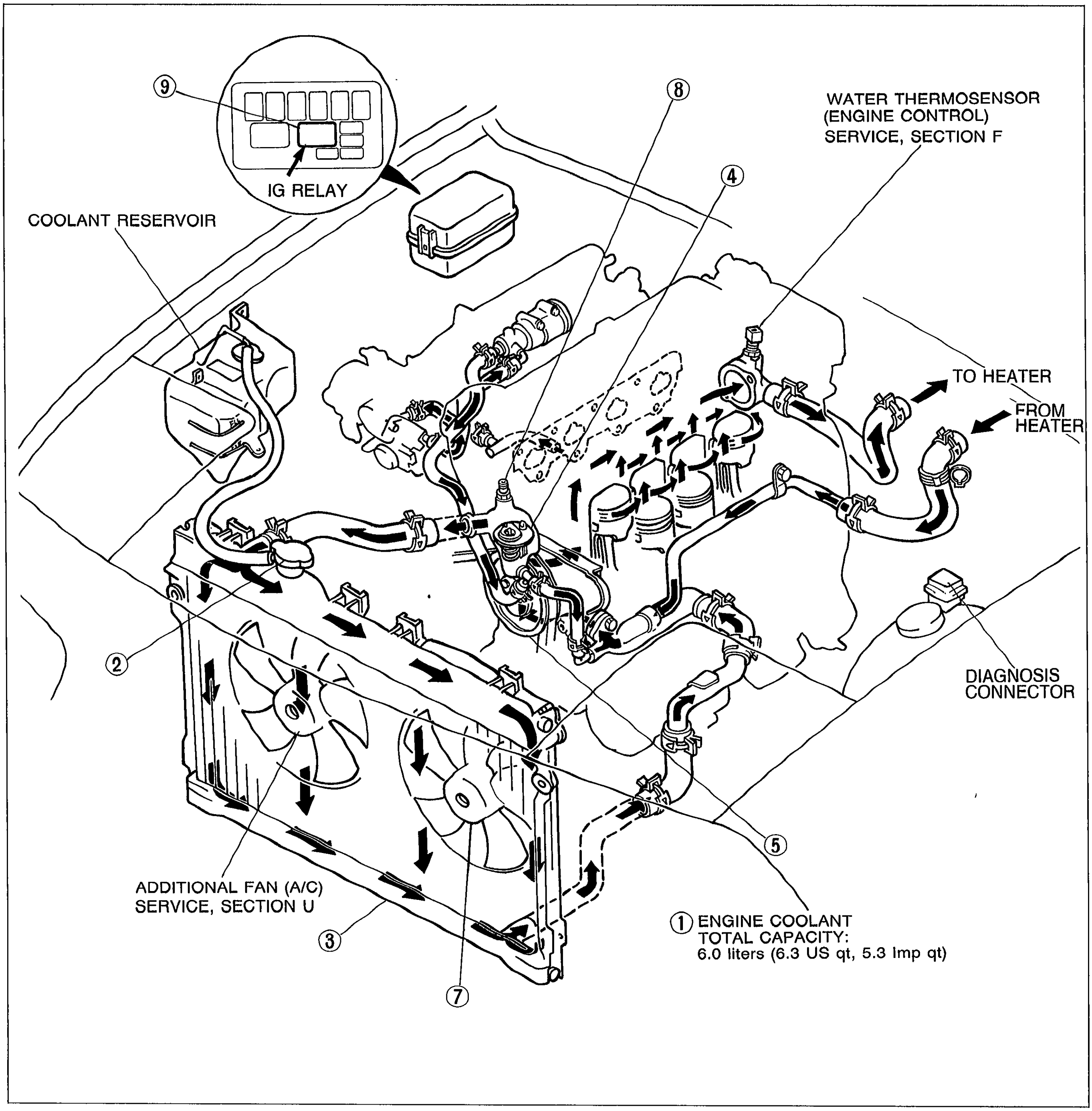
FAN RELAY E–14
INSPECTION E–14

05U0EX-001

INDEX


⑨
IG RELAY
COOLANT RESERVOIR
⑧
WATER THERMOSENSOR
(ENGINE CONTROL)
SERVICE, SECTION F
④
TO HEATER
FROM HEATER
②
DIAGNOSIS CONNECTOR
⑤
ADDITIONAL FAN (A/C)
SERVICE, SECTION U
③
① ENGINE COOLANT
TOTAL CAPACITY:
6.0 liters (6.3 US qt, 5.3 Imp qt)
⑦

05U0EX-002

1. Engine coolant
    - Inspection .... page E– 4
    - Replacement .... page E– 5
2. Radiator cap
    - Inspection .... page E– 6
3. Radiator
    - Removal / Inspection / Installation .... page E– 7
4. Thermostat
    - Removal / Inspection / Installation .... page E– 8
5. Water pump
    - Removal / Installation .... page E– 9
6. Electric cooling fan system
    - System circuit .... page E–11
    - System inspection .... page E–11
7. Fan motor
    - Inspection .... page E–12
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8. Water thermoswitch
    - Removal / Inspection / Installation .... page E–13
9. Fan relay
    - Inspection .... page E–14

OUTLINE

SPECIFICATIONS

Item		Engine	B6 DOHC
Cooling system			Water-cooled, forced circulation
Coolant capacity liters (US qt, Imp qt)			6.0 (6.3, 5.3)
Water pump	Type		Centrifugal
	Water seal		Unified mechanical seal
Thermostat	Type		Wax, two-stage
	Opening temperature °C (°F)		Main: 86.5—89.5 (188—193) Sub : 83.5—86.5 (182—188)
	Full-open temperature °C (°F)		100 (212)
	Full-open lift mm (in)		Main: 8.0 (0.31) min. Sub : 1.5 (0.06) min.
Radiator	Type		Corrugated fin
	Cap valve opening pressure kPa (kg/cm^2, psi)		74—103 (0.75—1.05, 11—15)
Cooling fan	Type		Electric
	Blade	Outer diameter mm (in)	320 (12.6)
		Number	5
	Motor	Capacity W-V	70-12
		Current A	5.3—6.5

05U0EX-003

TROUBLESHOOTING GUIDE

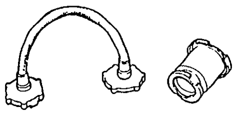
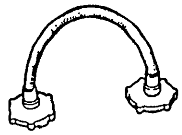
Problem	Possible Cause	Remedy	Page
Overheating	Coolant level insufficient Coolant leakage Radiator fins clogged Radiator cap malfunction Cooling fan malfunction Thermostat malfunction Water passage clogged Water pump malfunction	Add Repair Clean Replace Replace Replace Clean Replace	E– 5 — E– 7 E– 6 E–11 E– 8 E– 5 E– 9
Corrosion	Impurities in coolant	Replace	E– 5

05U0EX-004

ENGINE COOLANT

PREPARATION

SST

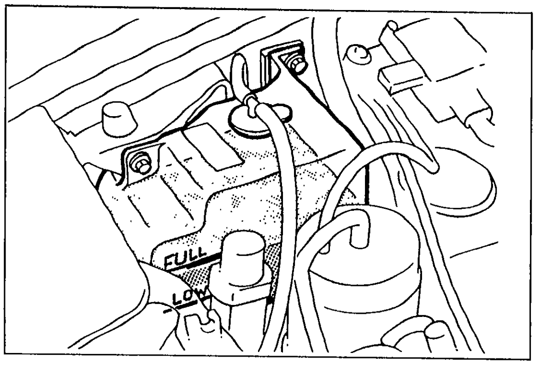
49 9200 145 Adapter set, radiator cap tester 	For inspection of cooling system pressure	49 9200 146 Adapter A (Part of 49 9200 145) 	For inspection of cooling system pressure

05U0EX-005

INSPECTION

Warning
- **Never remove the radiator cap while the engine is hot.**
- **Wrap a thick cloth around the cap when removing it.**
- **When removing the radiator cap, loosen it slowly to the first stop until the pressure in the radiator is released, and then remove it.**

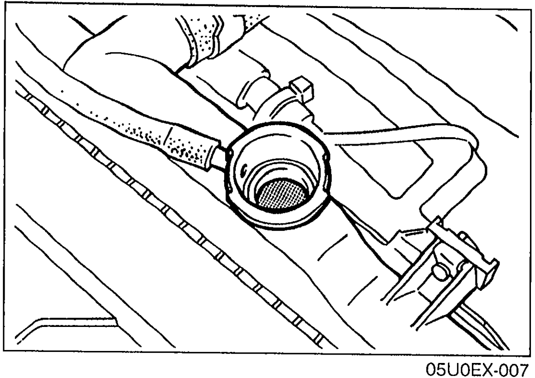
05U0EX-033



05U0EX-006

Coolant Level (Engine cold)

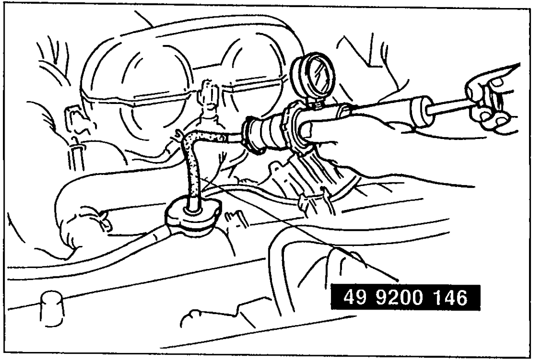
1. Verify that the coolant level is near the radiator filler neck.
2. Verify that the coolant level in the coolant reservoir is between the FULL and LOW marks. Add coolant if necessary.



05U0EX-007

Coolant Quality

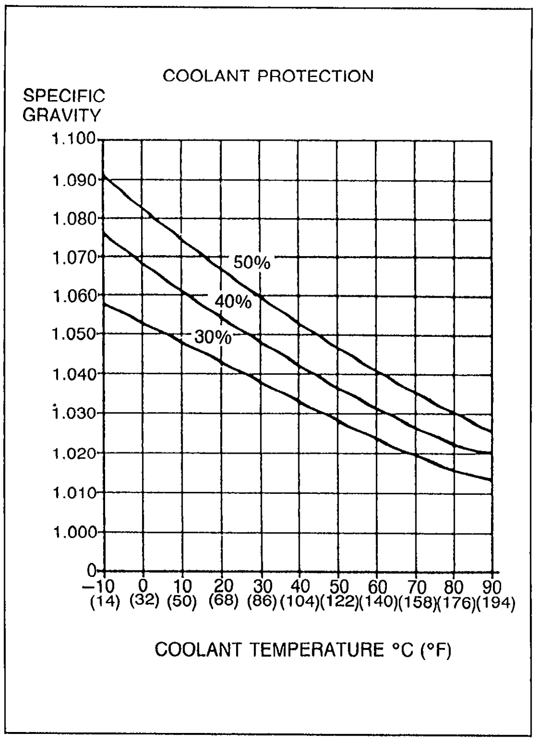
1. Verify that there is no buildup of rust or scale around the radiator cap or radiator filler neck.
2. Verify that coolant is free of oil.
   Replace the coolant if necessary.



05U0EX-008

Coolant Leakage

1. Connect a radiator tester (commercially available) and the **SST** to the radiator filler neck.
2. Apply **103 kPa (1.05 kg/cm^2, 15 psi)** pressure to the system.
3. Verify that the pressure is held.
   If not, check for coolant leakage.



05U0EX-009

Coolant Protection

Caution
- **Do not use alcohol- or methanol-based coolant.**
- **Use only soft (demineralized) water in the coolant mixture.**

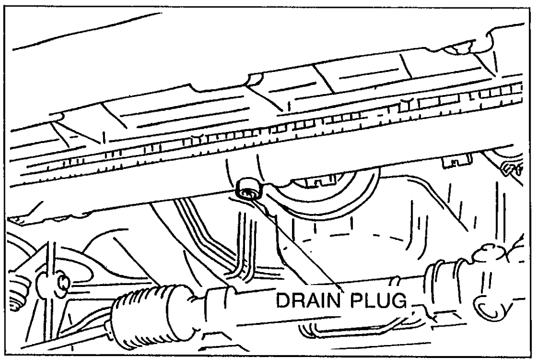
1. Measure the coolant temperature and specific gravity with a thermometer and a hydrometer.
2. Determine the coolant protection by referring to the graph shown.
   If the coolant protection is not proper, add water or coolant.

Antifreeze solution mixture percentage

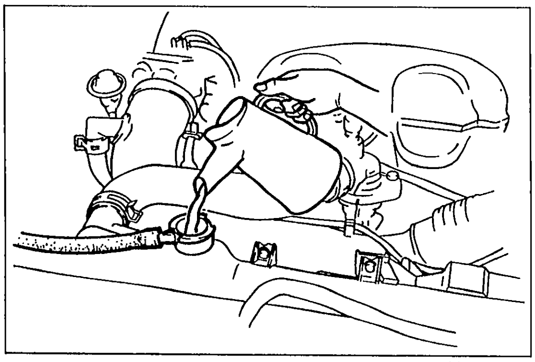
Coolant protection	Volume percentage		Gravity at 20°C (68°F)
	Water	Coolant	
Above –16°C (3°F)	65	35	1.054
Above –26°C (–15°F)	55	45	1.066
Above –40°C (–40°F)	45	55	1.078

05U0EX-010

REPLACEMENT



05U0EX-011



05U0EX-012

Warning
- **Never open the radiator cap while the engine is hot.**
- **Wrap a thick cloth around the cap when loosening.**
- **Use caution when draining hot coolant.**

Caution
- **Do not use alcohol- or methanol-based coolant.**
- **Use only soft (demineralized) water in the coolant mixture.**

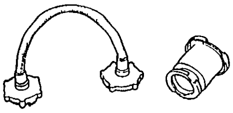
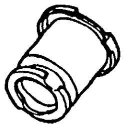
1. Remove the radiator cap and loosen the drain plug.
2. Drain the coolant into a suitable container.
3. Flush the cooling system with water until all traces of color are gone, then let the system drain completely.
4. Install the drain plug.
5. Fill with the proper amount and mixture of ethylene glycol-based coolant by referring to the table above.

Coolant capacity: 6.0 liters (6.3 US qt, 5.3 Imp qt)

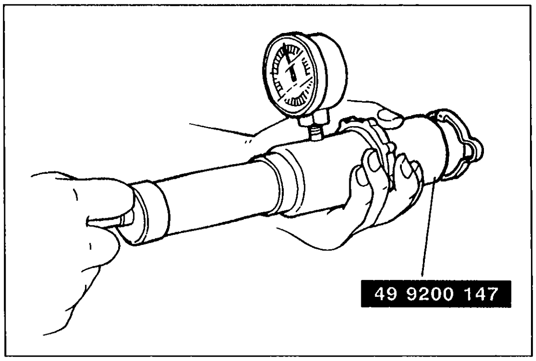
6. Run the engine, with the radiator cap removed, until the upper radiator hose is hot.
7. With the engine idling, add coolant to the radiator until it reaches the bottom of the filler neck.
8. Install the radiator cap.

RADIATOR CAP

PREPARATION
SST

49 9200 145 Adapter set, radiator cap tester 	For inspection of radiator cap valve	49 9200 147 Adapter B (Part of 49 9200 145) 	For inspection of radiator cap valve

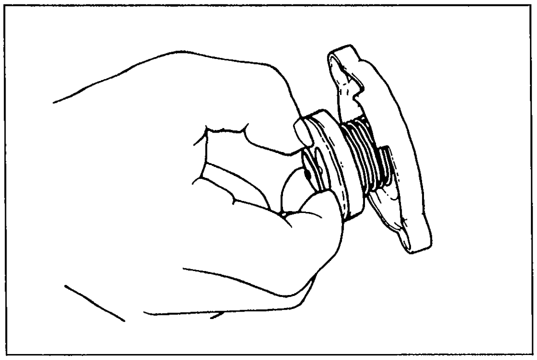
05U0EX-014



05U0EX-015

INSPECTION
Radiator Cap Valve

1. Remove foreign material (such as water residue) from between the radiator cap valve and the valve seat.
2. Attach the radiator cap to a radiator cap tester (commercially available) with the **SST**. Apply pressure gradually to **74—103 kPa (0.75—1.05 kg/cm^2, 11—15 psi)**.
3. Wait about **10 seconds**. Verify that the pressure has not decreased.



05U0EX-013

Negative Pressure Valve

1. Pull the negative pressure valve to open it. Verify that it closes completely when released.
2. Check for damage on the contact surfaces and for cracked or deformed seal packing.
3. Replace the radiator cap if necessary.

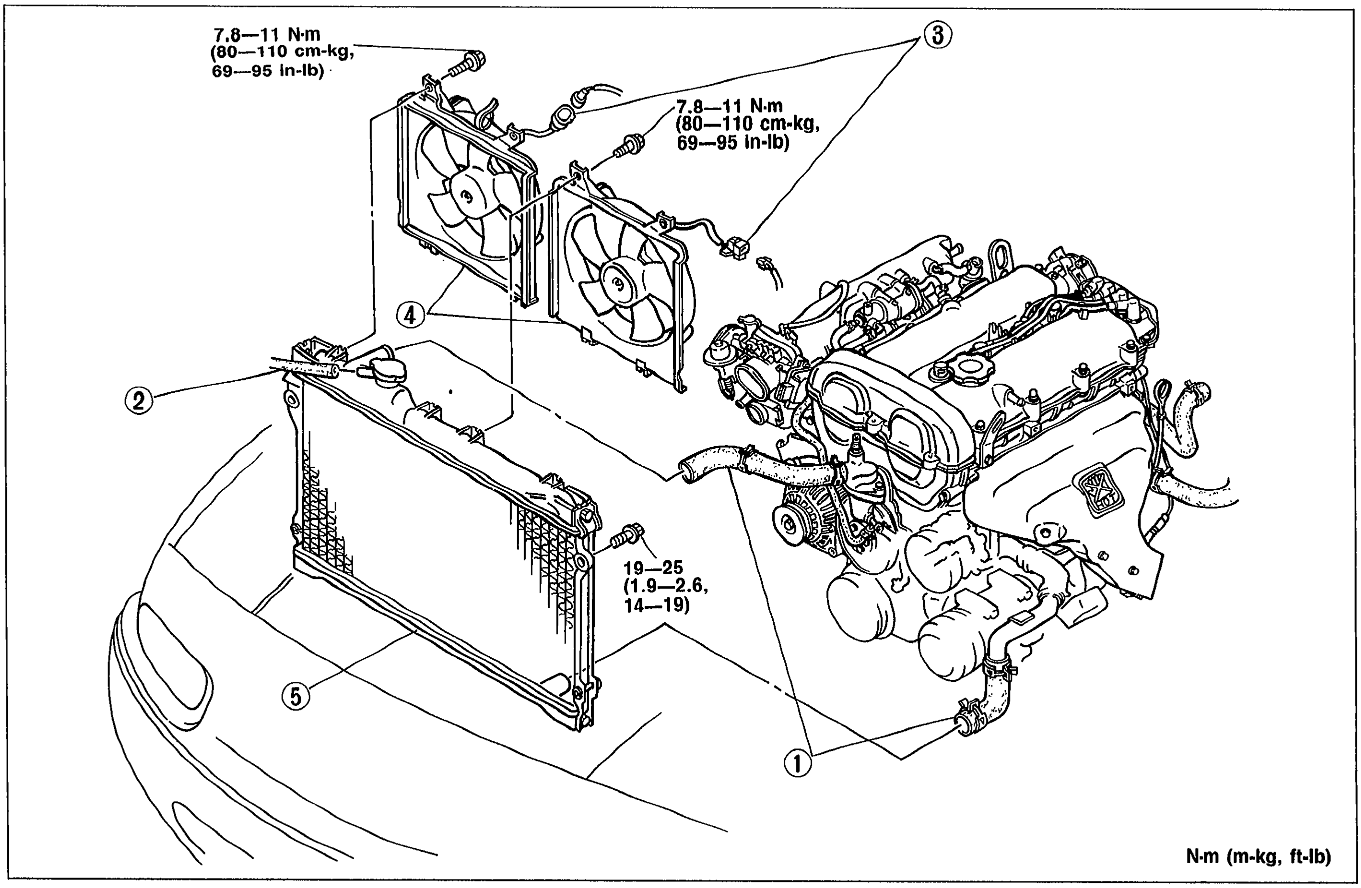
RADIATOR

REMOVAL / INSPECTION / INSTALLATION

Caution

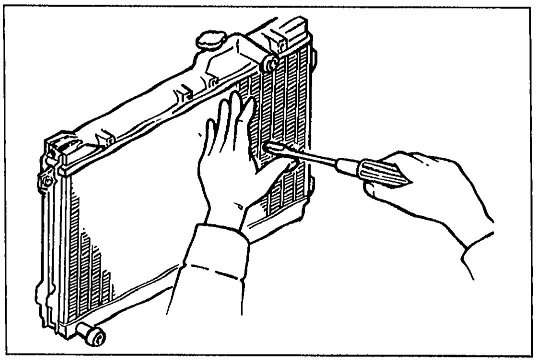
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**
- **Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.**

1. Disconnect the negative battery cable.
2. Drain the engine coolant.
3. Remove the under cover.
4. Remove in the order shown in the figure.
5. Install in the reverse order of removal.



05U0EX-016

1. Radiator hose
2. Coolant reservoir hose
3. Cooling fan connector
4. Cooling fan and additional fan
5. Radiator
   Inspection .... page E–7



05U0EX-017

INSPECTION

Check for the following and repair or replace as necessary.

1. Cracks, damage, and water leakage.
2. Bent fins (repair with a screwdriver).
3. Distorted or bent radiator inlet.

Steps After Installation

1. Install the under cover.
2. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E–5.)
3. Connect the negative battery cable.
4. Start the engine and check for leaks.

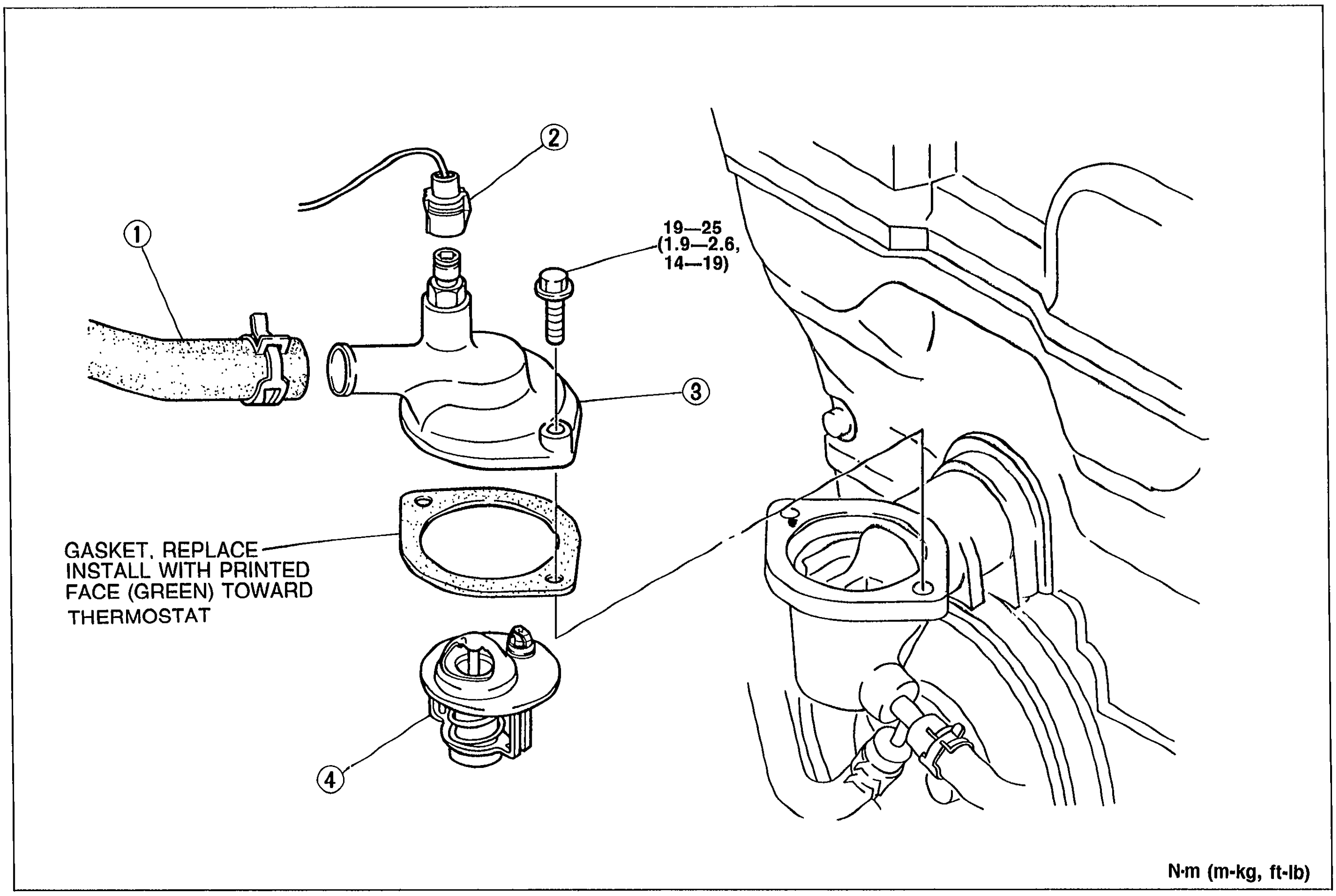
THERMOSTAT

REMOVAL / INSPECTION / INSTALLATION

Caution

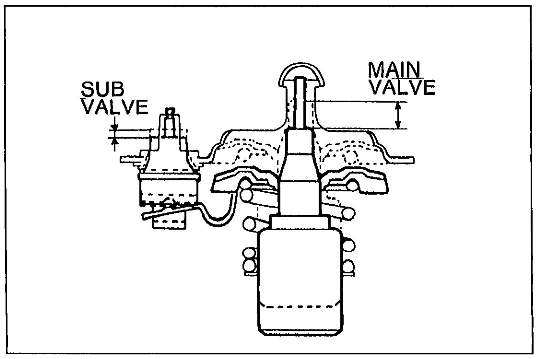
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**
- **Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.**

1. Disconnect the negative battery cable.
2. Drain the engine coolant.
3. Remove in the order shown in the figure.
4. Install in the reverse order of removal.


②
①
19—25
(1.9—2.6,
14—19)
③
GASKET, REPLACE
INSTALL WITH PRINTED
FACE (GREEN) TOWARD
THERMOSTAT
④
N·m (m-kg, ft-lb)

05U0EX-018

1. Radiator hose upper
2. Water thermoswitch connector
3. Thermostat cover
4. Thermostat
   Inspection .... page E–8


SUB
VALVE
MAIN
VALVE

05U0EX-019

INSPECTION

1. Visually check that the thermostat valve is airtight.
2. Place the thermostat and a thermometer in water.
3. Heat the water and check the following:

Initial-opening temperature
Main: 86.5—89.5°C (188—193°F)
Sub : 83.5—86.5°C (182—188°F)
Full-open temperature: 100°C (212°F)
Full-open lift
Main: 8.0mm (0.31 in) min.
Sub : 1.5mm (0.06 in) min.

Steps After Installation

1. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E–5.)
2. Connect the negative battery cable.
3. Start the engine and check for leaks.

05U0EX-020

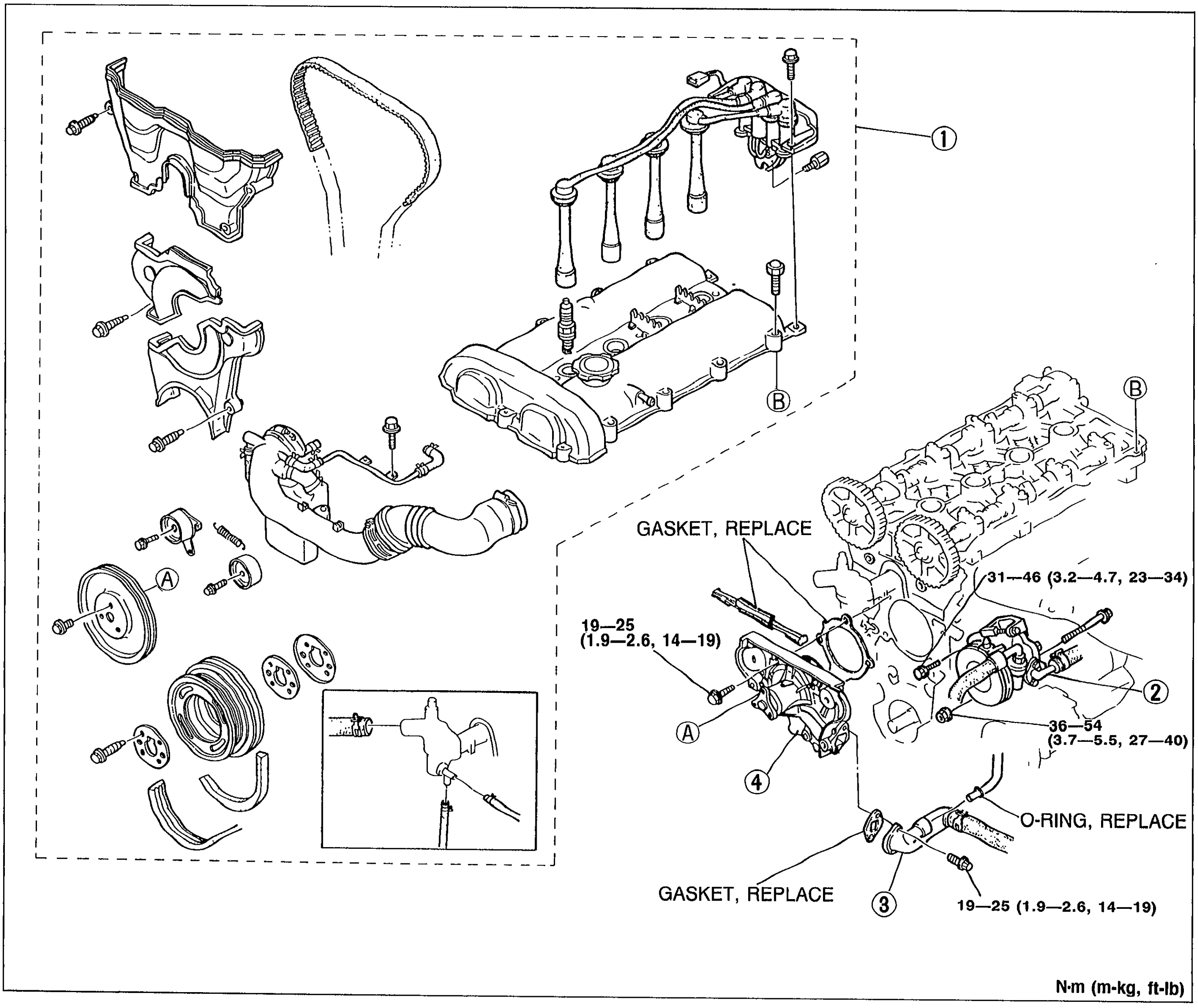
WATER PUMP

REMOVAL / INSTALLATION

Caution

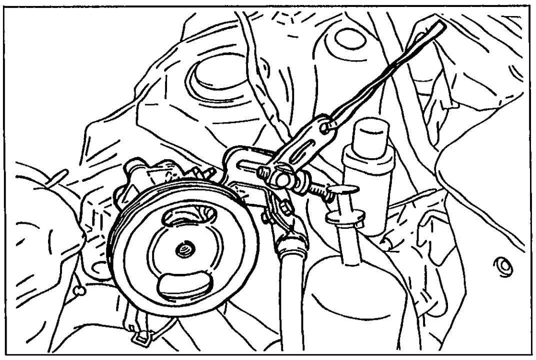
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**
- **Do not disassemble the water pump. If a problem is found, replace the pump as a unit.**

1. Disconnect the negative battery cable.
2. Drain the engine coolant.
3. Remove in the order shown in the figure, referring to **Removal Note**.
4. Install in the reverse order of removal.


①
Ⓑ
Ⓑ
GASKET, REPLACE
31—46 (3.2—4.7, 23—34)
19—25
(1.9—2.6, 14—19)
Ⓐ
Ⓐ
②
36—54
(3.7—5.5, 27—40)
④
O-RING, REPLACE
GASKET, REPLACE
③
19—25 (1.9—2.6, 14—19)
N·m (m-kg, ft-lb)

05U0EX-021

1. Timing belt
   Service.. page B–12
2. P/S oil pump
   Removal Note............................ page E–10
3. Water inlet pipe
4. Water pump
   Inspect for cracks, damaged mounting surface, bearing condition, and leakage



05U0EX-022

Removal Note
P/S oil pump

Caution
- **Do not damage the hoses.**

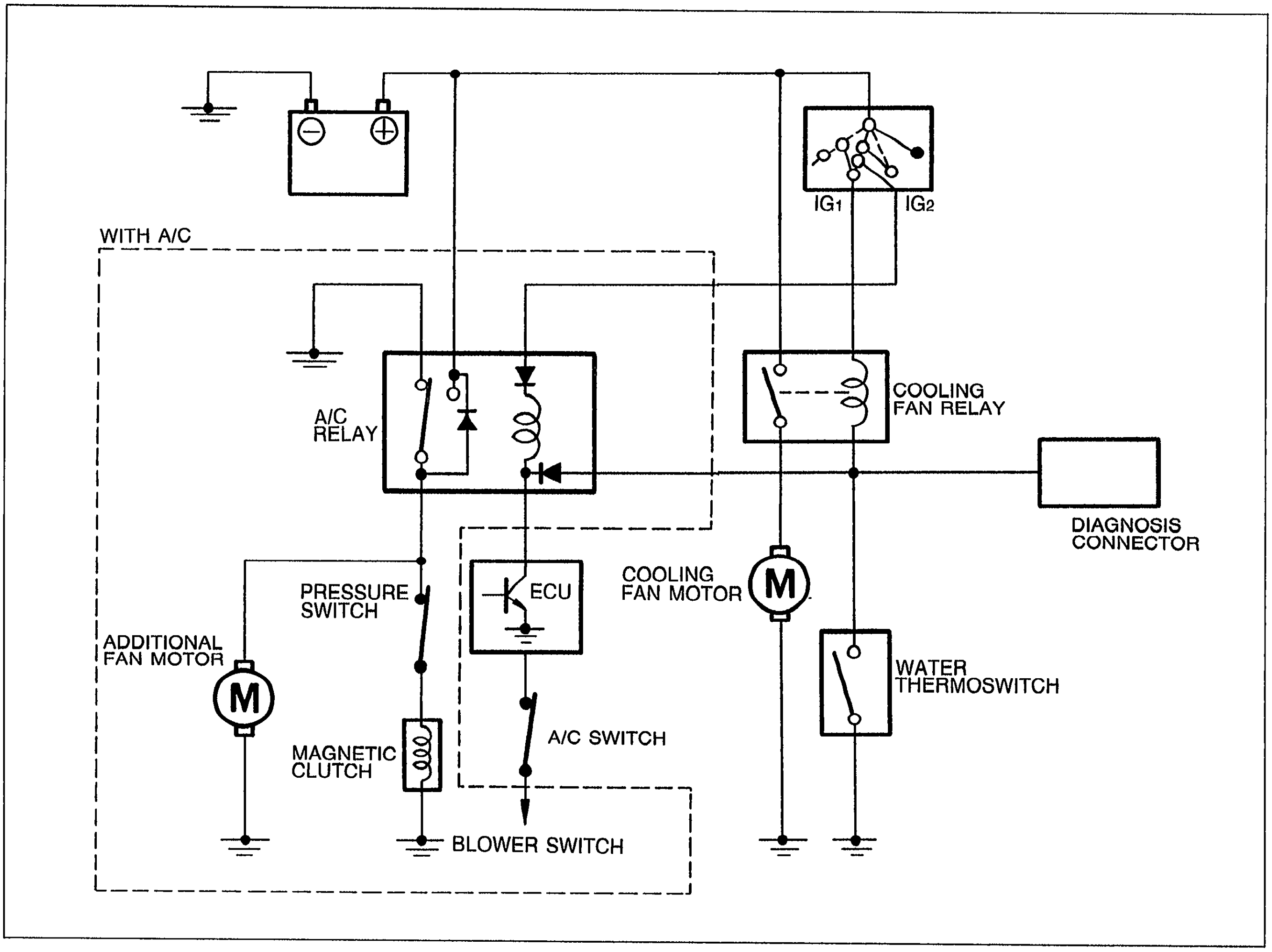
1. Remove the P/S oil pump with the hoses still connected.
2. Position the pump away from the engine and affix it with wire.

Steps After Installation
1. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E–5.)
2. Connect the negative battery cable.
3. Start the engine and check for leaks.

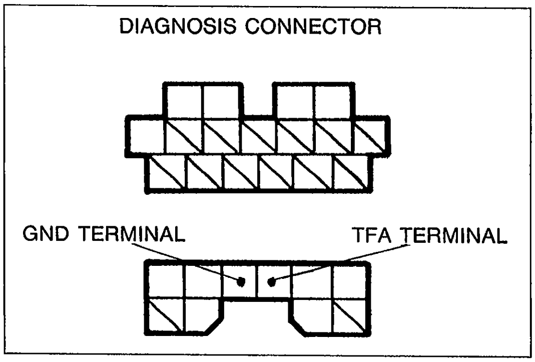
05U0EX-020

ELECTRIC COOLING FAN SYSTEM

SYSTEM CIRCUIT


IG1
IG2
WITH A/C
A/C RELAY
COOLING FAN RELAY
DIAGNOSIS CONNECTOR
PRESSURE SWITCH
ECU
COOLING FAN MOTOR
ADDITIONAL FAN MOTOR
WATER THERMOSWITCH
MAGNETIC CLUTCH
A/C SWITCH
BLOWER SWITCH

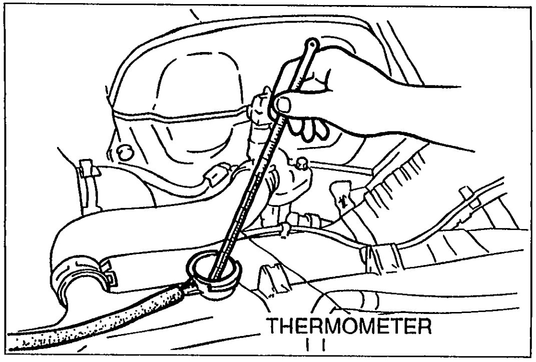
05U0EX-023


DIAGNOSIS CONNECTOR
GND TERMINAL
TFA TERMINAL

05U0EX-024

SYSTEM INSPECTION

1. Jump across the fan test (TFA) terminal and the ground (GND) terminal of the diagnosis connector.
2. Turn the ignition switch ON and verify that the fan operates. If the fan does not operate, inspect the cooling fan system components and wire harness.


THERMOMETER

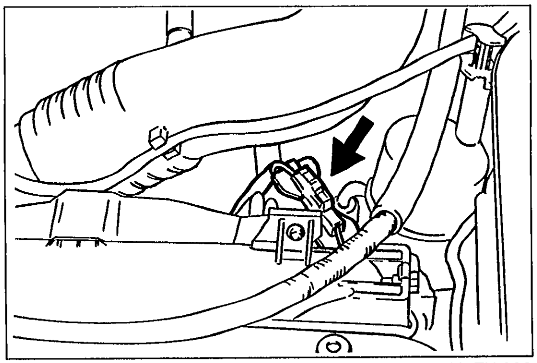
05U0EX-025

3. Remove the radiator cap and place a thermometer in the radiator filler neck.
4. Start the engine.
5. Verify that the fan operates when the coolant temperature reaches **approx. 97°C (207°F)**.
   If the fan does not operate, check the water thermoswitch. (Refer to page E–13.)

FAN MOTOR

INSPECTION

1. Check that the battery is fully charged.
2. Disconnect the fan motor connector.

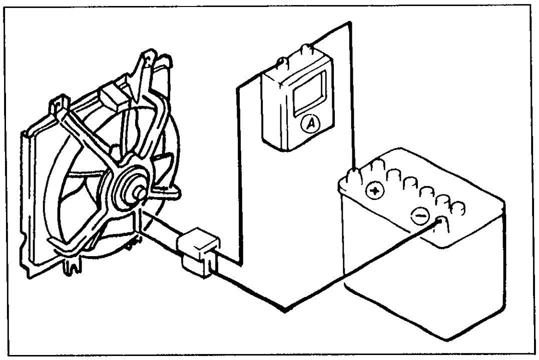


05U0EX-026

3. Connect the battery and an ammeter to the fan motor connector.
4. Verify that current is as specified.

Current: 5.3—6.5A

5. If current is not within specification and/or the fan does not turn smoothly, replace the fan motor.



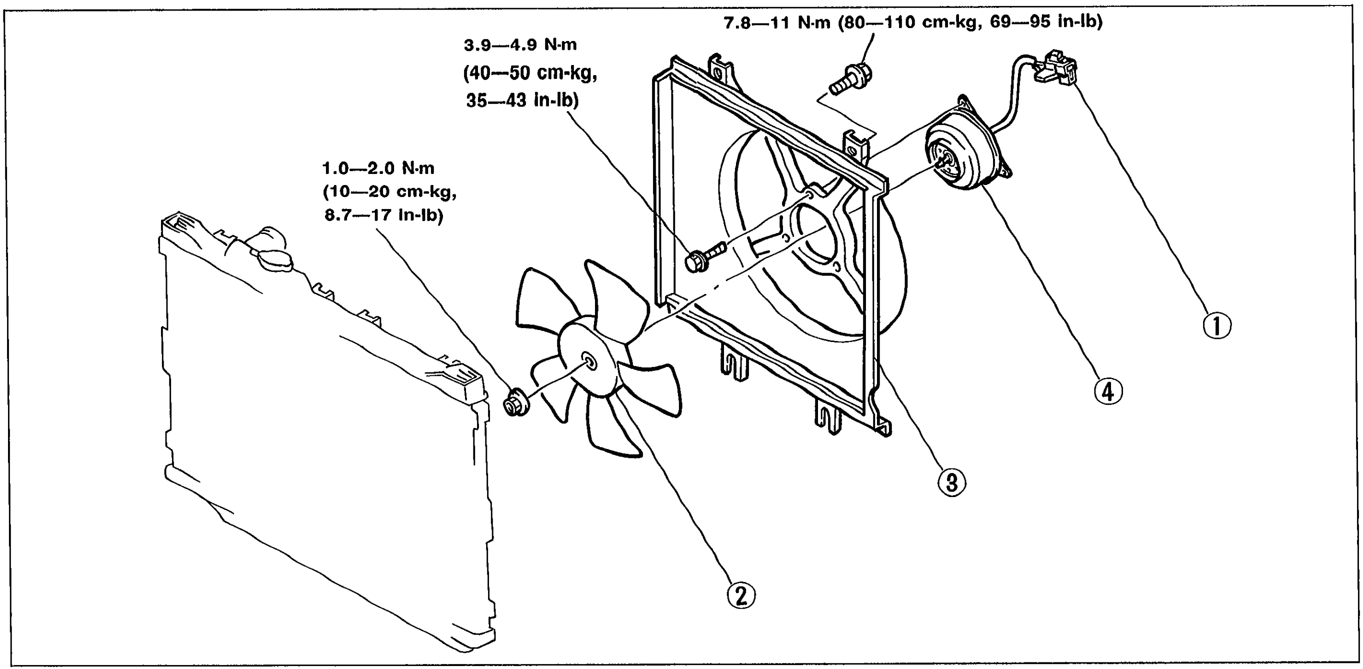
05U0EX-027

REPLACEMENT

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

1. Disconnect the negative battery cable.
2. Drain the engine coolant.
3. Remove in the order shown in the figure.
4. Install in the reverse order of removal.


7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
3.9—4.9 N·m
(40—50 cm-kg,
35—43 in-lb)
1.0—2.0 N·m
(10—20 cm-kg,
8.7—17 in-lb)
①
④
③
②

05U0EX-028

1. Cooling fan connector
2 Cooling fan
3. Radiator cowling
4. Fan motor

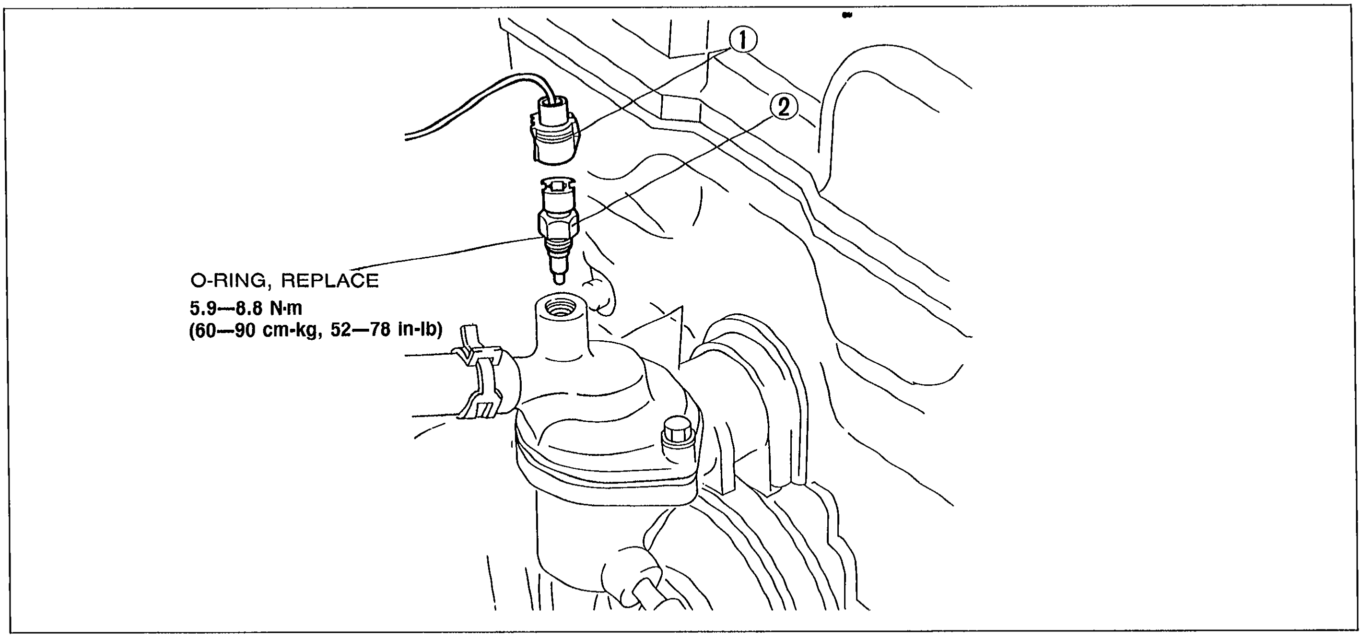
WATER THERMOSWITCH

REMOVAL / INSPECTION / INSTALLATION

Caution

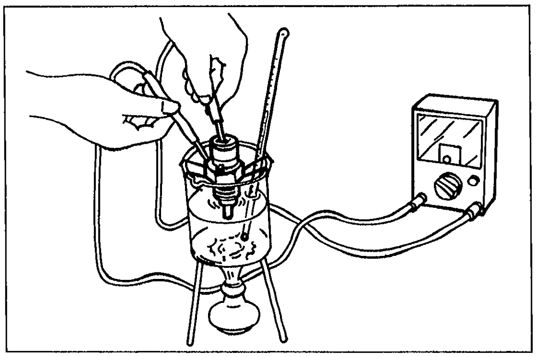
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

1. Disconnect the negative battery cable.
2. Remove in the order shown in the figure.
3. Install in the reverse order of removal, referring to **Installation Note**.



05U0EX-029

1. Water thermoswitch connector
2. Water thermoswitch
   Inspection .... page E–13
   Installation Note .... page E–13



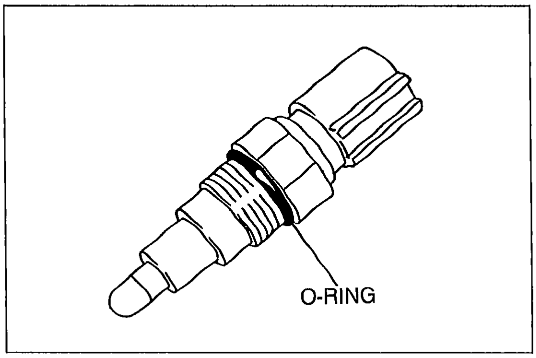
05U0EX-030

INSPECTION

1. Place the switch and a thermometer in water.
2. Heat the water gradually and check continuity of the switch with an ohmmeter.

Coolant temperature °C (°F)	Continuity
More than 97 (207)	Yes
Less than 90 (194)	No

3. If not as specified, replace the water thermoswitch.



05U0EX-031

Installation Note

Water thermoswitch

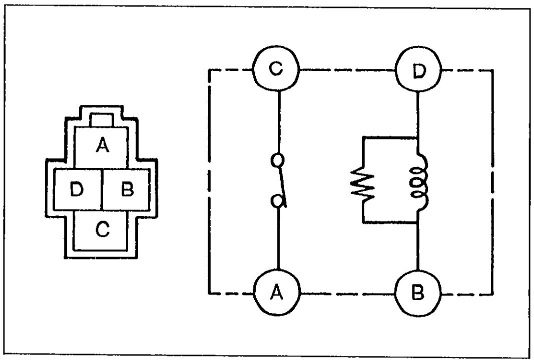
1. Apply a small amount of engine coolant to the new O-ring.

Caution

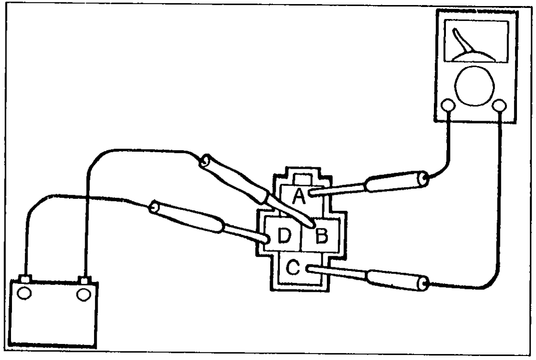
- **Do not use an impact wrench for installation.**

2. Install the water thermoswitch.

Tightening torque:
5.9—8.8 N·m (60—90 cm-kg, 52—78 in-lb)



05U0EX-032



05U0EX-034

FAN RELAY

INSPECTION

1. Check continuity as shown with an ohmmeter.

Terminal	Continuity
A—C	No
B—D	Yes

2. Apply 12V between terminals B and D.
   Check for continuity between terminals A and C.
3. If not as specified, replace the fan relay.

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05U0FX-001

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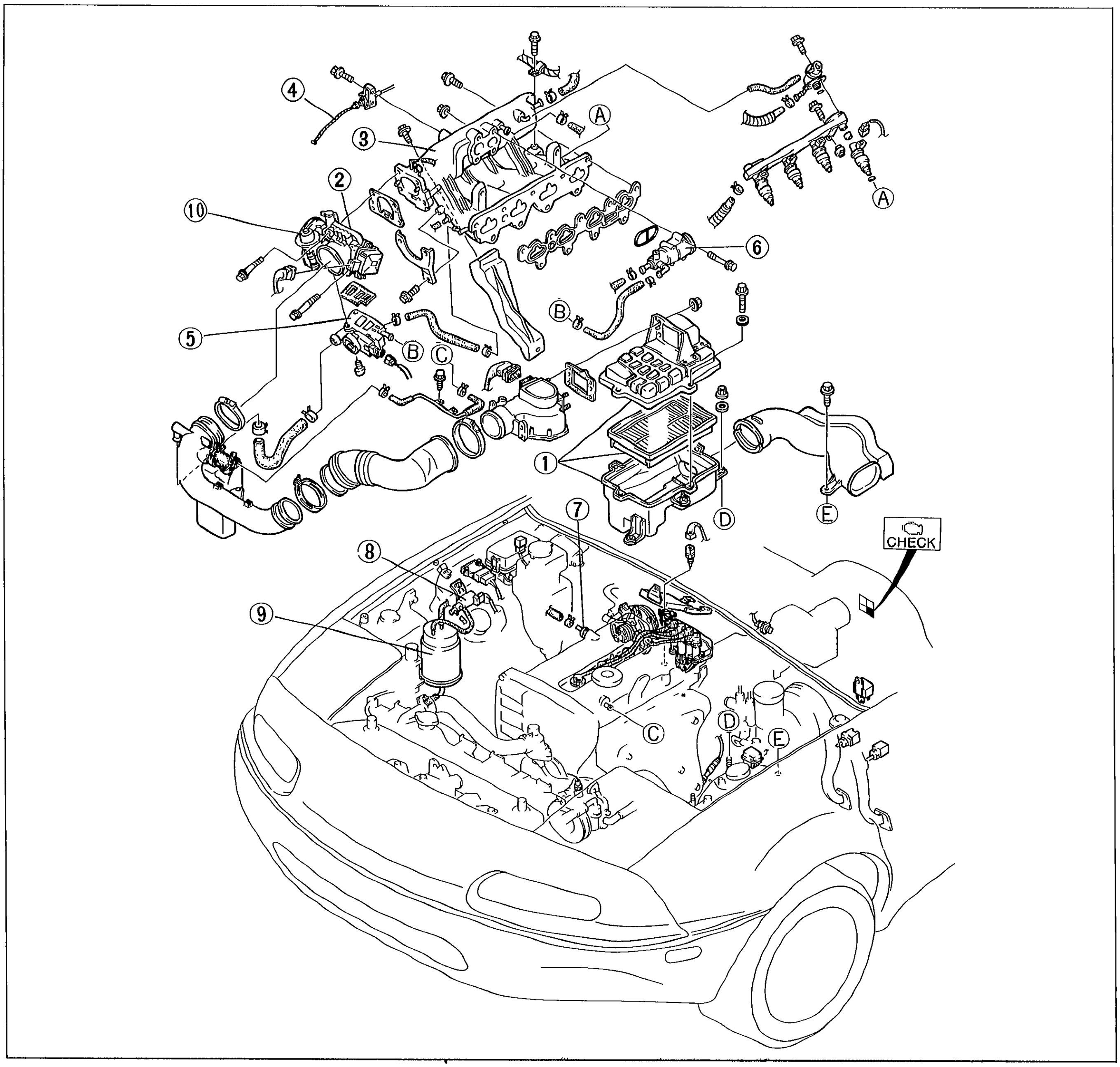

05U0FX-002

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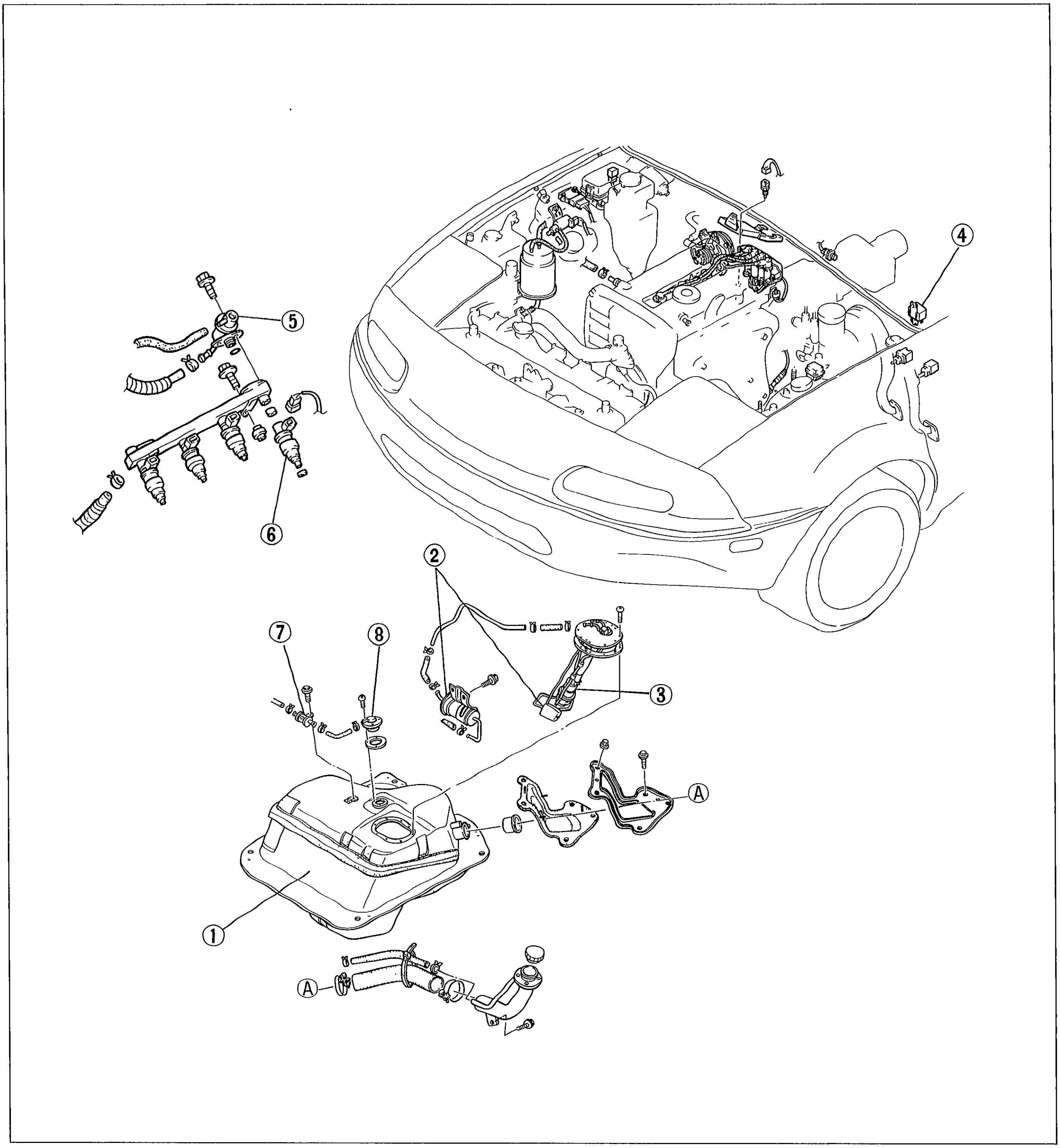

05U0FX-003

1. Fuel tank
    Removal / Inspection / Installation .... page F–104
2. Fuel filter
    Replacement .... page F–106
3. Fuel pump
    Inspection .... page F–107
    Replacement .... page F–108
4. Circuit opening relay
    Inspection .... page F–110
    Replacement .... page F–110
5. Pressure regulator
    Inspection .... page F–111
    Replacement .... page F–112
6. Injector
    Inspection .... page F–112
    Removal .... page F–112
    Installation .... page F–113
7. Two-way check valve
    Inspection .... page F–119
8. Fuel vapor valve
    Inspection .... page F–119

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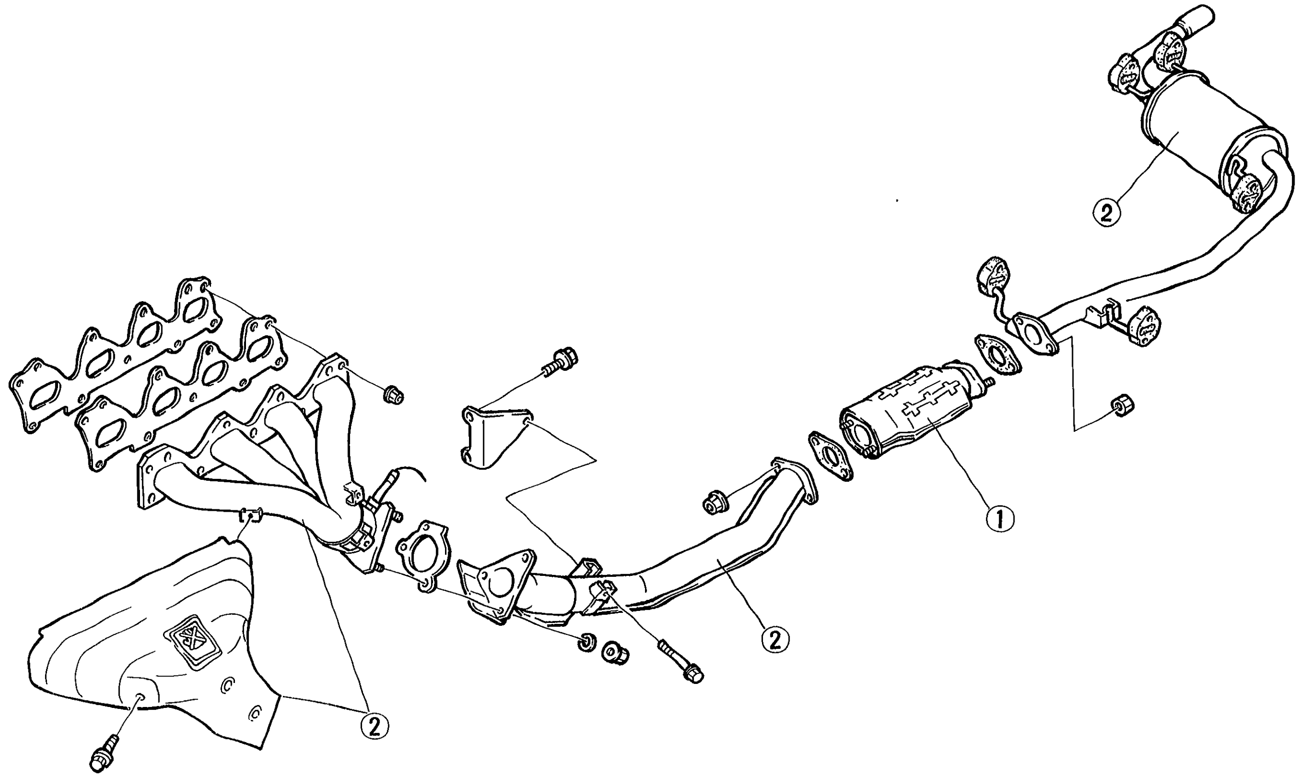

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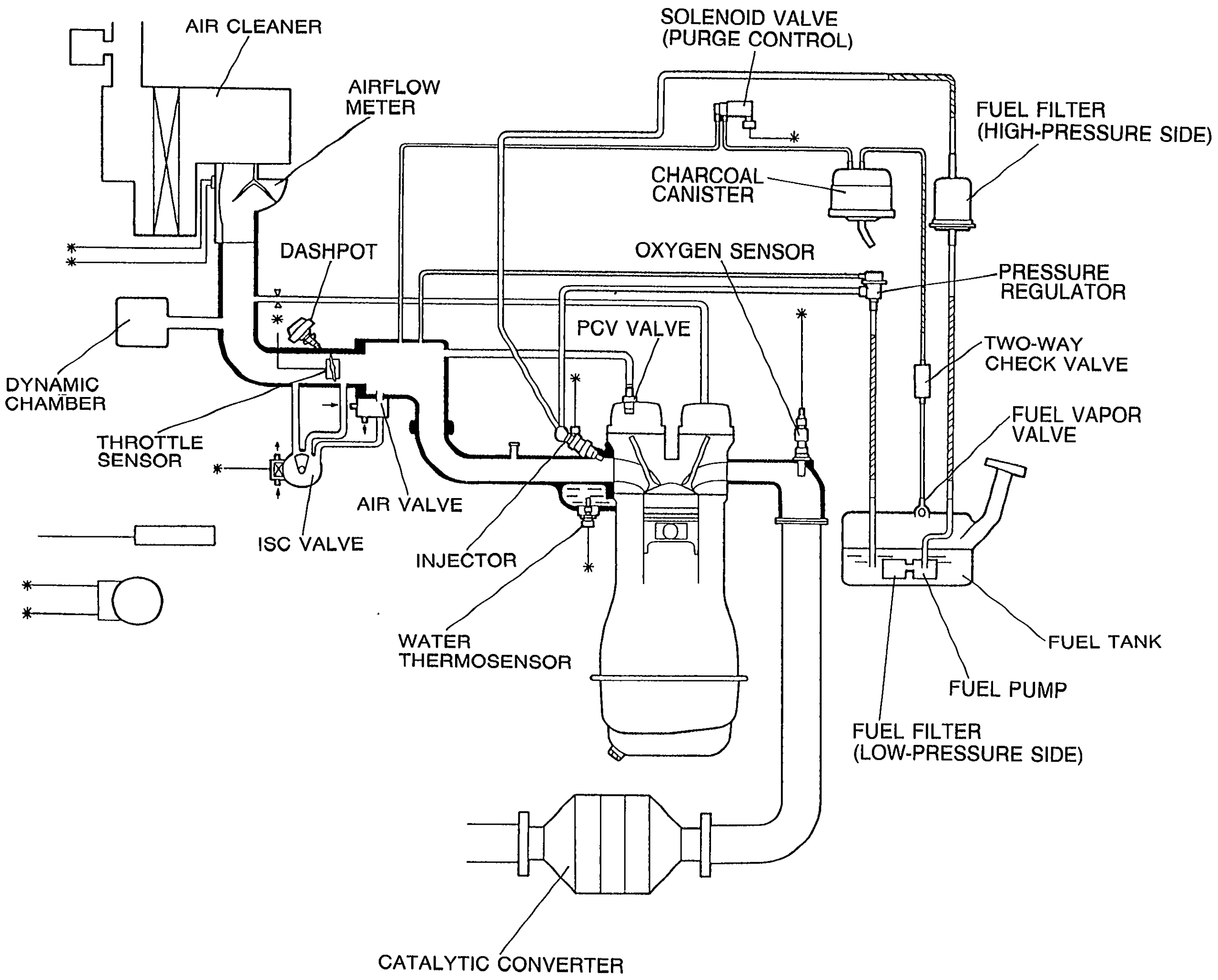
1. Catalytic converter
   Inspection / Replacement.......... page F–122
2. Exhaust components
   Removal / Inspection /
   Installation.............................. page F–115

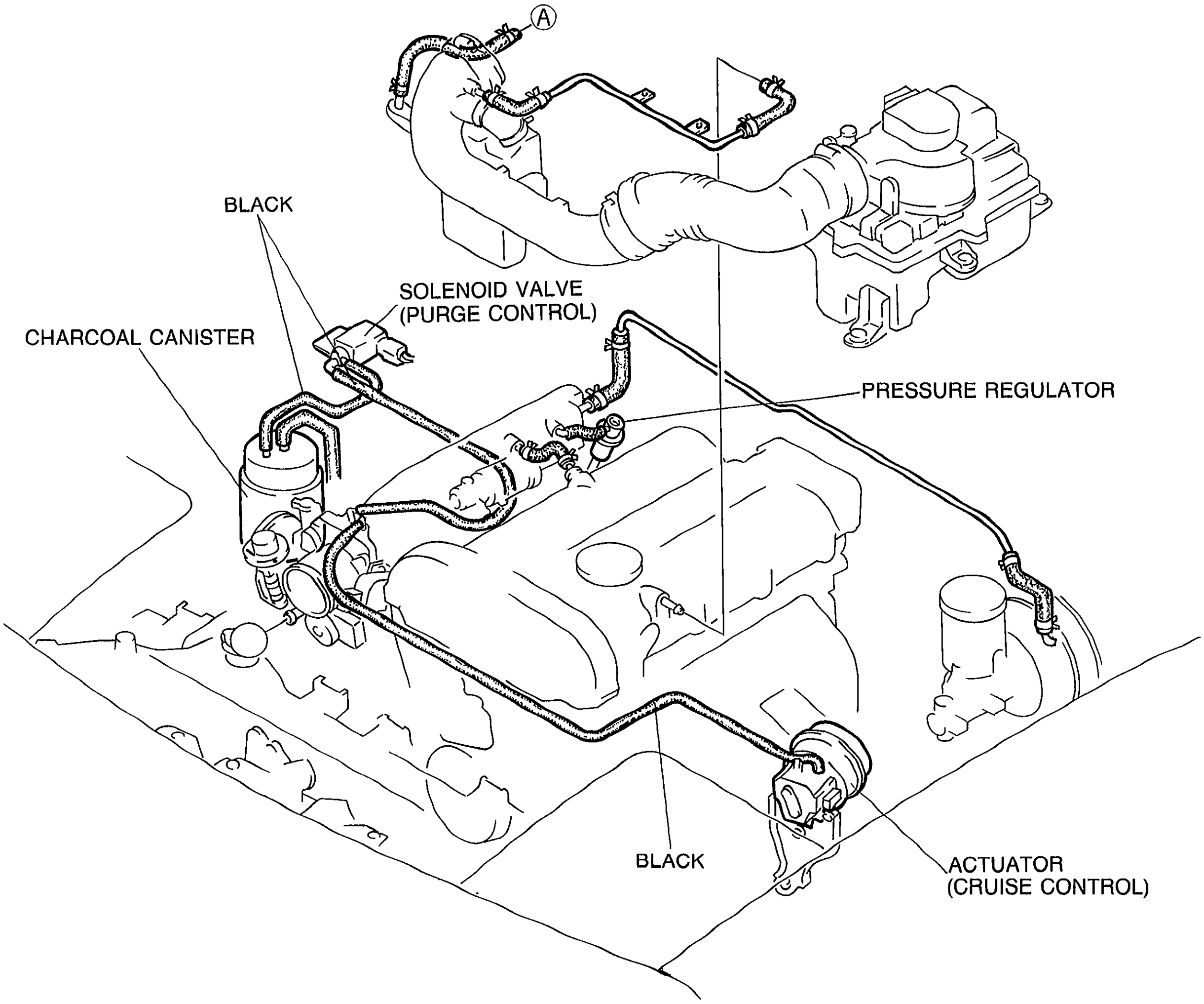
OUTLINE

SYSTEM DIAGRAM


AIR CLEANER
AIRFLOW METER
SOLENOID VALVE (PURGE CONTROL)
FUEL FILTER (HIGH-PRESSURE SIDE)
CHARCOAL CANISTER
DASHPOT
OXYGEN SENSOR
PRESSURE REGULATOR
PCV VALVE
TWO-WAY CHECK VALVE
FUEL VAPOR VALVE
DYNAMIC CHAMBER
THROTTLE SENSOR
AIR VALVE
ISC VALVE
INJECTOR
WATER THERMOSENSOR
FUEL TANK
FUEL PUMP
FUEL FILTER (LOW-PRESSURE SIDE)
CATALYTIC CONVERTER

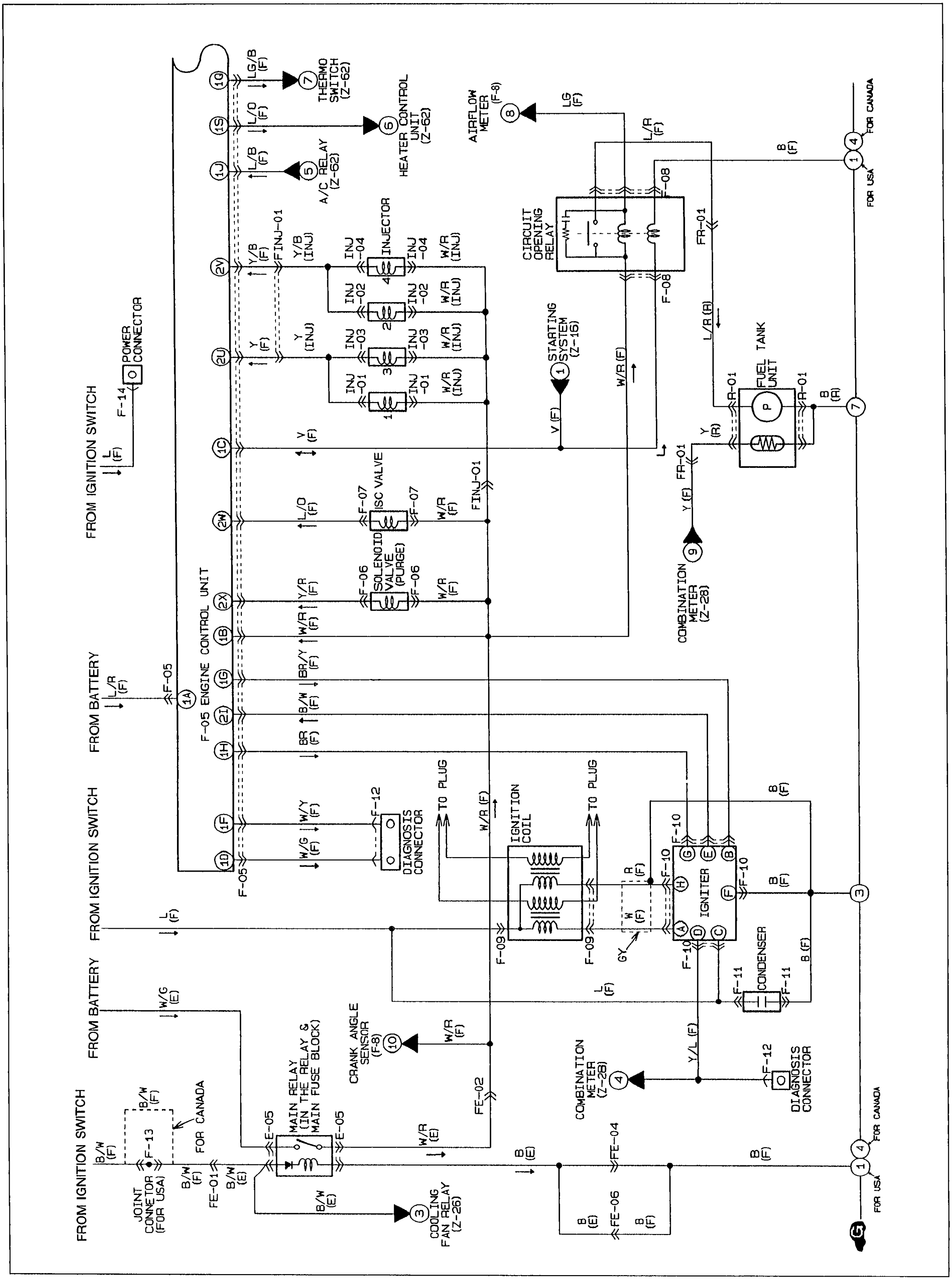
05U0FX-005

VACUUM HOSE ROUTING DIAGRAM

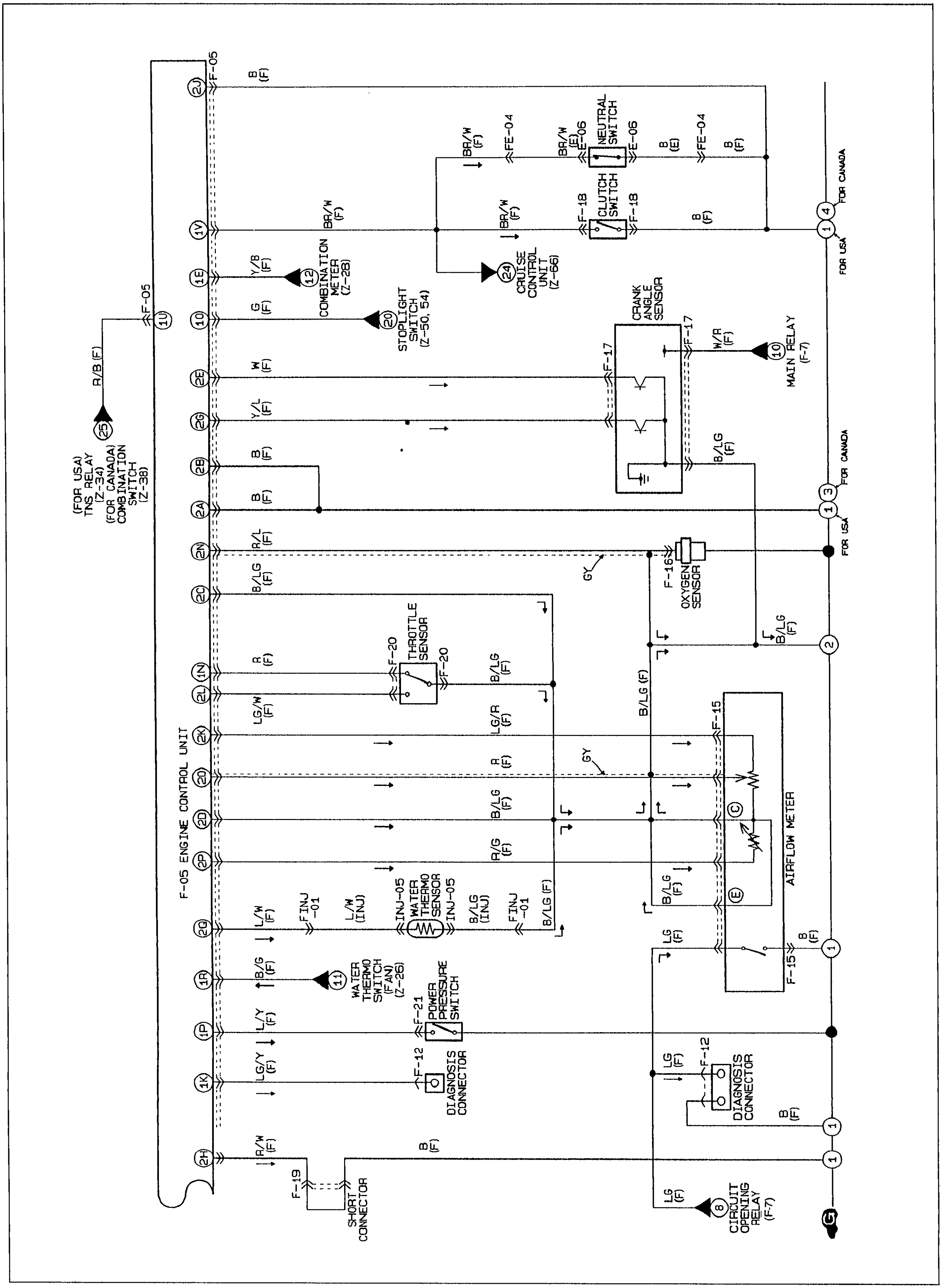

Ⓐ
BLACK
SOLENOID VALVE
(PURGE CONTROL)
CHARCOAL CANISTER
PRESSURE REGULATOR
BLACK
ACTUATOR
(CRUISE CONTROL)

05U0FX-006

WIRING DIAGRAM


FROM IGNITION SWITCH
FROM BATTERY
FROM IGNITION SWITCH
FROM BATTERY
FROM IGNITION SWITCH
F-05 ENGINE CONTROL UNIT
F-14 POWER CONNECTOR
1A 1D 1F 1H 2I 1G 1B 2X 2W 1C 2U 2V 1J 1S 1Q
7 THERMO SWITCH (Z-62)
6 HEATER CONTROL UNIT (Z-62)
5 A/C RELAY (Z-62)
8 AIRFLOW METER (F-8)
CIRCUIT OPENING RELAY
F-08
INJECTOR
INJ-01 INJ-02 INJ-03 INJ-04
FINJ-01
1 STARTING SYSTEM (Z-16)
FUEL TANK UNIT
R-01
FR-01
FOR CANADA
FOR USA
ISC VALVE
F-07
SOLENOID VALVE (PURGE)
F-06
9 COMBINATION METER (Z-28)
F-12 DIAGNOSIS CONNECTOR
TO PLUG
TO PLUG
IGNITION COIL
F-09
IGNITER
F-10
CONDENSER
F-11
4 COMBINATION METER (Z-28)
F-12 DIAGNOSIS CONNECTOR
10 CRANK ANGLE SENSOR (F-8)
FE-02
MAIN RELAY (IN THE RELAY & MAIN FUSE BLOCK)
E-05
3 COOLING FAN RELAY (Z-26)
F-13
FOR CANADA
JOINT CONNETOR (FOR USA)
FE-01
FE-04
FE-06
G

OUTLINE


F-05 ENGINE CONTROL UNIT
F-05
2J
B (F)
1Y
BR/W (F)
1E
Y/B (F)
12 COMBINATION METER (Z-28)
1O
G (F)
20 STOPLIGHT SWITCH (Z-50, 54)
1U
R/B (F)
25 (FOR USA) TNS RELAY (Z-34) (FOR CANADA) COMBINATION SWITCH (Z-38)
2E
W (F)
2G
Y/L (F)
2B
B (F)
2A
B (F)
2N
R/L (F)
GY
2C
B/LG (F)
1N
R (F)
2L
LG/W (F)
F-20
THROTTLE SENSOR
B/LG (F)
2K
LG/R (F)
2O
R (F)
2D
B/LG (F)
2P
R/G (F)
2Q
L/W (F)
FINJ -01
L/W (INJ)
INJ-05
WATER THERMO SENSOR
B/LG (INJ)
B/LG (F)
1R
B/G (F)
11 WATER THERMO SWITCH (FAN) (Z-26)
1P
L/Y (F)
F-21
POWER PRESSURE SWITCH
1K
LG/Y (F)
F-12
DIAGNOSIS CONNECTOR
2H
R/W (F)
F-19
SHORT CONNECTOR
BR/W (F)
FE-04
BR/W (E)
E-06
NEUTRAL SWITCH
B (E)
F-18
CLUTCH SWITCH
24 CRUISE CONTROL UNIT (Z-66)
FOR CANADA
FOR USA
CRANK ANGLE SENSOR
F-17
W/R (F)
10 MAIN RELAY (F-7)
B/LG (F)
F-16
OXYGEN SENSOR
F-15
AIRFLOW METER
C
E
LG (F)
8 CIRCUIT OPENING RELAY (F-7)
G
1
2
3
4

05U0FX-007

SPECIFICATIONS

Item			Specification
Idle speed rpm			850 ± 50*
Ignition timing BTDC			10° ± 1°*
Throttle body			
Type			Horizontal draft
Throat diameter mm (in)			55 (2.2)
Fuel pump			
Type			Impeller (in-tank)
Output pressure kPa (kg/cm², psi)			441—589 (4.5—6.0, 64—85)
Fuel filter			
Type	Low-pressure side		Nylon element
	High-pressure side		Paper element
Pressure regulator			
Type			Diaphragm
Regulating pressure kPa (kg/cm², psi)			265—314 (2.7—3.2, 38—46)
Injector			
Type			High-ohmic
Type of drive			Voltage
Resistance Ω			12—16 (at 20°C, 68°F)
ISC valve			
Solenoid resistance Ω			11—13 (at 20°C, 68°F)
Air valve			
Opening temperature			Below 40°C (104°F)
Solenoid valve (Purge control)			
Solenoid resistance Ω			23—27 (at 20°C, 68°F)
Crank angle sensor			
Type			Optical pickup
Airflow meter			
Resistance Ω	E_2↔Vs	Fully closed	200—600
		Fully open	20—1,000
	E_2↔Vc		200—400
	E_2↔THAA (Intake air thermosensor)	-20°C (-4°F)	13,600—18,400
		20°C (68°F)	2,210—26,900
		60°C (140°F)	493—667
	E_1↔Fc	Fully closed	∞
		Fully open	0
Water thermosensor			
Resistance kΩ		-20°C (-4°F)	14.6—17.8
		20°C (68°F)	2.2—2.7
		80°C (179°F)	0.29—0.35
Circuit opening relay			
Resistance Ω		STA—E_1	21—43
		B—Fc	109—226
		B—Fp	∞
Fuel tank			
Capacity liters (US gal, Imp gal)			45 (11.9, 9.9)
Air cleaner			
Element type			Oil permeated
Accelerator cable			
Free play mm (in)			1—3 (0.039—0.118)
Fuel.			
Specification			Unleaded regular (RON 87 or higher)

*... With System Selector (49 B019 9A0) test switch at SELF TEST.

05U0FX-008

COMPONENT DESCRIPTIONS

Component	Function	Remark
Air cleaner	Filters air entering throttle body	
Airflow meter	Detects amount of intake air; sends signal to engine control unit	• Intake air thermosensor and fuel pump switch included • Use Vref (5 volt) as power source
Air valve	When cold, supplies bypass air into dynamic chamber	• Engine speed increased to shorten warm-up period • Thermowax type
Atmospheric pressure sensor	Detects atmospheric pressure; sends signal to engine control unit	Built-in ECU
Catalytic converter	Reduces HC, CO, and NOx by chemical reaction	Monolith type
Charcoal canister	Stores gas tank fumes while engine stopped	
Circuit opening relay	Voltage for fuel pump while engine running	
Clutch switch (M/T)	Detects in-gear condition; sends signal to engine control unit	Switch OFF when clutch pedal released
Diagnosis connector	Concentrated service connector Concentrated terminals are: 1. EGI self-diagnosis terminal 2. Initial set terminal 3. Fuel pump check terminal 4. Cooling fan check terminal	21-pin (Black)
Crank angle sensor **G-signal** **Ne-signal**	Detects No.1 cylinder TDC; sends signal to engine control unit Detects crank angle at 180° intervals; sends signal to control unit	
Dynamic chamber	Interconnects all cylinders	
Engine control unit (ECU)	**Detects the following:** 1. A/C operation 2. Air/fuel ratio (Oxygen concentration) 3. Atmospheric pressure 4. Braking signal 5. Cranking signal 6. E/L operation 7. Engine coolant temperature 8. Engine speed 9. In-gear condition 10. Intake air amount 11. Intake air temperature 12. No.1 piston TDC 13. P/S operation 14. Initial set signal 15. Throttle valve fully closed 16. Throttle valve opening amount **Controls operation of the following:** 1. A/C (Cut off) 2. Fail-safe function 3. Fuel injection system 4. Idle speed control 5. Ignition timing control system 6. Monitor function 7. Purge control system	1. A/C switch 2. Oxygen sensor 3. Atmospheric pressure sensor 4. Stoplight switch 5. Ignition switch (START position) 6. Cooling fan relay Light and turn relay Blower motor switch 7. Water thermosensor 8. Crank angle sensor (Ne-signal) 9. Neutral and clutch switches 10. Airflow meter 11. Intake air thermosensor 12. Crank angle sensor (G-signal) 13. P/S pressure switch 14. Diagnosis connector 15. Throttle sensor (IDL signal) 16. Throttle sensor (POW signal) 1. A/C relay 2. Self-diagnosis checker and MIL 3. Injector 4. ISC valve 5. Igniter 6. Monitor lamp (Self-diagnosis checker) 7. Solenoid valve (Purge control)

Fuel vapor valve	Prevents fuel from entering canister during vehicle roll over	
Fuel filter	Filters particles from fuel	
Fuel pump	Provides fuel to injectors	• Operates while engine running • Installed in fuel tank
Igniter	Receives spark signal from engine control unit and generates high voltage in ignition coil Detects high voltage ignition; sends substitute ignition signal to engine control unit	
Ignition switch (START position)	Sends engine cranking signal to engine control unit	
Injector	Injects fuel into intake port	• Controlled by signals from engine control unit • High-ohmic injector • Single port injector nozzle
Intake air thermosensor	Detects intake air temperature; sends signal to engine control unit	Installed in airflow meter
ISC valve	Controls bypass air amount	• Controlled by duty signal from engine control unit • Controls idle-up
Solenoid valve (Purge control)	Controls evaporative fumes from canister to intake manifold	• Controlled by duty signal from engine control unit
Main relay	Supplies electric current to injectors, engine control unit, etc.	
MIL (Malfunction indicator lamp)	Lamp illuminates when input device malfunctions	(TEN) terminal of diagnosis connector
	Lamp flashes to indicate malfunction code number. of input and output devices	(TEN) terminal of diagnosis connector
Neutral switch	Detects in-gear condition; sends signal to engine control unit	Switch ON when in neutral
Oxygen sensor	Detects oxygen concentration; sends signal to engine control unit	Zirconia ceramic and platinum coating
PCV valve	Controls blowby gas amount introduced into engine	
P/S pressure switch	Detects P/S operation; sends signal to engine control unit	P/S: ON when steering wheel turned
Pressure regulator	Adjusts fuel pressure supplied to injectors	
Resonance chamber	Improves mid range torque characteristics	
Stoplight switch	Detects braking operation (deceleration); sends signal to engine control unit	
Throttle body	Controls intake air quantity	Integrated throttle sensor, ISC valve, and dashpot
Throttle sensor IDL signal	Detects position of the throttle valve fully closed; sends signal to engine control unit	
Throttle sensor POW signal	Detects the throttle valve opening at a preset angle; sends signal to engine control unit	
Two-way check valve	Controls pressure in fuel tank	
Water thermosensor	Detects coolant temperature; sends signal to engine control unit	

05U0FX-009

TROUBLESHOOTING GUIDE

ENGINE CONTROL OPERATION CHART
Input Devices and Engine Conditions

INPUT DEVICES / ENGINE CONDITIONS	APPROXIMATE TIME (BASED ON 10—16°C, or 50—60°F AMBIENT)	SENSORS							
		CRANK ANGLE SENSOR		AIRFLOW METER		WATER THERMOSENSOR	OXYGEN SENSOR	IGF SIGNAL	ATMOSPHERIC PRESSURE SENSOR
		G-SIGNAL	NE-SIGNAL	INTAKE AIR THERMOSENSOR	POTENTIOMETER				
CRANKING —COLD ENGINE • COLD AIR • COLD COOLANT	ZERO	SENDS No.1 CYLINDER TDC SIGNAL TO ECU	SENDS ENGINE SPEED SIGNAL TO ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	COOL TO WARM: MEDIUM VOLTAGE (2.3V and DROPPING)	SIGNAL HAS NO EFFECT ON ECU	SENDS IGNITION SPARK SIGNAL TO ECU	SENDS VOLTAGE SIGNAL TO ECU THAT VARIES WITH ALTITUDE; VOLTAGE (APPROX. 4V)
COLD START —FAST IDLE • COLD AIR • COLD COOLANT	ONE MINUTE			COOL TO WARM: MEDIUM VOLTAGE (4.3—1.5V)	LOW VOLUME AIRFLOW: (3.0V)		SENSOR COLD: LOW TO HIGH VOLTAGE (0—0.8V)		
COLD DRIVEAWAY —PART THROTTLE • WARM AIR • WARM COOLANT	TWO MINUTES				MODERATE VOLUME AIRFLOW· LOW TO MEDIUM VOLTAGE (1—3.5V)				
WARM DRIVEAWAY —PART THROTTLE • WARM AIR • WARM COOLANT	THREE MINUTES					WARM: MEDIUM VOLTAGE (APPROX. 0.7V AND DROPPING)	SENSOR WARM: HIGH VOLTAGE (ABOVE 0.6V)		
HOT CRUISE • WARM AIR • WARM COOLANT	MORE THAN FOUR MINUTES					HOT: LOW VOLTAGE (APPROX. 0.4V)	SENSOR HOT SWITCHING FROM HIGH VOLTAGE (ABOVE 0.6V RICH) TO LOW VOLTAGE (BELOW. 0.4V LEAN)		
HOT ACCELERATION —60% THROTTLE					MODERATE TO STRONG VOLUME AIRFLOW: (0.5—1.5V)				
HOT ACCELERATION —WIDE OPEN THROTTLE							HIGH VOLTAGE (ABOVE 0.6V RICH)		
DECELERATION —CLOSED THROTTLE					LOW VOLUME AIRFLOW (3.0V)		LOW VOLTAGE (BELOW 0.4V LEAN)		
HOT CURB IDLE —EXTENDED							SWITCHING FROM HIGH TO LOW VOLTAGE (0.4—0.6V)		
HOT ENGINE SHUTDOWN		OFF	OFF	OFF	OFF	OFF	SENSOR HOT: LOW VOLTAGE (0.1V LEAN) UNTIL SENSOR COOLS DOWN	OFF	OFF

SWITCHES										
THROTTLE SENSOR POWER TERMINAL	THROTTLE SENSOR IDLE TERMINAL	A/C SWITCH	NEUTRAL AND CLUTCH SWITCHES	STOP-LIGHT SWITCH	HEAD-LIGHT SWITCH	BLOWER CONTROL SWITCH	COOLING FAN SWITCH	P/S PRESSURE SWITCH	IGNITION SWITCH START POSITION	TEST TERMINAL
SEND SIGNAL TO ECU WHEN PEDAL DEPRESSED	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SENDS SIGNAL TO ECU	SIGNAL HAS NO EFFECT ON ECU
HIGH VOLTAGE SIGNAL TO ECU (APPROX. 5V)	LOW VOLTAGE SIGNAL TO ECU (BELOW 1.5V)	A/C SWITCH ON: SENDS SIGNAL TO ECU (APPROX. 0V) A/C SWITCH OFF: NO SIGNAL TO ECU (APPROX. 12V)	IN NEUTRAL: LOW VOLTAGE SIGNAL TO ECU (APPROX. 0V)	NO SIGNAL TO ECU (BELOW 1.5V)	HEAD-LIGHT SWITCH ON: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V) HEAD-LIGHT SWITCH OFF: LOW VOLTAGE SIGNAL TO ECU (BELOW 1.5V)	BLOWER CONTROL SWITCH ON: LOW VOLTAGE SIGNAL TO ECU (APPROX. 0V) BLOWER CONTROL SWITCH OFF: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)	COOLING FAN SWITCH ON: LOW VOLTAGE SIGNAL TO ECU (APPROX. 0V) COOLING FAN SWITCH ON: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)	STEERING WHEEL TURNED: LOW VOLTAGE SIGNAL TO ECU (APPROX. 0V) STEERING WHEEL STRAIGHT AHEAD: HIGH VOLTAGE TO ECU (APPROX. 12V)	NO SIGNAL TO ECU (BELOW 1.5V)	TERMINAL NOT GROUNDED: HIGH VOLTAGE TO ECU (APPROX. 12V)
LOW VOLTAGE SIGNAL TO ECU (APPROX. 0V)	HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)		DRIVING IN ANY GEAR: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)							
HIGH VOLTAGE SIGNAL TO ECU (APPROX. 5V)	LOW VOLTAGE SIGNAL TO ECU (APPROX. 0V)		IN NEUTRAL: LOW VOLTAGE SIGNAL TO ECU (APPROX. 0V)	BRAKE PEDAL DEPRESSED: SENDS SIGNAL TO ECU (APPROX. 12V)						LOW VOLTAGE SIGNAL TO ECU WHEN CONNECTOR GROUNDED (BELOW 1.5V)
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

05U0FX-010

Output Devices and Engine Conditions

OUTPUT DEVICES / ENGINE CONDITIONS	APPROXIMATE TIME (BASED ON 10—16°C or 50—60°F AMBIENT)	INJECTOR		ISC VALVE	SOLENOID VALVE (PURGE CONTROL)	A/C RELAY (A/C CUT-OFF)	MAIN RELAY	IGNITER
		INJECTION	INJECTION TIMING					
CRANKING —COLD ENGINE • COLD AIR • COLD COOLANT	ZERO	RICH	ALL CYLINDERS EACH Ne-SIGNAL	LARGE AMOUNT OF BYPASS AIR	OFF (PURGE CUT)	OFF (A/C CUT)	ON	IGNITION SPARK ADVANCE SIGNAL
COLD START —FAST IDLE • COLD AIR • COLD COOLANT	ONE MINUTE		2-GROUP			ON (A/C ON)		
COLD DRIVEAWAY —PART THROTTLE • COLD AIR • COLD COOLANT	TWO MINUTES							
WARM DRIVEAWAY —PART THROTTLE • WARM AIR • WARM COOLANT	THREE MINUTES	RICH AND LEAN		SMALL AMOUNT OF BYPASS AIR	OPERATES (DUTY VALUES [PURGE GAS AMOUNT] CHANGE)			
HOT CRUISE • WARM AIR • WARM COOLANT	MORE THAN FOUR MINUTES							
HOT ACCELERATION —60% THROTTLE		RICH						
HOT ACCELERATION —WIDE OPEN THROTTLE						OFF (A/C CUT)		
DECELERATION —CLOSED THROTTLE		FUEL CUT	FUEL CUT	LARGE AND SMALL AMOUNT OF BYPASS AIR	OFF (PURGE CUT)	ON (A/C ON)		
HOT CURB IDLE —EXTENDED		RICH AND LEAN	2-GROUP	SMALL AMOUNT OF BYPASS AIR				
HOT ENGINE SHUT DOWN	—	DOES NOT INJECT	DOES NOT INJECT	OFF	OFF	OFF	OFF	OFF

05U0FX-011

RELATIONSHIP CHART

Output Devices / Input Devices		Injector		ISC Valve	Solenoid Valve (Purge Control)	A/C Relay (A/C Cut-Off)	Igniter (Ignition Timing Control)
		Fuel Injection Amount	Fuel Injection Timing				
Test Terminal		×	×	○	×	×	○
Ignition Switch (Start Position)		○	○	○	○	○	○
P/S Pressure Switch		×	×	○	×	×	×
Cooling Fan Switch		×	×	○	×	×	×
Blower Control Switch		×	×	○	×	×	×
Headlight Switch		×	×	○	×	×	×
Stoplight Switch		○	×	×	×	×	×
Neutral and Clutch Switches		○	×	○	○	×	○
A/C Switch		×	×	○	×	○	×
Throttle Sensor	Idle Terminal (IDL)	○	×	○	○	×	○
	Power Terminal (POW)	○	×	×	×	○	×
Atmospheric Pressure Sensor		○	×	○	×	×	×
IGF Signal		○	×	×	×	×	×
Oxygen Sensor		○	×	×	○	×	×
Water Thermosensor		○	×	○	○	×	○
Airflow Meter	Potentiometer	○	×	×	○	×	○
	Intake Air Thermosensor	○	×	○	○	×	×
Crank Angle Sensor	Ne-Signal	○	○	○	○	×	○
	G-Signal	×	○	×	×	×	○

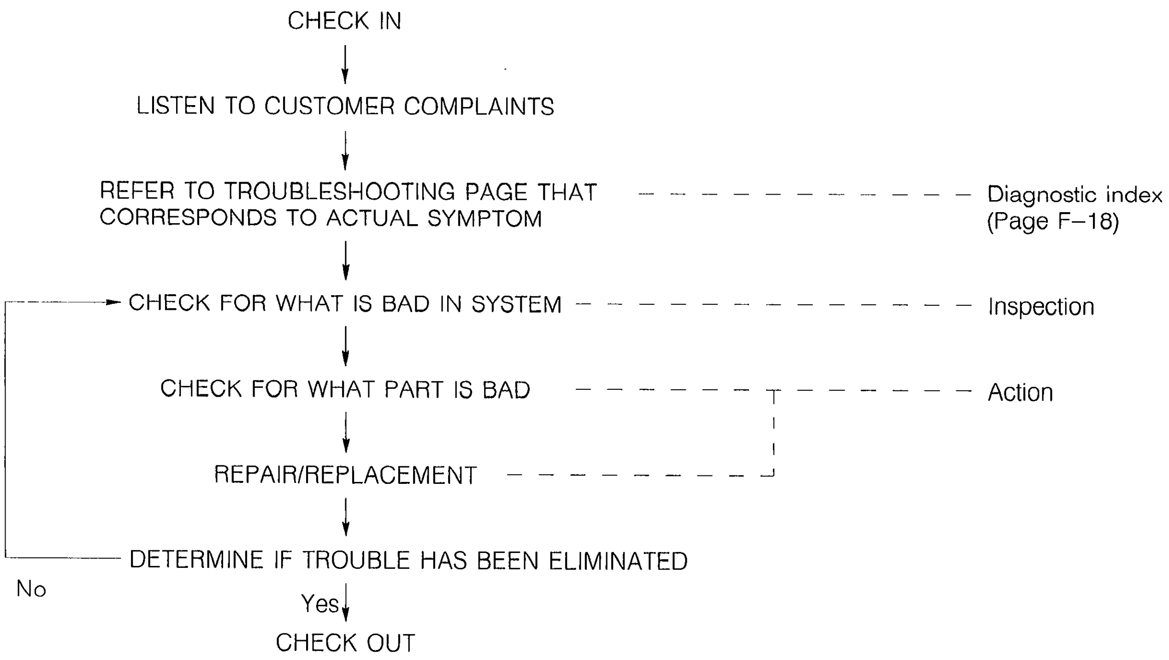
05U0FX-012

USING THIS SECTION

Introduction

Most of the fuel and emission control system is electrically controlled, often making it difficult to diagnose problems in the system, especially intermittent problems. Before undertaking actual checks, take a few minutes to talk with a customer who approaches with a drivability complaint. The customer is often a good source of information on such problems, especially intermittent ones. Through talks with the customer, one can find out what the symptoms are and under what conditions they occur.

Work flow

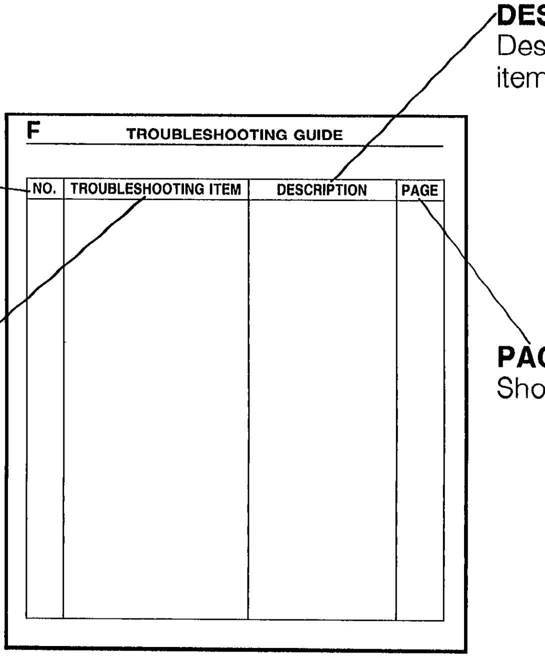

CHECK IN
LISTEN TO CUSTOMER COMPLAINTS
REFER TO TROUBLESHOOTING PAGE THAT CORRESPONDS TO ACTUAL SYMPTOM
Diagnostic index (Page F–18)
CHECK FOR WHAT IS BAD IN SYSTEM
Inspection
CHECK FOR WHAT PART IS BAD
Action
REPAIR/REPLACEMENT
DETERMINE IF TROUBLE HAS BEEN ELIMINATED
No
Yes
CHECK OUT

05U0FX-013

Diagnostic index

DESCRIPTION:
Describes each troubleshooting item.

NO.:
Each troubleshooting item is assigned a number.

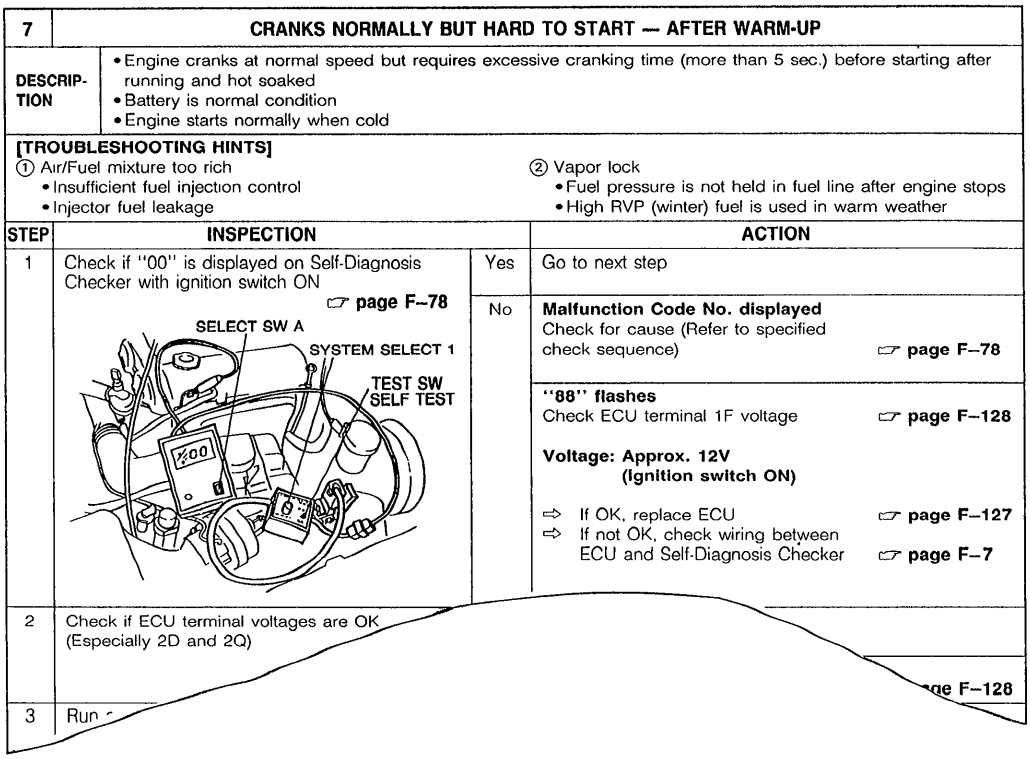

F
TROUBLESHOOTING GUIDE
NO.
TROUBLESHOOTING ITEM
DESCRIPTION
PAGE

PAGE:
Shows the reference page.

TROUBLESHOOTING ITEM:
There are 34 troubleshooting items. Choose the item that most closely corresponds to the actual symptom.

05U0FX-014

Troubleshooting chart



7	CRANKS NORMALLY BUT HARD TO START — AFTER WARM-UP
DESCRIP-TION	• Engine cranks at normal speed but requires excessive cranking time (more than 5 sec.) before starting after running and hot soaked • Battery is normal condition • Engine starts normally when cold

[TROUBLESHOOTING HINTS]

① Air/Fuel mixture too rich
- Insufficient fuel injection control
- Injector fuel leakage

② Vapor lock
- Fuel pressure is not held in fuel line after engine stops
- High RVP (winter) fuel is used in warm weather

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ page F–78	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ page F–78
			"88" flashes Check ECU terminal 1F voltage ☞ page F–128 **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ page F–127 ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ page F–7
2	Check if ECU terminal voltages are OK (Especially 2D and 2Q)		ge F–128
3	Run		

05U0FX-015

DESCRIPTION:
Further describes the symptom. Confirm that the chart addresses the actual symptom before beginning troubleshooting.

TROUBLESHOOTING HINTS:
This describes the possible point of malfunction.

STEP:
This shows the order of troubleshooting. Proceed with troubleshooting as indicated.

INSPECTION:
This describes an inspection to quickly determine the malfunction of parts. If a detailed procedure is necessary to perform the INSPECTION, refer to the page shown by the "☞" mark.

ACTION:
This recommends the appropriate action to take as a result (Yes/No) of the INSPECTION. How to perform the action is described on the reference page shown by the "☞" mark.

05U0FX-016

DIAGNOSTIC INDEX

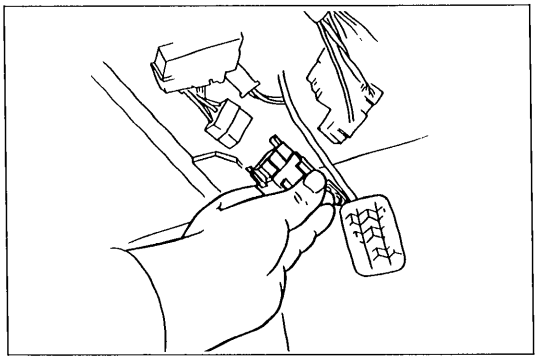
No.	TROUBLESHOOTING ITEM	DESCRIPTION	PAGE
1	Will not crank or cranks slowly	Refer to Engine Electrical System	G– 4
2	Cranks normally but will not start (No combustion)	Engine cranks at normal speed but shows no sign of "firing"	F–20
3	Cranks normally but will not start (Partial combustion) — When engine is cold	Engine cranks at normal speed but shows partial combustion and will not continue to run	F–22
4	Cranks normally but will not start (Partial combustion) — After warm-up	Engine cranks at normal speed but shows partial combustion and will not continue to run after running and hot soaked	F–24
5	Cranks normally but hard to start — Always	Engine cranks at normal speed but requires excessive cranking time (more than 5 sec.) before starting	F–26
6	Cranks normally but hard to start — When engine is cold	Same condition as No.5 when engine is cold Restarts OK after warm-up	F–28
7	Cranks normally but hard to start — After warm-up	Same condition as No.5 after running and hot soaked Starts normally when cold	F–29
8	Rough idle — Always	Engine vibrates excessively at idle in every condition	F–30
9	Low idle speed/Rough idle — Before warm-up	Engine speed low or engine vibrates excessively at idle during warm-up	F–32
10	Low idle speed/Rough idle — After warm-up	Engine runs normally at idle during warm-up but vibrates excessively after warm-up	F–34
11	High idle speed — After warm-up	Engine idle excessive for operation mode	F–36
12	Low idle speed — When A/C, P/S, or E/L ON	Engine speed decreases at idle when A/C, P/S, or E/L is ON	F–38
13	Rough idle just after starting	Engine starts normally but vibrates excessively only just after starting	F–39
14	Idle moves up and down	Engine speed up and down periodically at idle	F–40
15	Engine stalls at idle — Always	Engine starts normally but vibrates excessively and stalls at idle in every condition	F–42
16	Engine stalls at idle — Before warm-up	Engine starts normally but vibrates excessively and stalls at idle before warm-up	F–44
17	Engine stalls at idle — After warm-up	Engine runs normally at idle during warm-up but becomes rough and stalls after warm-up	F–45
18	Engine stalls during start-up	Engine unexpectedly stops running while starting	F–46
19	Engine stalls on deceleration	Engine unexpectedly stops running while decelerating or after deceleration	F–48
20	Engine stalls at idle — When A/C, P/S, or E/L ON	Engine unexpectedly stops running at idle when A/C, P/S, or E/L is ON	F–50
21	Engine stalls suddenly (Intermittent)	Engine intermittently stops running	F–51
22	Hesitates/Stumbles on acceleration	Flat spot occurs just after accelerator is depressed or mild jerking occurs during acceleration	F–52
23	Surges while cruising	Unexpected, usually repetitive change in engine speed	F–54
24	Lack of power	Performance poor under load Maximum speed reduced	F–56
25	Poor acceleration	Performance poor while accelerating	F–60
26	Runs rough on deceleration/Backfire	Engine runs rough while decelerating and abnormal combustion in exhaust system	F–64
27	Knocking	Abnormal combustion accompanied by audible "pinging" noise	F–66
28	Fuel odor	Gasoline odor in cabin	F–68
29	Exhaust sulfur smell	Exhaust gas smells abnormal (rotten egg smell)	F–69
30	High oil consumption	Oil consumption excessive	F–69
31	Poor fuel economy	Fuel economy unsatisfactory	F–70

No.	TROUBLESHOOTING ITEM	DESCRIPTION	PAGE
32	MIL always ON	Self-Diagnosis Checker does not indicate Malfunction Code No. but MIL comes on	F–72
33	MIL never ON	Self-Diagnosis Checker indicates Malfunction Code No. of input device but MIL never ON	F–72
34	A/C does not work	Blower fan operates but no cool air discharged	F–73

05U0FX-017

PRECAUTION

Fuel Pressure Release and Servicing Fuel System



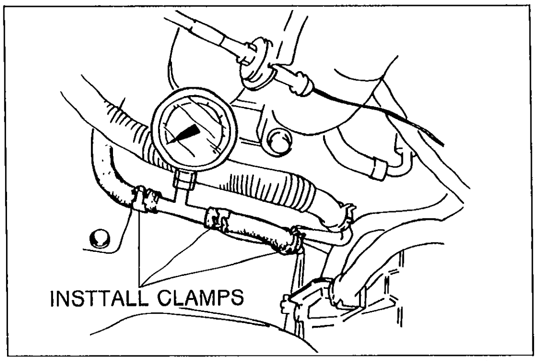
9BU0F2-076

Fuel in the fuel system remains under high pressure even when the engine is not running.

a) Before disconnecting any fuel line, release the fuel pressure from the fuel system to reduce the possibility of injury or fire.
   1. Start the engine.
   2. Disconnect the circuit opening relay connector.
   3. After the engine stalls, turn off the ignition switch.
   4. Reconnect the circuit opening relay connector.

b) Use a rag as protection from fuel spray when disconnecting the hoses.
   Plug the hoses after removal.

c) When inspecting the fuel system, use a suitable fuel pressure gauge.

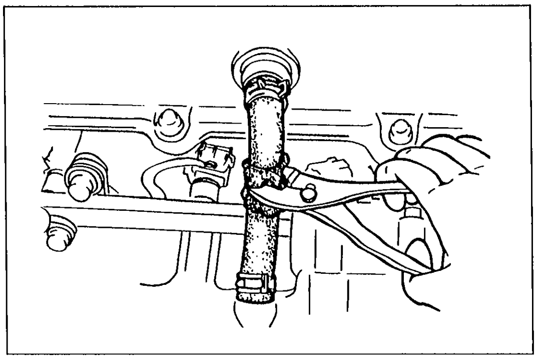


05U0FX-235

Caution

- **Install hose clamps when securing the fuel pressure gauge to the fuel pipe and the fuel main hose to prevent fuel leakage.**

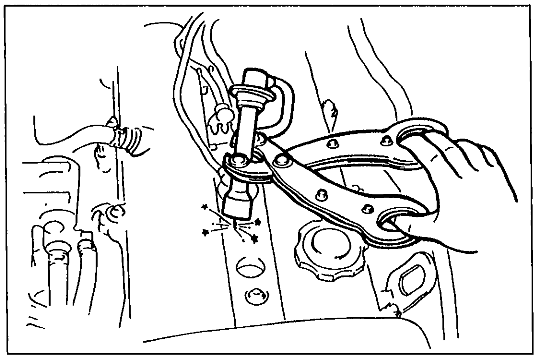
Pinching Hose



05U0FX-018

When pinching an air hose or fuel hose with pliers, wrap the hose with a rag to prevent damage.

Checking ignition spark



05U0FX-236

When checking ignition spark condition, hold the high-tension lead with insulated pliers.

SYMPTOM TROUBLESHOOTING

2	**CRANKS NORMALLY BUT WILL NOT START (NO COMBUSTION)**
DESCRIPTION	• Engine cranks at normal speed but shows no sign of "firing" • Battery in normal condition • Throttle valve not held fully open while cranking • Fuel in tank

[TROUBLESHOOTING HINTS]

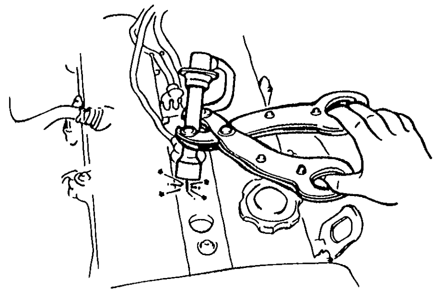
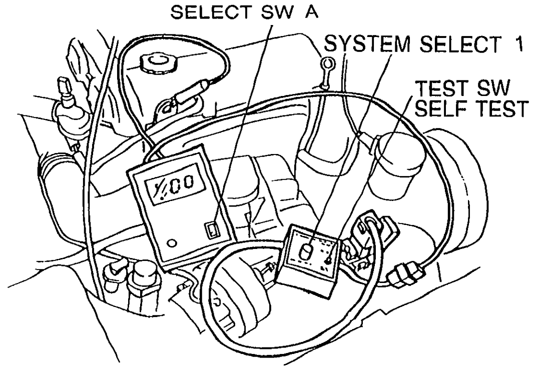
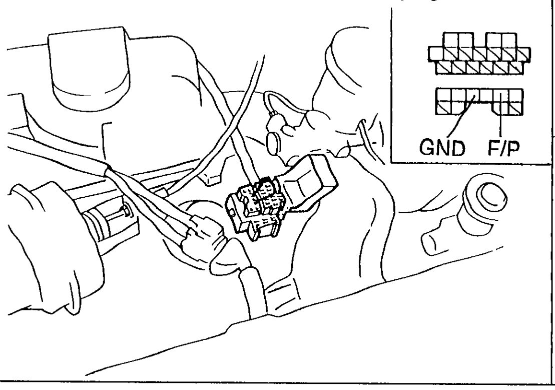
Because of no combustion, possibly no fuel is injected to engine or no ignition at all cylinders

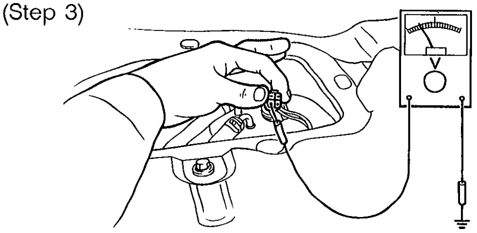
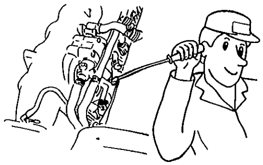
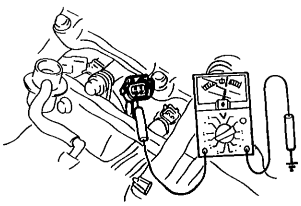
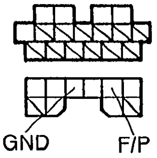
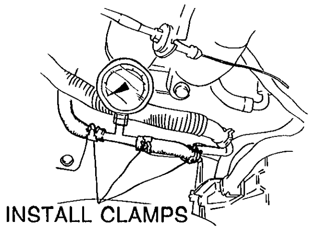
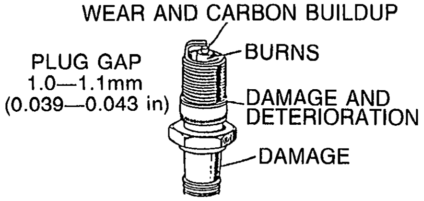
① No spark
- Ignition control malfunction
- Ignition system component malfunction

② No fuel injection
- Fuel pump does not operate
- Injector does not operate

③ Low fuel line pressure

④ Low engine compression

STEP	INSPECTION		ACTION
1	Check if strong blue spark is visible at disconnected high-tension lead while cranking engine 	Yes	Go to Step 3
		No	Go to Step 2
2	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78** 	Yes	Check ignition system (Refer to Troubleshooting "Misfire") ☞ **page G–18**
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
3	Connect diagnosis connector terminals F/P and GND with jumper wire and check for fuel pump operating sound with ignition switch ON ☞ **page F–107** 	Yes	Check if engine starts in this condition ⇨ If starts, check circuit opening relay ☞ **page F–110** ⇨ If does not start, go to Step 5
		No	Go to Step 4

STEP	INSPECTION		ACTION
4	Check if approx. 12V exists at fuel pump connector (L/R) wire with jumper wire connected (Step 3) 	Yes	Check continuity of fuel pump ☞ **page F–107**
		No	Check circuit opening relay ☞ **page F–110**
5	Check for injector operating sound while cranking engine 	Yes	Go to Step 7
		No	Go to Step 6
6	Check if approx. 12V exists at injector connector (W/R) wire with ignition switch ON 	Yes	Check ECU terminals 2A, 2U and 2V voltages ☞ **page F–129**
		No	Check for open circuit in wiring between main relay and injector ☞ **page F– 7**
7	Connect diagnosis connector terminals F/P and GND with jumper wire and check for correct fuel line pressure with ignition switch ON ☞ **page F–103** **Fuel Line pressure:** **265—314 kPa (2.7—3.2 kg/cm², 38—46 psi)**  	Yes	Go to next step
		No	**Low pressure** Check fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure ☞ **page F–108**
8	Check for correct engine compression ☞ **page B–10** **Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm², 192—135 psi) - 300 rpm**	Yes	Go to next step
		No	Check engine condition ☞ **page B–10** • Worn piston, piston rings or cylinder wall • Defective cylinder head gasket • Distorted cylinder head • Improper valve seating • Valve sticking in guide
9	Check if spark plugs are OK  WEAR AND CARBON BUILDUP PLUG GAP 1.0—1.1mm (0.039—0.043 in) BURNS DAMAGE AND DETERIORATION DAMAGE	Yes	Go to next step
		No	Repair, clean, or replace ☞ **page G–20**
10	Try known good ECU and check if condition improves ☞ **page F–127**		

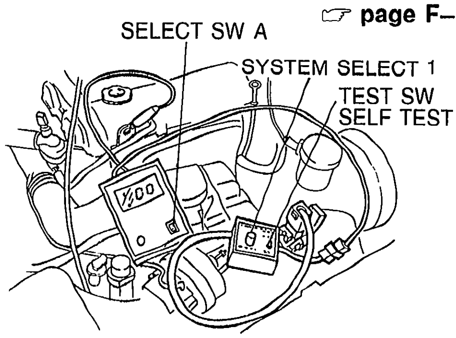
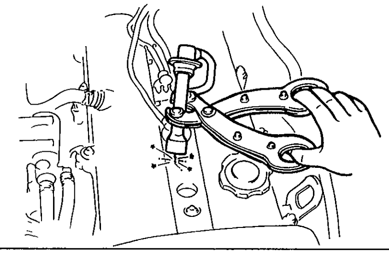
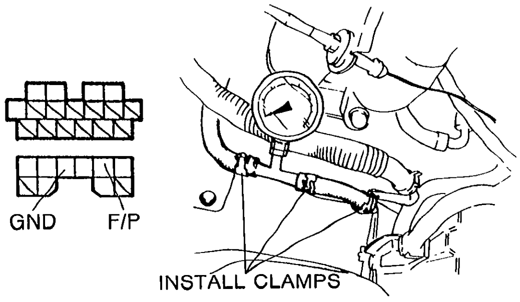
3	CRANKS NORMALLY BUT WILL NOT START (PARTIAL COMBUSTION) — WHEN ENGINE IS COLD
DESCRIPTION	• Engine cranks at normal speed but shows partial combustion and will not continue to run • Battery in normal condition • Fuel in tank

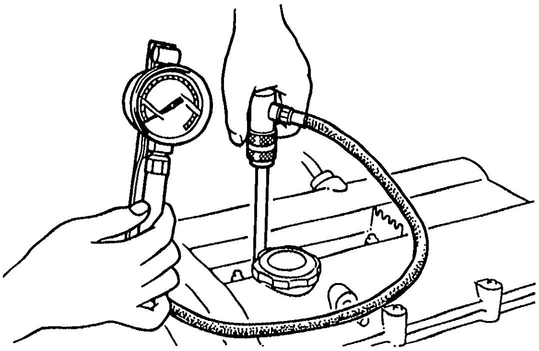
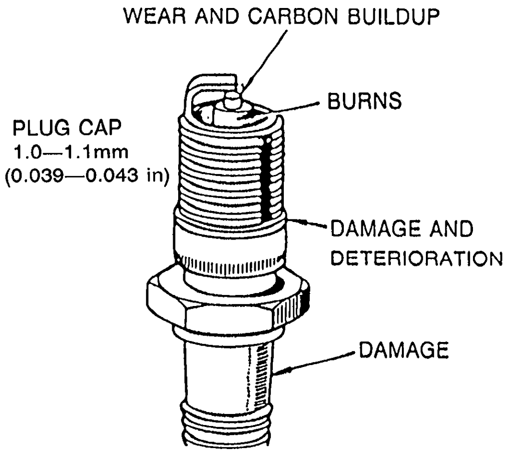
[TROUBLESHOOTING HINTS]

① Air/Fuel mixture too rich
  - Air cleaner element clogged
  - Airflow meter stuck

② Air/Fuel mixture too lean
  - Fuel injection control malfunction (Correction for coolant temperature)
  - Low fuel line pressure
  - Air leakage of intake air system

③ Low engine compression

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ page F-78 	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ page F-80
			"88" flashes Check ECU terminal 1F voltage ☞ page F-128 **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ page F-127 ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ page F-7
2	Check if strong blue spark is visible at each disconnected high-tension lead while cranking engine 	Yes	Go to next step
		No	Check ignition system (Refer to Troubleshooting "Misfire") ☞ page G-18
3	Connect diagnosis connector terminal F/P and GND with jumper wire and check for correct fuel line pressure with ignition switch ON ☞ page F-103 **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm^2, 38—46 psi)** 	Yes	Go to next step
		No	**Low pressure** Check fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ page F-111 ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure ☞ page F-108
			High pressure Check if fuel return hose is clogged or restricted ⇨ If OK, replace pressure regulator ☞ page F-112 ⇨ If not OK, repair or replace
4	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ page F-129	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ page F-132

STEP	INSPECTION		ACTION
5	Check for air leakage of intake air system ☞ **page F–93**	Yes	Repair or replace
		No	Go to nest step
6	Check if airflow meter vane moves smoothly	Yes	Go to nest step
		No	Repair or replace ☞ **page F–92**
7	Check for correct engine compression ☞ **page B–10** **Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm^2, 192—135 psi) - 300 rpm** 	Yes	Go to next step
		No	Check engine condition ☞ **page B–10** • Worn piston, piston rings or cylinder wall • Defective cylinder head gasket • Distorted cylinder head • Improper valve seating • Valve sticking in guide
8	Check if spark plugs are OK  WEAR AND CARBON BUILDUP BURNS PLUG CAP 1.0—1.1mm (0.039—0.043 in) DAMAGE AND DETERIORATION DAMAGE	Yes	Go to next step
		No	Repair, clean, or replace ☞ **page G–20**
9	Try known good ECU and check if condition improves ☞ **page F–127**		

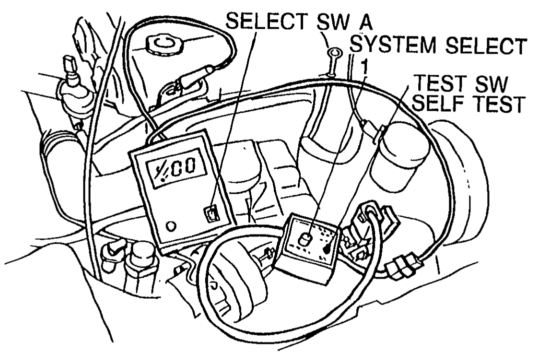
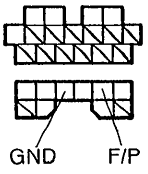
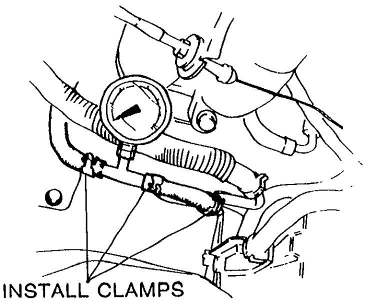
05U0FX-020

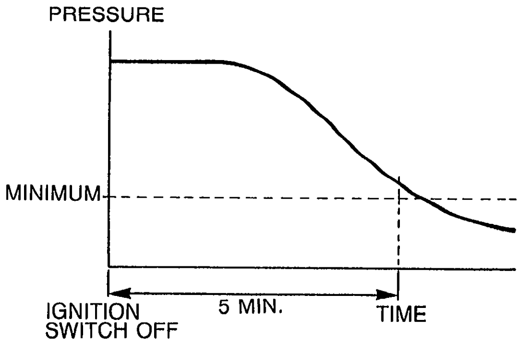
4	CRANKS NORMALLY BUT WILL NOT START (PARTIAL COMBUSTION) — AFTER WARM-UP
DESCRIPTION	• Engine cranks at normal speed but shows partial combustion and will not continue to run after running and hot soaked • Battery in normal condition • Engine starts normally when cold

[TROUBLESHOOTING HINTS]

① Air/Fuel mixture too rich
- Fuel injection control malfunction (Correction for coolant temperature)
- Injector fuel leakage

② Vapor lock
- Fuel pressure not held in fuel line after engine stops
- High RVP (winter) fuel used in warm weather

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST 00	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80** **"88" flashes** Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check if ECU terminal voltages are OK (2D and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**
3	Connect diagnosis connector terminals F/P and GND with jumper wire and check for correct fuel line pressure with ignition switch ON ☞ **page F–103** **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm^2, 38—46 psi)**  	Yes	Go to next step
		No	**Low pressure** Check fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check fuel line and filter for clogging If not clogged, check fuel pump maximum pressure ☞ **page F–108** **High pressure** Check if fuel return hose is clogged or restricted ⇨ If OK, replace pressure regulator ☞ **page F–112** ⇨ If not OK, repair or replace hose

STEP	INSPECTION		ACTION
4	With condition of step 3, check if fuel line pressure is held after ignition switch is turned OFF ☞ **page F–102** **Fuel line pressure: More than 147 kPa (1.5 kg/cm^2, 21 psi) for 5 min.**  	Yes	Go to Step 6
		No	Go to Step 5
5	Check if fuel line pressure is held after ignition switch is turned OFF and blocking outlet of pressure regulator ☞ **page F–111** **Fuel line pressure:** **More than 147 kPa (1.5 kg/cm^2, 21 psi) for 5 min.**	Yes	Replace pressure regulator ☞ **page F–112**
		No	Check fuel pump hold pressure ☞ **page F–107** ⇨ If OK, check injector for fuel leakage ☞ **page F–113** ⇨ If not OK, replace fuel pump ☞ **page F–108**
6	Try known good ECU and check if condition improves ☞ **page F–127**	Yes	Replace ECU
		No	Change fuel to another brand

05U0FX-021

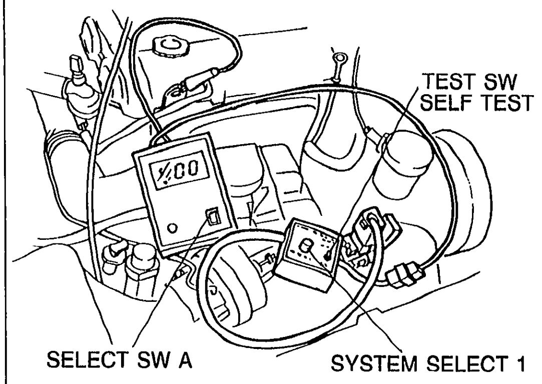
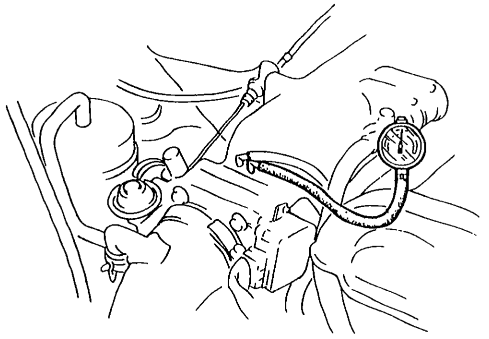
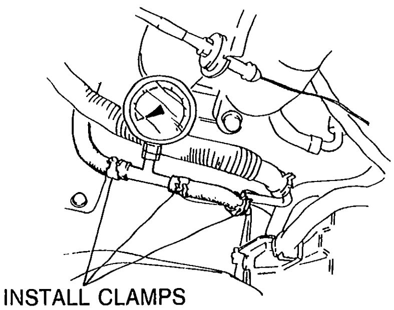
5	CRANKS NORMALLY BUT HARD TO START — ALWAYS
DESCRIPTION	• Engine cranks at normal speed but requires excessive cranking time (more than 5 sec.) before starting • Battery in normal condition

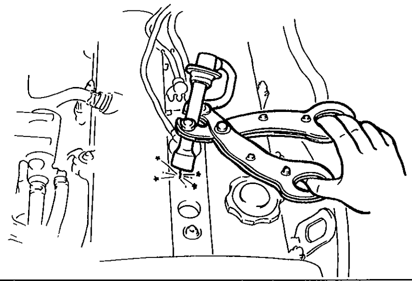
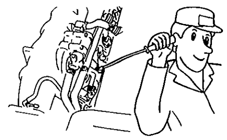
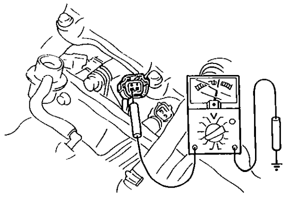
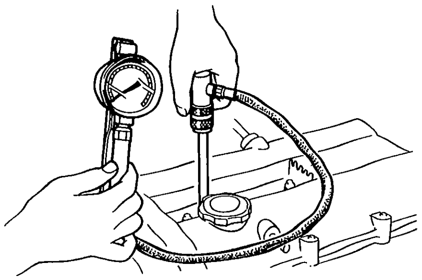
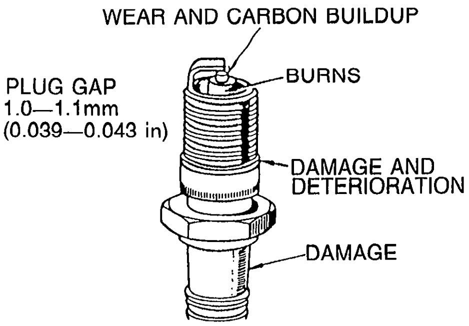
[TROUBLESHOOTING HINTS]

① Air/Fuel mixture too lean
- Fuel injection control malfunction (Correction for coolant temperature)
- Low fuel line pressure
- Air leakage

② Air/Fuel mixture too rich
- Air cleaner element clogged
- Airflow meter stuck

③ Poor ignition spark

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  00 TEST SW SELF TEST SELECT SW A SYSTEM SELECT 1	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80** **"88" flashes** Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check for correct intake manifold vacuum at idle **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**
3	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go to next step
		No	Replace air cleaner element ☞ **page F–92**
4	Check for correct fuel line pressure at idle ☞ **page F–103** **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm^2, 38—46 psi) (Vacuum hose to pressure regulator disconnected)**  	Yes	Go to next step
		No	**Low pressure** Check fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure ☞ **page F–108**

STEP	INSPECTION		ACTION
5	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**
6	Check if strong blue spark is visible at each disconnected high-tension lead while cranking engine 	Yes	Go to next step
		No	Check ignition system (Refer to Troubleshooting "Misfire") ☞ **page G–18**
7	Check for injector operating sound at each injector at idle 	Yes	Go to Step 9
		No	Go to Step 8
8	Check if approx. 12V exists at injector connector (W/R) wire with ignition switch ON 	Yes	Check if injector resistance is OK ☞ **page F–112** **Resistance: Approx. 14Ω** ⇨ If OK, check wiring between injector and ECU ☞ **page F–7** ⇨ If not OK, replace injector ☞ **page F–112**
		No	Check wiring between main relay and injector ☞ **page F–7**
9	Check for correct engine compression ☞ **page B–10** **Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm², 192—135 psi) - 300 rpm** 	Yes	Go to next step
		No	Check engine condition ☞ **page B–10** • Worn piston, piston rings or cylinder wall • Defective cylinder head gasket • Distorted cylinder head • Improper valve seating • Valve sticking in guide
10	Check if spark plugs are OK  WEAR AND CARBON BUILDUP PLUG GAP 1.0—1.1mm (0.039—0.043 in) BURNS DAMAGE AND DETERIORATION DAMAGE	Yes	Go to next step
		No	Repair, clean, or replace ☞ **page G–20**
11	Try known good ECU and check if condition improves ☞ **page F–127**		

05U0FX-022

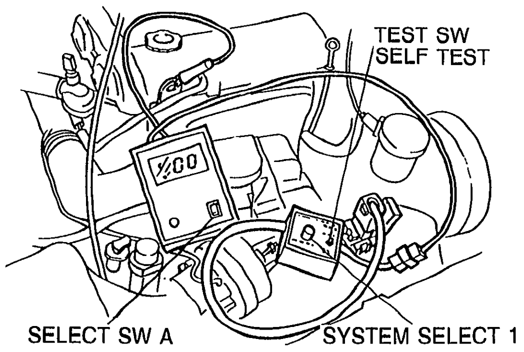
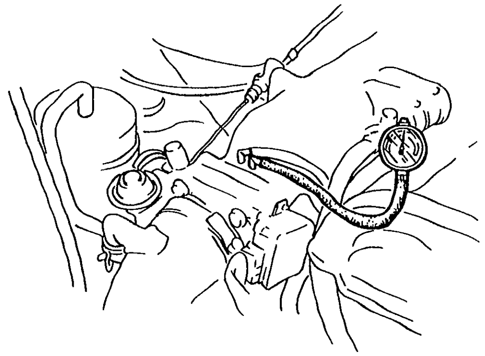
6	CRANKS NORMALLY BUT HARD TO START — WHEN ENGINE IS COLD
DESCRIPTION	• Engine cranks at normal speed but requires excessive cranking time before starting • Battery in normal condition • Restarts OK after warm-up

[TROUBLESHOOTING HINTS]

① Air/Fuel mixture too rich
- Airflow meter stuck
- Air cleaner element clogged
- Idle speed control malfunction

② Air/Fuel mixture too lean
- Fuel injection control malfunction (Correction for coolant temperature)

③ Poor atomization of fuel
- Low RVP (summer) fuel used in cold weather

STEP	INSPECTION		ACTION	
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ page F–78  TEST SW SELF TEST 00 SELECT SW A SYSTEM SELECT 1	Yes	Go to next step	
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence)	☞ page F–80
			"88" flashes Check ECU terminal 1F voltage	☞ page F–128
			Voltage: Approx. 12V (Ignition switch ON)	
			⇨ If OK, replace ECU	☞ page F–127
			⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker	☞ page F–7
2	Check if ECU terminal voltages are OK (1C, 2D, 2O and 2Q) ☞ page F–128	Yes	Go to next step	
		No	Check for cause (Refer to "Check Point for Each Terminal")	☞ page F–131
3	Check if engine starts easily when depressing accelerator while cranking	Yes	Check if ISC valve is OK	☞ page F–99
			⇨ If OK, check air valve	☞ page F–99
			⇨ If not OK, replace ISC valve	☞ page F–99
		No	Go to next step	
4	Check for correct intake manifold vacuum at idle **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step	
		No	Check for air leakage of intake air system components	☞ page F–93
5	Check if air cleanerr element is clean ☞ page F–75	Yes	Go to next step	
		No	Replace air cleaner element	☞ page F–92
6	Try known good ECU and check if condition improves ☞ page F–127	Yes	Replace ECU	
		No	Change fuel to another brand	

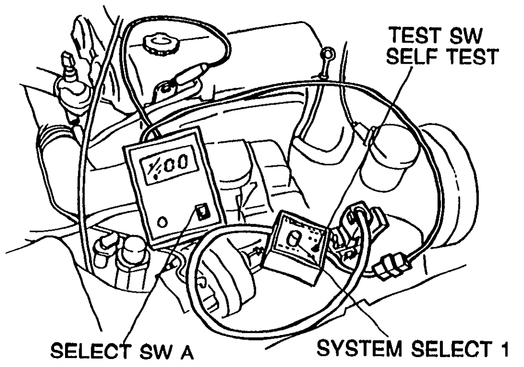
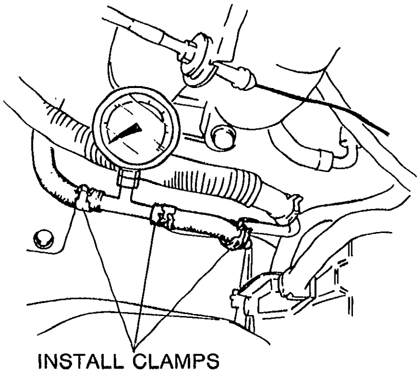
05U0FX-023

7	CRANKS NORMALLY BUT HARD TO START — AFTER WARM-UP
DESCRIPTION	• Engine cranks at normal speed but requires excessive cranking time (more than 5 sec.) before starting after running and hot soaked • Battery in normal condition • Engine starts normally when cold

[TROUBLESHOOTING HINTS]

① Air/Fuel mixture too rich
- Fuel injection control malfunction
- Injector fuel leakage

② Vapor lock
- Fuel pressure not held in fuel line after engine stops
- High RVP (winter) fuel used in warm weather

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78** 	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check if ECU terminal voltages are OK (2D and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**
3	Run engine at idle and check if fuel line pressure is held after ignition switch turned OFF ☞ **page F–102** **Fuel line pressure: More than 147 kPa (1.5 kg/cm^2, 21 psi) for 5 min.** 	Yes	Go to next step
		No	Block outlet of pressure regulator and check if fuel line pressure is held after ignition switch turned OFF ☞ **page F–111** ⇨ If OK, replace pressure regulator ☞ **page F–112** ⇨ If not OK, check fuel pump hold pressure ☞ **page F–107** If fuel pump is OK, check injector for fuel leakage ☞ **page F–113**
4	Try known good ECU and check if condition improves ☞ **page F–127**	Yes	Replace ECU
		No	Change fuel to another brand

05U0FX-024

8	ROUGH IDLE — ALWAYS
DESCRIPTION	• Engine vibrates excessively at idle in every condition

[TROUBLESHOOTING HINTS]

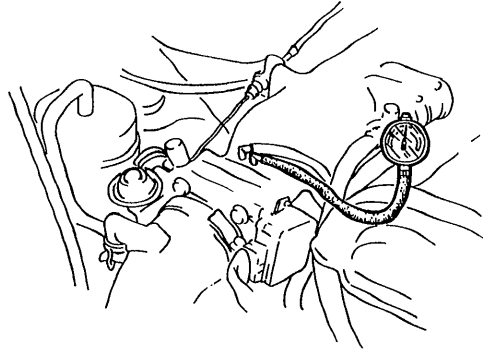
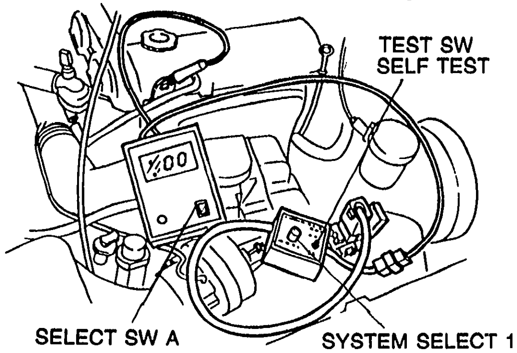
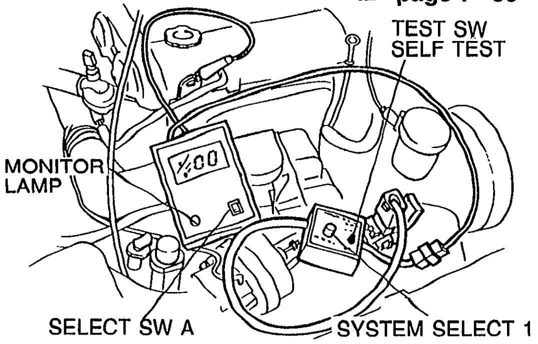
① Air/Fuel mixture too lean
- Air leakage
- Fuel injection control malfunction
- Low fuel line pressure

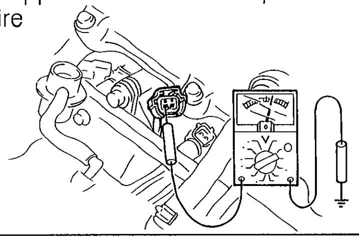
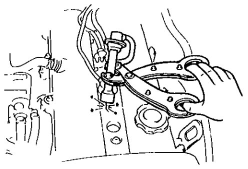
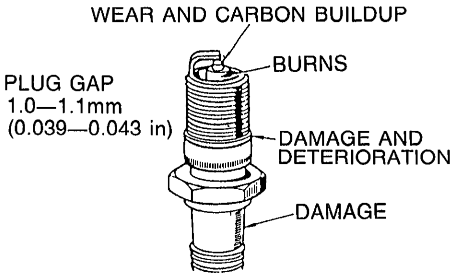
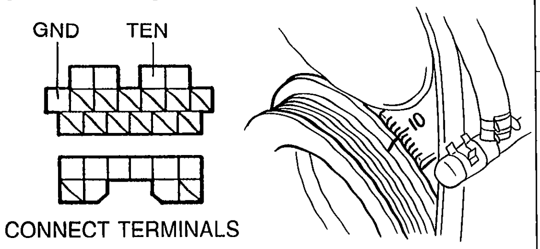
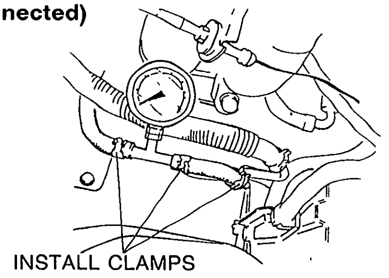
② One or more injectors not operating or clogged

③ One or more spark plugs not sparking

④ Injection timing misadjustment

⑤ Low engine compression

STEP	INSPECTION		ACTION
1	Check for correct intake manifold vacuum at idle **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**
2	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go to next step
		No	Replace air cleaner element ☞ **page F–92**
3	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  TEST SW SELF TEST 00 SELECT SW A SYSTEM SELECT 1	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80** **"88" flashes** Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
4	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  TEST SW SELF TEST MONITOR LAMP 00 SELECT SW A SYSTEM SELECT 1	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90** **Lamp always ON** Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
5	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**

STEP	INSPECTION		ACTION
6	Check for injector operating sound at idle with sound scope or screwdriver	Yes	Go to Step 8
		No	Go to Step 7
7	Check if approx. 12V exists at injector connector (W/R) wire 	Yes	Check if injector resistance is OK ☞ **page F–112** **Resistance: Approx. 14Ω** ⇨ If OK, check wiring between ECU and injector ☞ **page F–7** ⇨ If not OK, replace injector ☞ **page F–112**
		No	Check wiring between ECU and injector ☞ **page F–7**
8	Disconnect each high-tension lead at idle and check if engine speed decreases equally each time 	Yes	Disconnect each injector connector at idle and check if engine speed decreases equally each time ⇨ If OK, go to Step 10 ⇨ If not OK, check injector for fuel leakage ☞ **page F–113**
		No	Go to step 9
9	Check if spark plugs are OK  WEAR AND CARBON BUILDUP BURNS PLUG GAP 1.0—1.1mm (0.039—0.043 in) DAMAGE AND DETERIORATION DAMAGE	Yes	Check for correct engine compression ☞ **page B–10** ⇨ If OK, replace injector ☞ **page F–112** ⇨ If not OK, check for cause (Refer to Section B) ☞ **page B–10**
		No	Repair, clear, or replace ☞ **page G–20**
10	Check for correct ignition timing at idle ☞ **page F–75** **Ignition timing: 10° ± 1° BTDC** 	Yes	Check for correct idle speed ☞ **page F–76** **Idle speed: 850 ± 50 rpm** ⇨ If OK, go to next step ⇨ If not OK, adjust idle speed ☞ **page F–76**
		No	Adjust ☞ **page F–75**
11	Check for correct fuel line pressure at idle ☞ **page F–103** **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm², 38—48 psi) (Vacuum hose to pressure regulator disconnected)** 	Yes	Go to next step
		No	**Low pressure** Check fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure ☞ **page F–108**
12	Try known good ECU and check if condition improves ☞ **page F–127**		

05U0FX-025

9 LOW IDLE SPEED/ROUGH IDLE — BEFORE WARM-UP

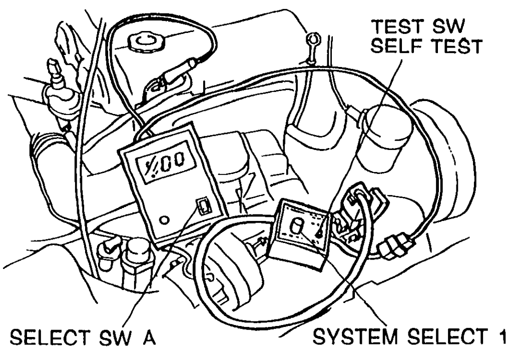
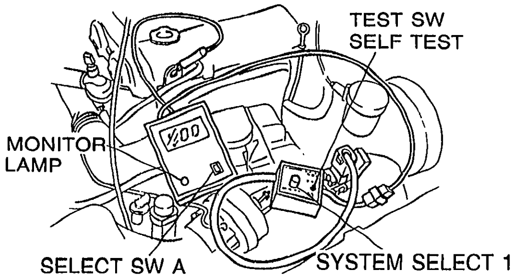
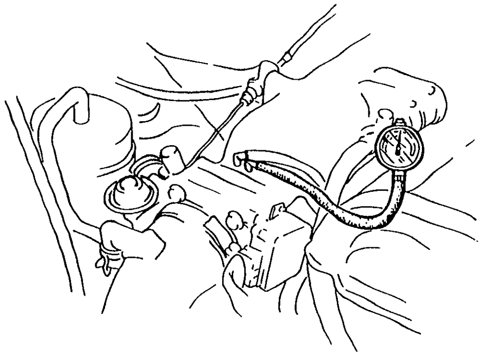
DESCRIPTION	• Engine speed low or engine vibrates excessively at idle during warm-up

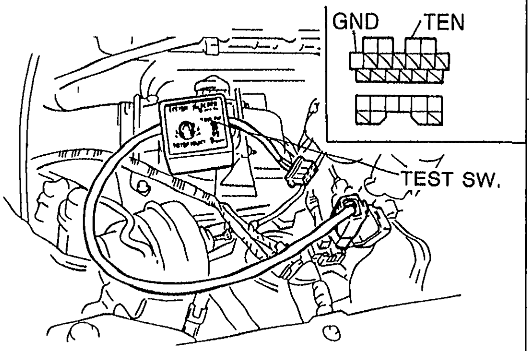
[TROUBLESHOOTING HINTS]

① Low intake air amount
- Airflow meter stuck
- Air cleaner element clogged
- Idle speed control
  - [Air valve
  - Correction for coolant temperature]

② Low fuel injection amount
- Fuel injection control malfunction (Correction for coolant temperature)

③ Poor atomization of fuel
- Low RVP (summer) fuel used in cold weather

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  TEST SW SELF TEST MONITOR LAMP SELECT SW A SYSTEM SELECT 1	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
3	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**
4	Check for correct intake manifold vacuum at idle **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**
5	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go next step
		No	Replace air cleaner element ☞ **page F–92**

STEP	INSPECTION		ACTION
6	Connect System Selector to diagnosis connector and set Test Switch to "SELF TEST" when engine is cold Check if engine speed decreases as engine warms up ☞ **page F–98** 	Yes	Go to next step
		No	Check air valve ☞ **page F–99**
7	With condition of Step 5 check for correct ignition timing at idle after warm-up ☞ **page F–75** **Ignition timing: 10° ± 1° BTDC**	Yes	Go to next step
		No	Adjust ☞ **page F–75**
8	Try known good ECU and check if condition improves ☞ **page F–127**	Yes	Replace ECU ☞ **page F–127**
		No	Change fuel to another brand

05U0FX-026

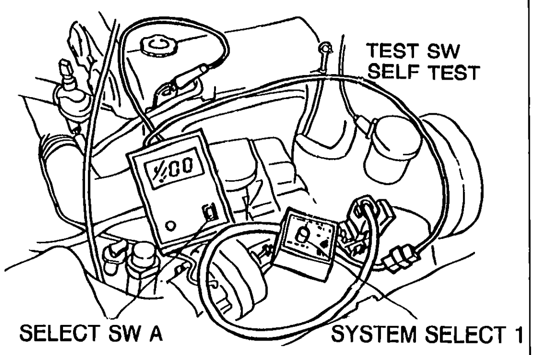
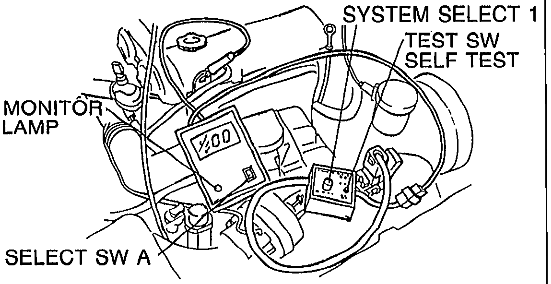
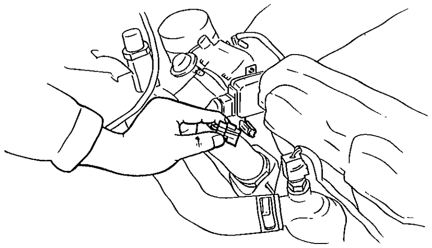
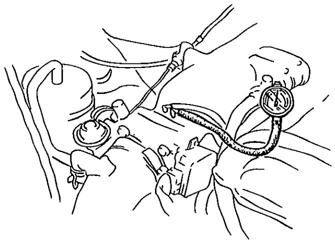
10	LOW IDLE SPEED/ROUGH IDLE — AFTER WARM-UP
DESCRIPTION	• Engine runs normally at idle during warm-up but vibrates excessively after warm-up

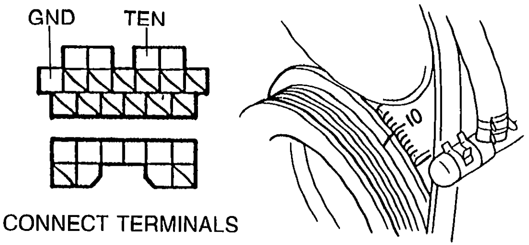
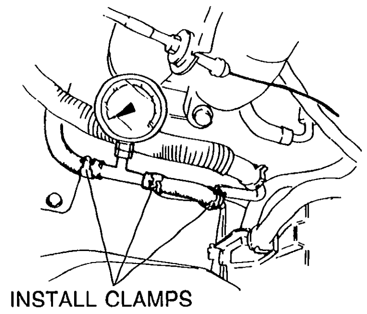
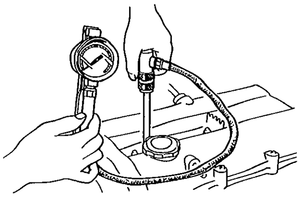
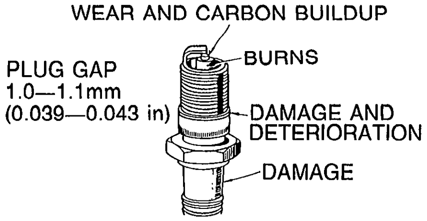
[TROUBLESHOOTING HINTS]

① Idle speed control malfunction
② Air/Fuel mixture too lean
- Air leakage of intake air system
- Low fuel line pressure

③ Air/Fuel mixture too rich
- Fuel injection control malfunction (Correction for coolant temperature)

④ Poor ignition spark
⑤ Low engine compression

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78** 	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP SELECT SW A	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
3	Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC valve 	Yes	Go to next step
		No	Replace ISC valve ☞ **page F–99**
4	Check for correct intake manifold vacuum at idle **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	**Low vacuum** Check for air leakage of intake air system components ☞ **page F–93**

STEP	INSPECTION		ACTION
5	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ page F–128	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ page F–132
6	Check for correct ignition timing at idle ☞ page F–75 **Ignition timing: 10° ± 1° BTDC**  	Yes	Check for correct idle speed ☞ page F–76 **Idle speed: 850 ± 50 rpm** ⇨ If OK, go to next step ⇨ If not OK, adjust idle speed ☞ page F–76
		No	Adjust ☞ page F–75
7	Check for correct fuel line pressure at idle ☞ page F–103 **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm^2, 38—46 psi) (Vacuum hose to pressure regulator disconnected)**  	Yes	Go to next step
		No	**Low pressure** Check fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ page F–111 ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure ☞ page F–108
8	Check if strong blue spark is visible at each disconnected high-tension lead while cranking engine	Yes	Go to next step
		No	Check ignition system (Refer to Troubleshooting "Misfire") ☞ page G–18
9	Check for correct engine compression ☞ page B–10 **Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm^2, 192—135) - 300 rpm** 	Yes	Go to next step
		No	Check engine condition ☞ page B–10 • Worn piston, piston rings or cylinder wall • Defective cylinder head gasket • Distorted cylinder head • Improper valve seating • Valve sticking in guide
10	Check if spark plugs are OK  WEAR AND CARBON BUILDUP PLUG GAP 1.0—1.1mm (0.039—0.043 in) BURNS DAMAGE AND DETERIORATION DAMAGE	Yes	Go to next step
		No	Repair, clear, or replace ☞ page G–20
11	Try known good ECU and check if condition improves ☞ page F–127		

05U0FX-027

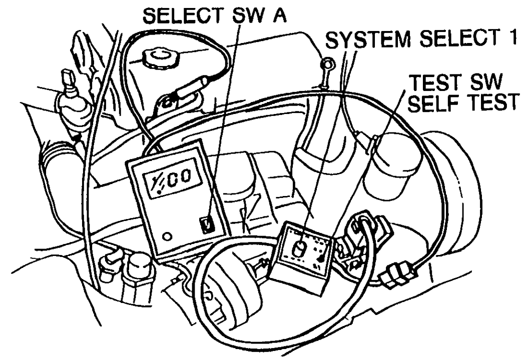
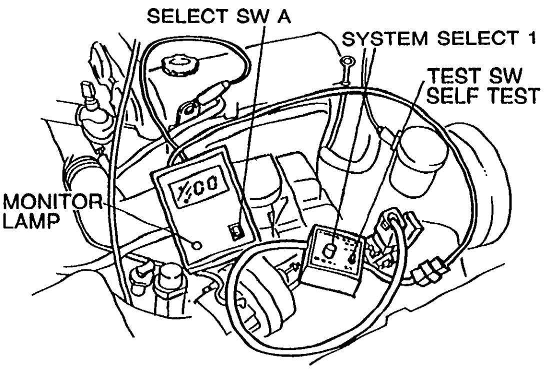
11 HIGH IDLE SPEED — AFTER WARM-UP

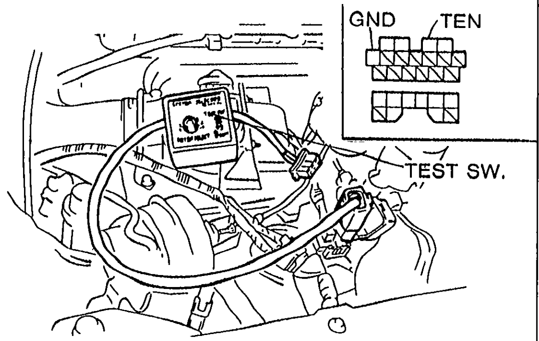
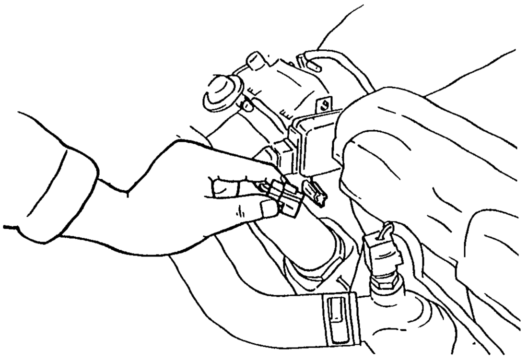
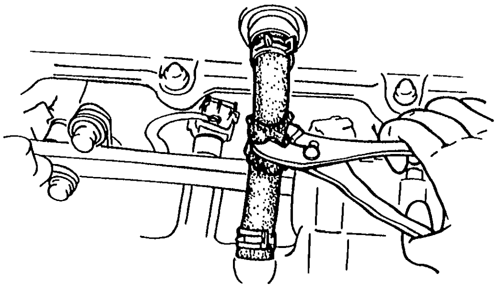
[TROUBLESHOOTING HINTS]

Excessive intake air supplied to engine

① Throttle valve not fully closed

② Idle speed control malfunction
- Air valve not closing
- ISC valve stuck
- Incorrect coolant temperature signal

STEP	INSPECTION		ACTION
1	Check if throttle valve is fully closed when accelerator released	Yes	Go to Step 3
		No	Check if throttle linkage is correctly installed and operates freely ☞ **page F–96** ⇨ If OK, go to Step 2 ⇨ If not OK, clean, adjust or replace linkage ☞ **page F–96**
2	Check if dashpot is correctly adjusted ☞ **page F–121** **Dashpot set speed: 2,500 ± 150 rpm**	Yes	Check if throttle valve is contaminated ⇨ If contaminated, clean throttle body ☞ **page F–94** ⇨ If not contaminated, replace throttle body ☞ **page F–94**
		No	Adjust ☞ **page F–121**
3	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST 00	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
4	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP 00	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**

STEP	INSPECTION		ACTION
5	Connect System Selector to diagnosis connector and set Test Switch to "SELF TEST" when engine is cold Check if engine speed decreases as engine warms up 	Yes	Go to next step
		No	Check air valve ☞ **page F–99**
6	Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC valve 	Yes	Go to next step
		No	Check ISC valve ☞ **page F–99**
7	Pinch PCV hose with pliers and check if engine speed decreases 	Yes	Check PCV valve ☞ **page F–117**
		No	Go to next step
8	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ **page F–129**	Yes	Try known good ECU ☞ **page F–127**
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**

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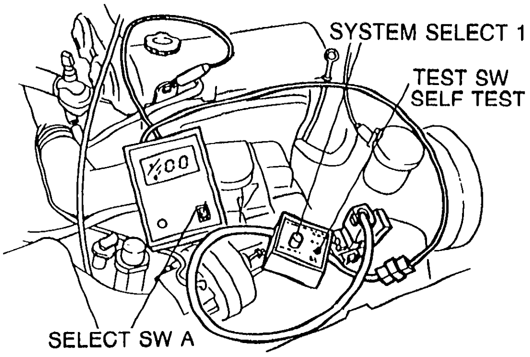
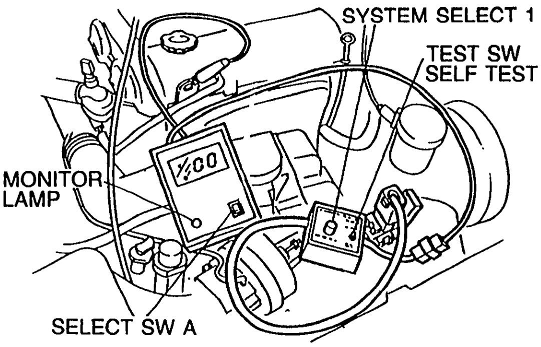
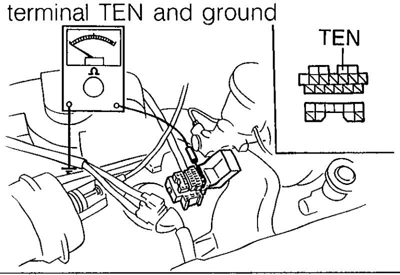
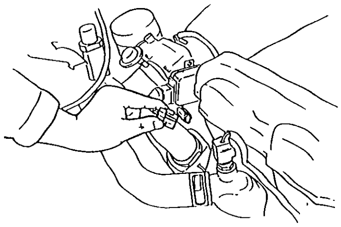
12 LOW IDLE SPEED — WHEN A/C, P/S, OR E/L ON

DESCRIPTION
- Engine speed decreases at idle when A/C, P/S, or E/L ON
- A/C, P/S, headlights, blower fan and electric cooling fan operate normally

[TROUBLESHOOTING HINTS]

① Idle speed control malfunction
- Engine speed feedback control malfunction
- ISC valve stuck

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  SYSTEM SELECT 1 TEST SW SELF TEST 00 SELECT SW A	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80** **"88" flashes** Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SYSTEM SELECT 1 TEST SW SELF TEST 00 MONITOR LAMP SELECT SW A	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90** **Lamp always ON** Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
3	Check if continuity exists between diagnosis connector terminal TEN and ground 	Yes	Check for short circuit in wiring between diagnosis connector terminal TEN and ground ☞ **page F–7**
		No	Go to next step
4	Disonnect ISC valve connector at idle and check if "clicking" is heard from ISC valve 	Yes	Try known good ECU ☞ **page F–127**
		No	Replace ISC valve ☞ **page F–99**

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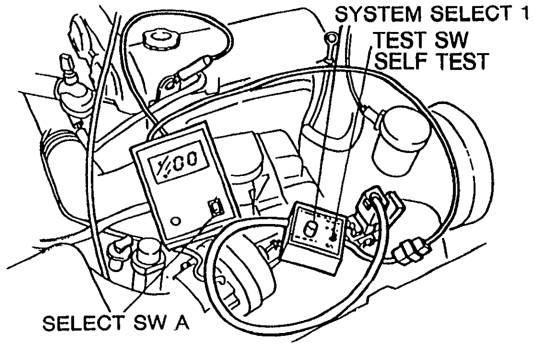
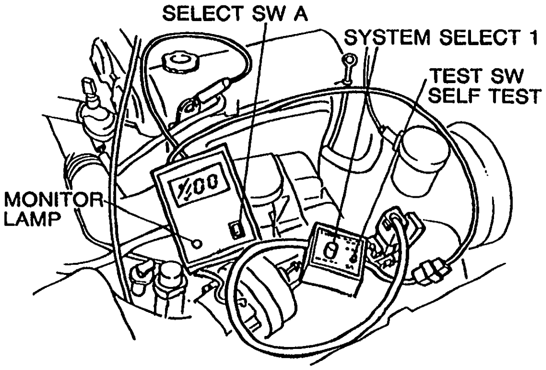
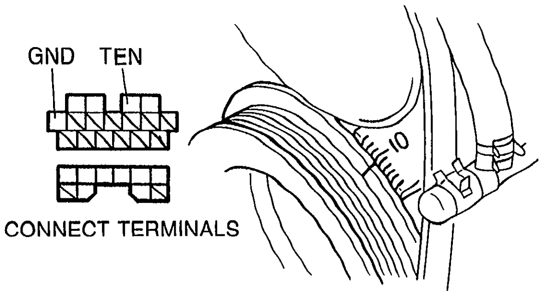
<table>
<tr><td>13</td><td colspan="3">ROUGH IDLE JUST AFTER STARTING</td></tr>
<tr><td>DESCRIPTION</td><td colspan="3">• Engine starts normally but vibrates excessively just after starting</td></tr>
<tr><td colspan="4">[TROUBLESHOOTING HINTS]
① Fuel injection control and idle speed control malfunction
• Start signal not input to ECU
② Idle speed misadjustment
③ Ignition timing misadjustment</td></tr>
<tr><td>STEP</td><td colspan="2">INSPECTION</td><td>ACTION</td></tr>
<tr><td rowspan="3">1</td><td rowspan="3">Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ page F–78
 </td><td>Yes</td><td>Go to next step</td></tr>
<tr><td rowspan="2">No</td><td>Malfunction Code No. displayed
Check for cause (Refer to specified check sequence) ☞ page F–80</td></tr>
<tr><td>"88" flashes
Check ECU terminal 1F voltage ☞ page F–128
Voltage: Approx. 12V (Ignition switch ON)
⇨ If OK, replace ECU ☞ page F–127
⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ page F–7</td></tr>
<tr><td rowspan="3">2</td><td rowspan="3">Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ page F–89


SELECT SW A
SYSTEM SELECT 1
TEST SW
SELF TEST
MONITOR LAMP

</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td rowspan="2">No</td><td>Lamp not ON/OFF with specified switch
Check for cause (Refer to specified check sequence) ☞ page F–90</td></tr>
<tr><td>Lamp always ON
Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ page F–7</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Check if ECU terminal 1C voltage is OK ☞ page F–128
Voltage: Approx. 10V (While cranking)</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for cause (Refer to "Check Point for Each Terminal") ☞ page F–131</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Check for correct ignition timing at idle ☞ page F–75
Ignition timing: 10° ± 1° BTDC
 </td><td>Yes</td><td>Check for correct idle speed ☞ page F–76
Idle speed: 850 ± 50 rpm
⇨ If OK, go to next step
⇨ If not OK, adjust idle speed ☞ page F–76</td></tr>
<tr><td>No</td><td>Adjust ☞ page F–75</td></tr>
<tr><td>5</td><td colspan="3">Try known good ECU and check if condition improves ☞ page F–127</td></tr>
</table>

05U0FX-030

14	IDLE MOVES UP AND DOWN
DESCRIPTION	• Engine speed up and down periodically at idle

[TROUBLESHOOTING HINTS]

① Fuel cut occurs at idle
  - Air valve not closing after warm-up and idle speed reaches to fuel cut speed

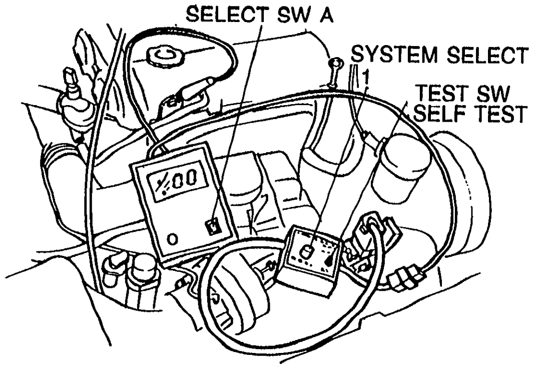
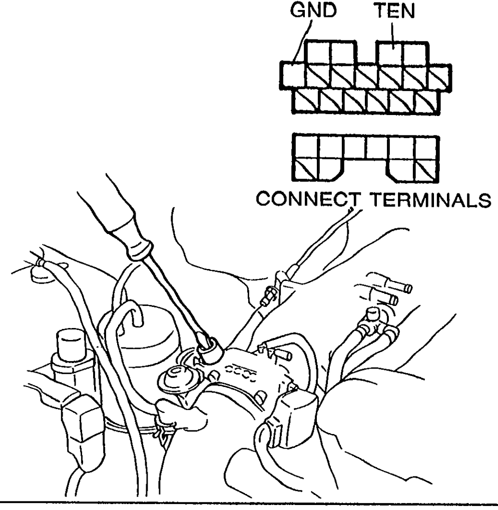
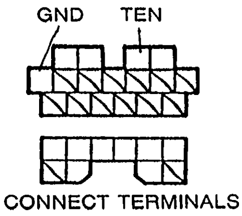
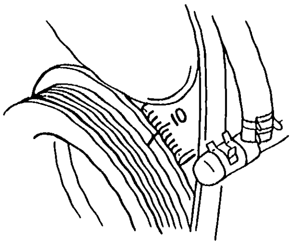
② Fuel injection amount fluctuating
  - Bad contact point inside airflow meter

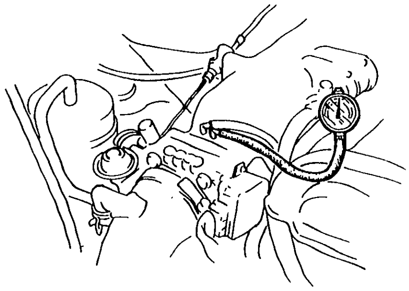
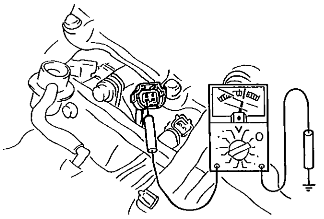
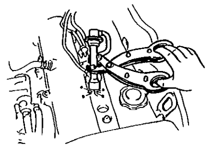
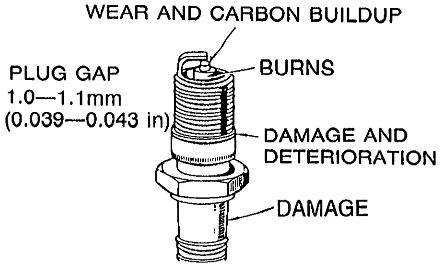
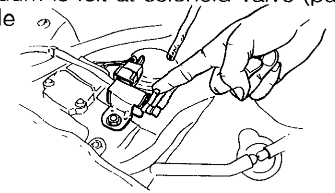
③ Air leakage of intake air system

④ Poor ignition spark

⑤ Air/Fuel mixture too rich
  - Evaporative emission control system malfunction

⑥ Low engine compression

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST 00	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check for correct idle speed ☞ **page F–76** **Idle speed: 850 ± 50 rpm** 	Yes	Go to next step
		No	Check if idle speed can be adjusted by turning air adjust screw ⇨ If OK, adjust idle speed ⇨ If not OK, check air valve ☞ **page F–99**
3	Check for correct ignition timing at idle ☞ **page F–75** **Ignition timing 10° ± 1° BTDC**  	Yes	Go to next step
		No	Adjust ☞ **page F–75**

STEP	INSPECTION		ACTION
4	Check for correct intake manifold vacuum at idle **Intake manifold vacuum:** **More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	**Low vacuum** Check for air leakage of intake air system ☞ **page F–93**
5	Check for injector operating sound at idle with sound scope or screwdriver	Yes	Go to Step 7
		No	Go to Step 6
6	Check if approx. 12V exists at injector connector (W/R) wire 	Yes	Check if injector resistance is OK ☞ **page F–112** **Resistance: Approx. 14Ω** ⇨ If OK, check wiring between ECU and injector ☞ **page F–7** ⇨ If not OK, replace injector ☞ **page F–112**
		No	Check wiring between ECU and injector ☞ **page F–7**
7	Disconnect each high-tension lead at idle and check if engine speed decreases equally each time 	Yes	Disconnect each injector connector at idle and check if engine speed decreases equally each time ⇨ If OK, go to Step 9 ⇨ If not OK, check injector for fuel leakage ☞ **page F–113**
		No	Go to Step 8
8	Check if spark plugs are OK  WEAR AND CARBON BUILDUP PLUG GAP 1.0—1.1mm (0.039—0.043 in) BURNS DAMAGE AND DETERIORATION DAMAGE	Yes	Check for correct engine compression ☞ **page B–10** ⇨ If OK, replace injector ☞ **page F–112** ⇨ If not OK, check for cause (Refer to Section B) ☞ **page B–10**
		No	Repair, clear, or replace ☞ **page G–20**
9	Check if ECU terminal voltages are OK (2D, 2Q and 2X) ☞ **page F–128**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**
10	Check if vacuum is felt at solenoid valve (purge control) at idle 	Yes	Check solenoid valve ☞ **page F–119**
		No	Go to next step
11	Try known good ECU and check if condition improves ☞ **page F–127**		

05U0FX-031

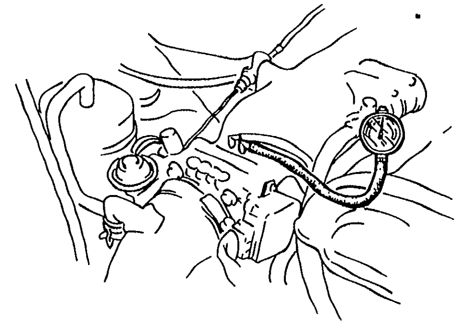
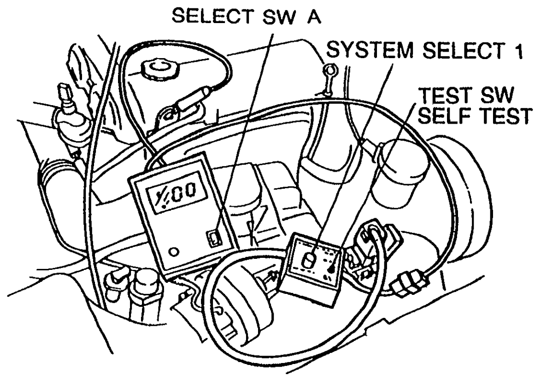
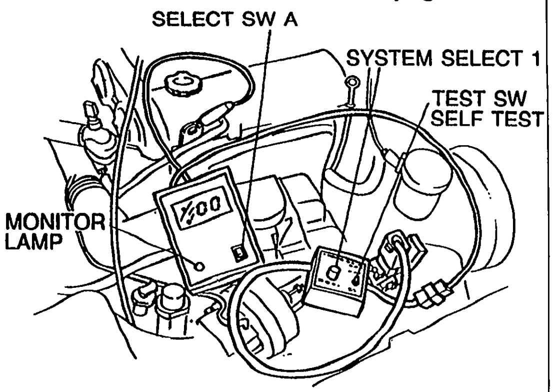
15	ENGINE STALLS AT IDLE — ALWAYS
DESCRIPTION	• Engine starts normally but vibrates excessively and stalls at idle in every condition

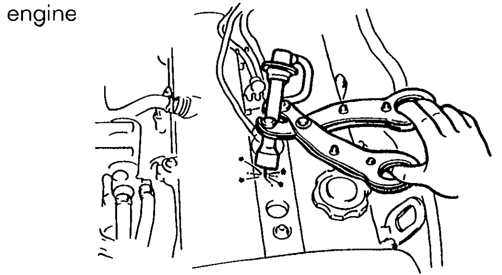
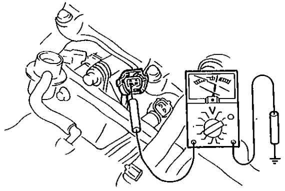
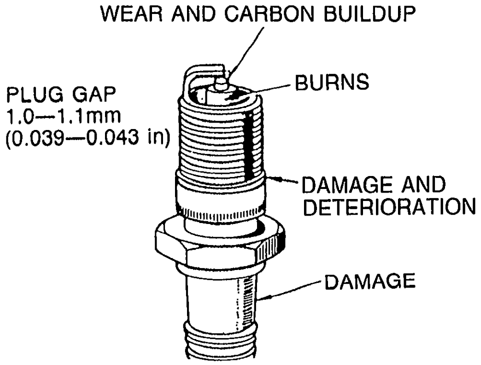
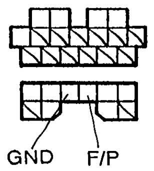
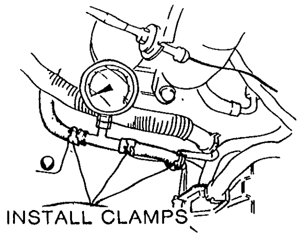
[TROUBLESHOOTING HINTS]

① Incorrect idle speed
- Idle speed misadjustment
- Idle speed control malfunction

② Air/Fuel mixture too rich or lean
- Injector clogged or inoperative
- Low fuel line pressure
- Low intake air amount or air leakage

③ Poor ignition spark

STEP	INSPECTION		ACTION
1	Check for correct intake manifold vacuum at idle **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**
2	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go to next step
		No	Replace air cleaner element ☞ **page F–92**
3	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST 00	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
4	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP 00	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**

STEP	INSPECTION		ACTION
5	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**
6	Check if strong blue spark is visible at each disconnected high-tension lead while cranking engine 	Yes	Go to next step
		No	Check ignition system (Refer to Troubleshooting "Misfire") ☞ **page G–18**
7	Check for injector operating sound at each injector at idle	Yes	Go to Step 9
		No	Go to Step 8
8	Check if approx. 12V exists at injector connector (W/R) wire with ignition switch ON 	Yes	Check if injector resistance is OK ☞ **page F–112** **Resistance: Approx. 14Ω** ⇨ If OK, check wiring between injector and ECU ⇨ If not OK, replace injector ☞ **page F–112**
		No	Check wiring between main relay and injector ☞ **page F–7**
9	Check if spark plugs are OK  WEAR AND CARBON BUILDUP PLUG GAP 1.0—1.1mm (0.039—0.043 in) BURNS DAMAGE AND DETERIORATION DAMAGE	Yes	Go to next step
		No	Repair or replace ☞ **page G–20**
10	Connect diagnosis connector terminals F/P and GND with jumper wire and check for correct fuel line pressure with ignition switch ON ☞ **page F–103** **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm^2, 38—46 psi)**  	Yes	Go to next step
		No	**Low pressure** Check fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump to pressure regulator If not clogged, check for fuel pump maximum pressure ☞ **page F–108**
11	Try known good ECU and check if condition improves ☞ **page F–127**		

05U0FX-032

16 ENGINE STALLS AT IDLE — BEFORE WARM-UP

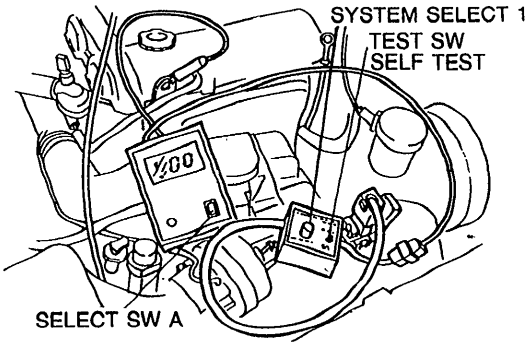
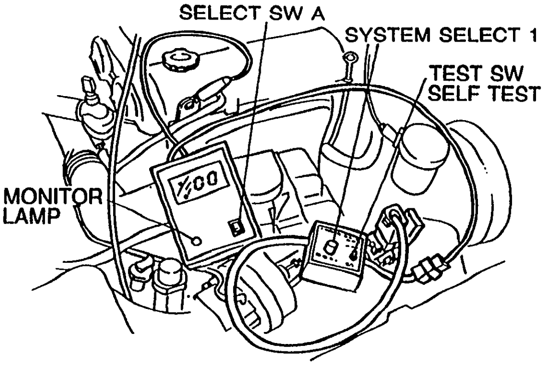
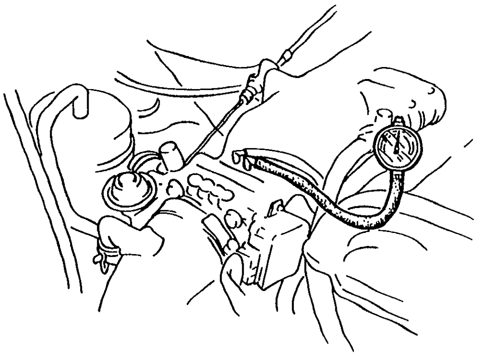
DESCRIPTION	• Engine starts normally but vibrates excessively and stalls at idle before warm-up

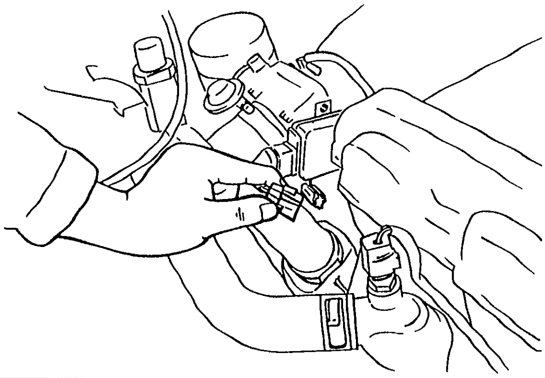
[TROUBLESHOOTING HINTS]

① Low intake air amount
- Idle speed control malfunction
- Air cleaner element clogged
- Airflow meter stuck

② Air/Fuel mixture too lean
- Air leakage of intake air system

③ Poor atomization of fuel
- Low RVP (summer) fuel used in cold weather

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  	No	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp with ignition switch ON ☞ **page F–89**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
3	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**
4	Check for correct intake manifold vacuum at idle **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**

STEP	INSPECTION		ACTION
5	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go to next step
		No	Replace air cleaner element ☞ **page F–92**
6	Disconnect ISC valve connector when engine is cold and note idle speed Check if engine speed decreases after warm-up 	Yes	Go to next step
		No	Check air valve ☞ **page F–99**
7	Try known good ECU and check if condition improves ☞ **page F–127**	Yes	Replace ECU ☞ **page F–127**
		No	Change fuel to another brand

05U0FX-033

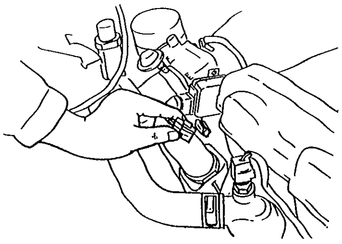
17 ENGINE STALLS AT IDLE — AFTER WARM-UP

DESCRIPTION	• Engine runs normally at idle during warm-up but becomes rough and stalls after warm-up

[TROUBLESHOOTING HINTS]

① Air/Fuel mixture too lean
- Air leakage of intake air system

② Low intake air amount
- Idle speed control malfunction

STEP	INSPECTION		ACTION
1	Check if air is leaked from intake air system component ☞ **page F–93**	Yes	Repair or replace ☞ **page F–93**
		No	Go to next step
2	Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC Valve 	Yes	Go to next step
		No	Replace ISC valve ☞ **page F–99**
3	Go to troubleshooting No.10 "LOW IDLE SPEED/ROUGH IDLE-AFTER WARM-UP" ☞ **page F–34**		

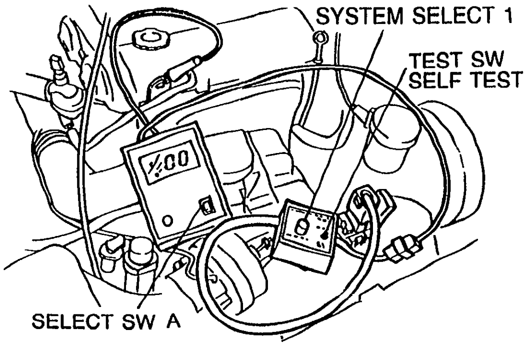
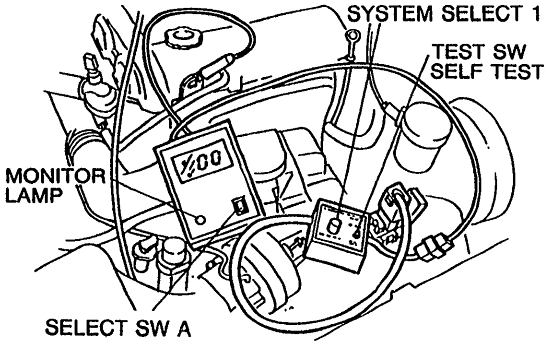
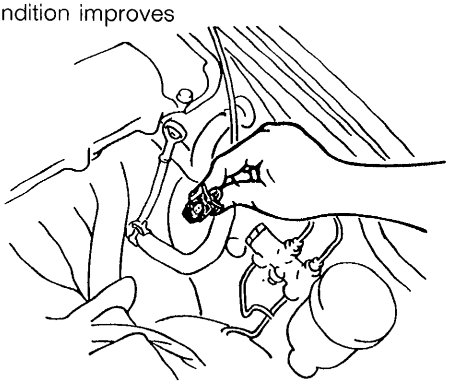
05U0FX-034

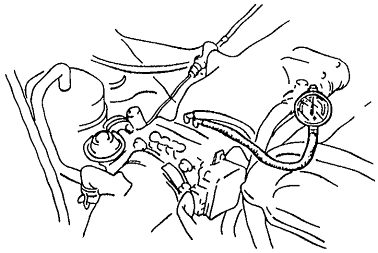
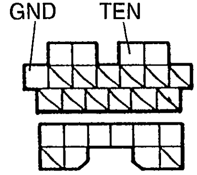
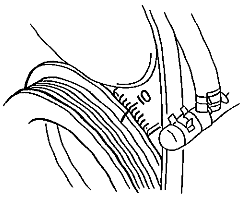
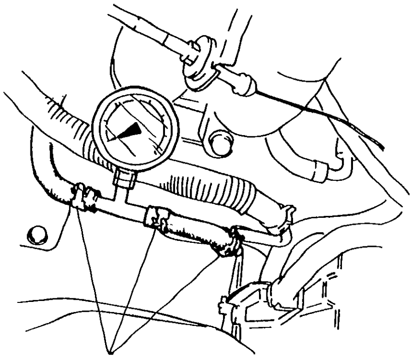
18	ENGINE STALLS DURING START-UP
DESCRIPTION	• Engine unexpectedly stops running while starting

[TROUBLESHOOTING HINTS]

① Misfire occurs when depressing accelerator
- Air/Fuel mixture too rich or too lean
- Incorrect ignition timing
- Weak ignition

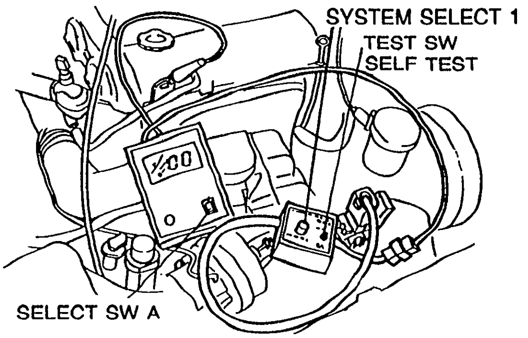
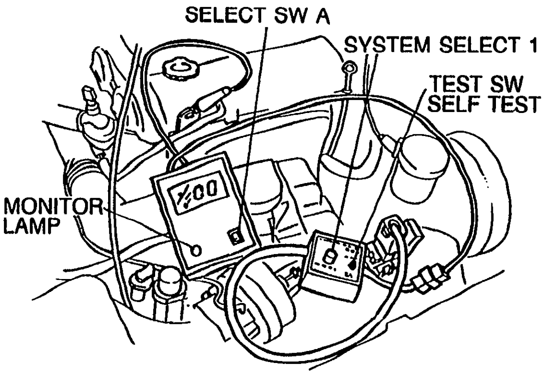
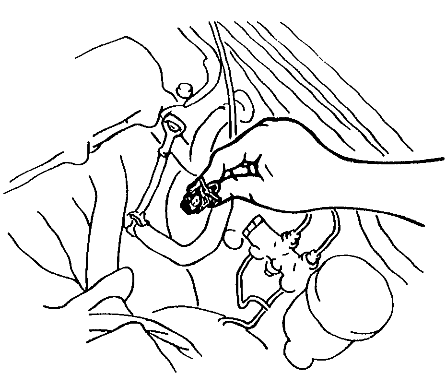
② Lack of engine torque for start-up
- Air/Fuel mixture too rich or too lean
- Low intake air amount
- Low engine compression

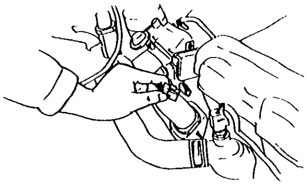
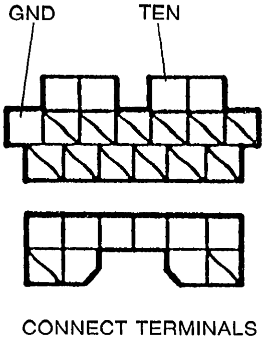
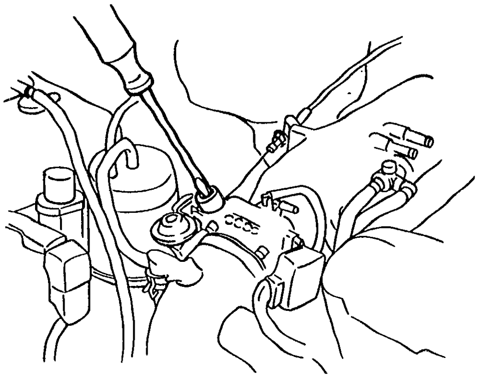
STEP	INSPECTION		ACTION
1	Check if brakes are dragging ☞ **page P–29**	Yes	Repair ☞ **page P–29**
		No	Go to next step
2	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  	No	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–78**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
3	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP SELECT SW A	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
4	Disconnect oxygen sensor connector and check if condition improves 	Yes	Check oxygen sensor ☞ **page F–138**
		No	Go to next step
5	Check if ECU terminal voltages are OK ☞ **page F–128**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–131**

STEP	INSPECTION		ACTION
6	Check if throttle linkage is correctly installed and operates freely	Yes	Go to next step
		No	Correct, clean, or replace as required any binding or damaged linkage and adjust cable deflection at throttle body ☞ **page F–96**
7	Check for correct intake manifold vacuum at idle **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**
8	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go to next step
		No	Replace air cleaner element ☞ **page F–92**
9	Check for correct ignition timing at idle ☞ **page F–76** **Ignition timing: 10° ± 1° BTDC**  CONNECT TERMINALS 	Yes	Check if ignition timing advances when accelerating ⇨ If advances, go to next step ⇨ If no advance, replace ECU ☞ **page F–127**
		No	Adjust ☞ **page F–76**
10	Check for correct fuel line pressure at idle ☞ **page F–103** **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm², 38—46 psi) (Vacuum hose to pressure regulator disconnected)**  INSTALL CLAMPS	Yes	Check if fuel line pressure decreases when accelerating quickly ⇨ If decreases, check fuel pump maximum pressure ☞ **page F–108** If OK, check fuel line and filter for clogging ⇨ If no decrease, go to next step
		No	**Low pressure** Check for fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure ☞ **page F–108**
			High pressure Check if fuel return line is clogged ⇨ If OK, replace pressure regulator ☞ **page F–112** ⇨ If not OK, replace
11	Check for correct engine compression ☞ **page B–10** **Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm², 192—135 psi) - 300 rpm**	Yes	Go to next step
		No	Check engine condition ☞ **page B–10** • Worn piston, piston rings or cylinder wall • Defective cylinder head gasket • Distorted cylinder head • Improper valve seating • Valve sticking in guide
12	Try known good ECU and check if condition improves ☞ **page F–127**		

19	ENGINE STALLS ON DECELERATION
DESCRIPTION	• Engine unexpectedly stops running while decelerating or after deceleration

[TROUBLESHOOTING HINTS]
Engine speed drops too much when releasing accelerator
① Idle speed control malfunction
② Fuel cut control malfunction
③ Engine feedback control malfunction
④ Idle speed misadjustment

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78** 	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
3	Disconnect oxygen sensor connector and check if condition improves 	Yes	Check oxygen sensor ☞ **page F–138**
		No	Go to next step
4	Check if ECU terminal voltages are OK (2D, 2O, 2U, 2V and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**

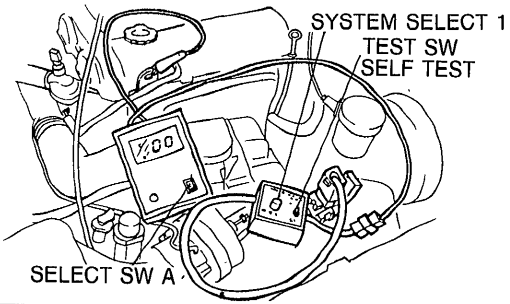
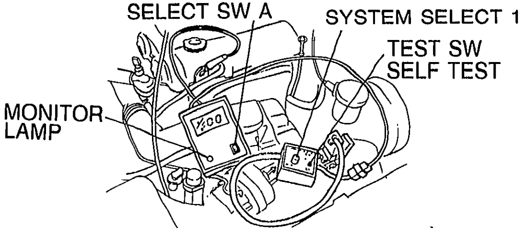
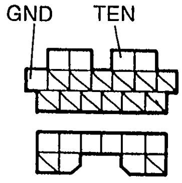
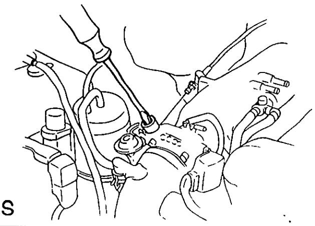
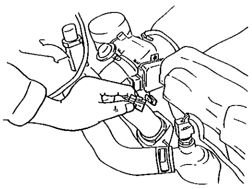
STEP	INSPECTION		ACTION
5	Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC valve 	Yes	Go to next step
		No	Replace ISC valve ☞ **page F-99**
6	Check for correct idle speed ☞ **page F-76** **Idle speed: 850 ± 50 rpm**  	Yes	Go to next step
		No	Adjust ☞ **page F-76**
7	Try known good ECU and check if condition improves ☞ **page F-127**		

05U0FX-036

20	ENGINE STALLS AT IDLE — WHEN A/C, P/S, OR E/L ON
DESCRIPTION	• Engine unexpectedly stops running at idle when A/C, P/S, or E/L ON • A/C, P/S, headlight, blower fan and electric cooling fan OK

[TROUBLESHOOTING HINTS]

① Idle speed control malfunction
- No input signal from switch
- Idle speed misadjustment
- ISC valve stuck

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  SYSTEM SELECT 1 TEST SW SELF TEST 00 SELECT SW A	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP 00	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–89**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
3	Check if ECU terminal voltages are OK (1G, 1P, 1U, 2D, 2Q and 2W) ☞ **page F–128**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–131**
4	Check for correct idle speed ☞ **page F–76** **Idle speed: 850 ± 50 rpm**   CONNECT TERMINALS	Yes	Go to next step
		No	Adjust ☞ **page F–76**
5	Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC valve 	Yes	Go to next step
		No	Replace ISC valve ☞ **page F–99**
6	Try known good ECU and check if condition improves ☞ **page F–127**		

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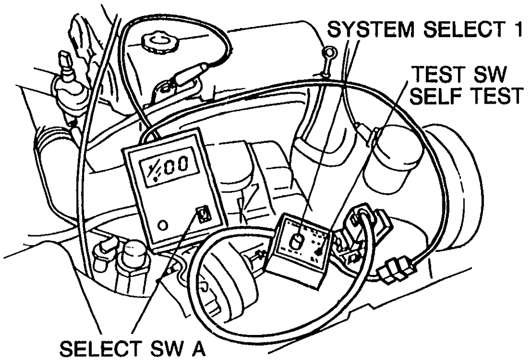
<table>
<tr><td>21</td><td colspan="4">ENGINE STALLS SUDDENLY (INTERMITTENT)</td></tr>
<tr><td>DESCRIPTION</td><td colspan="4">• Engine intermittently stops running
• Before stalling, engine condition OK</td></tr>
<tr><td colspan="5">[TROUBLESHOOTING HINTS]
① Intermittently no spark or no fuel injection
• Poor connection in wiring harness</td></tr>
<tr><td>STEP</td><td>INSPECTION</td><td></td><td colspan="2">ACTION</td></tr>
<tr><td rowspan="3">1</td><td rowspan="3">Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ page F–78


SYSTEM SELECT 1
TEST SW
SELF TEST
00
SELECT SW A

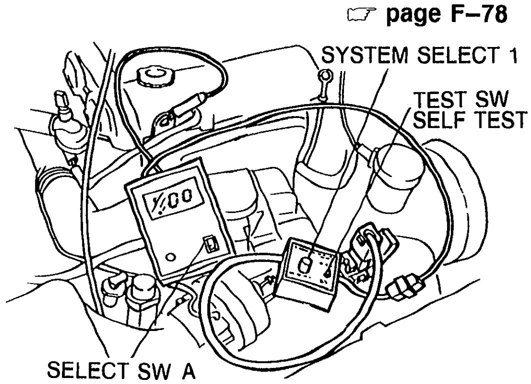
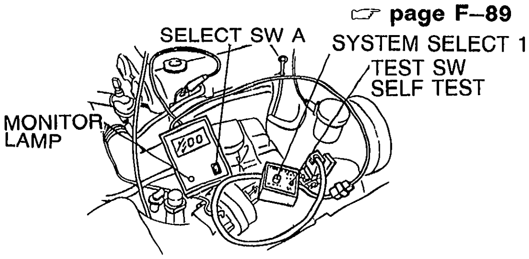
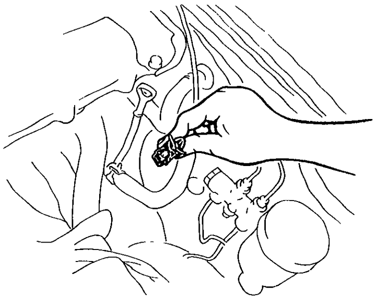
</td><td>Yes</td><td colspan="2">Go to next step</td></tr>
<tr><td rowspan="2">No</td><td colspan="2">Malfunction Code No. displayed
Check for cause (Refer to specified check sequence) ☞ page F–80
Note
When checking wiring harness and connectors, tap, move, and wiggle suspect sensor and/or harness to recreate problem</td></tr>
<tr><td colspan="2">"88" flashes
Check ECU terminal 1F voltage ☞ page F–128
Voltage: Approx. 12V (Ignition switch ON)
⇨ If OK, replace ECU ☞ page F–127
⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ page F–7</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Check if ECU terminal voltages are OK (1B, 2A, 2B and 2C) ☞ page F–128
Note
When checking voltages, tap, move, and wiggle harness and connector</td><td>Yes</td><td colspan="2">Go to Troubleshooting No.2 "CRANKS NORMALLY BUT WILL NOT START (NO COMBUSTION)" ☞ page F–82</td></tr>
<tr><td>No</td><td colspan="2">Check for cause (Refer to "Check Point for Each Terminal) ☞ page F–131</td></tr>
</table>

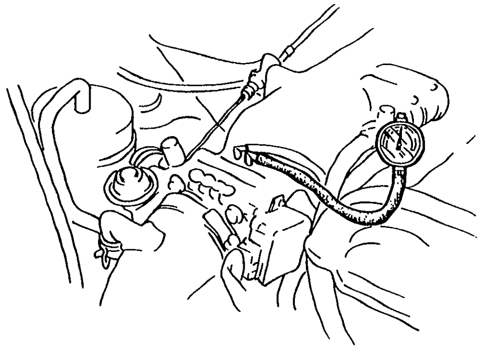
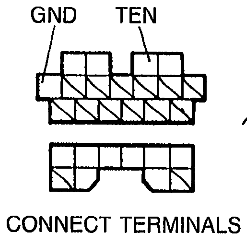
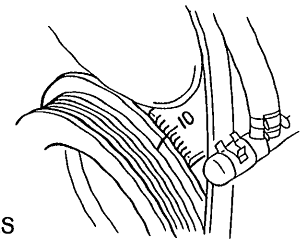
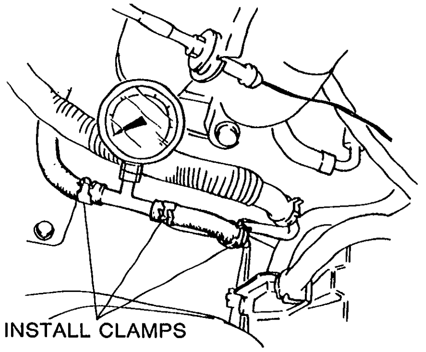
05U0FX-038

22	HESITATES/STUMBLES ON ACCELERATION
DESCRIP-TION	• Flat spot occurs just after accelerator depressed or mild jerking occurs during acceleration

[TROUBLESHOOTING HINTS]

① Air/Fuel mixture leaning when depressing accelerator
- Fuel injection control malfunction
  (Correction for accelerating condition)
- Air leakage of intake air system
- Fuel line pressure low
- Spark advance control malfunction

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78** 	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
3	Disconnect oxygen sensor connector and check if condition improves 	Yes	Check oxygen sensor ☞ **page F–138**
		No	Go to next step
4	Check if ECU terminal voltages are OK ☞ **page F–128**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–131**
5	Check if throttle linkage is correctly installed and operates freely	Yes	Go to next step
		No	Correct, clean, or replace as required any binding or damaged linkage and adjust cable deflection at throttle body ☞ **page F–96**

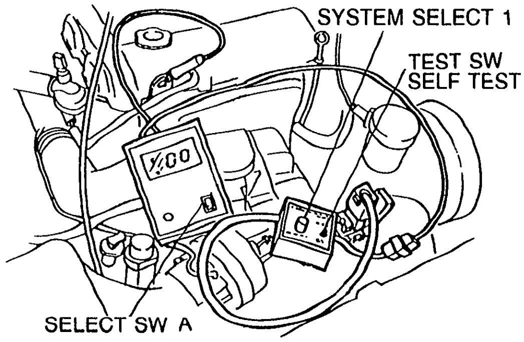
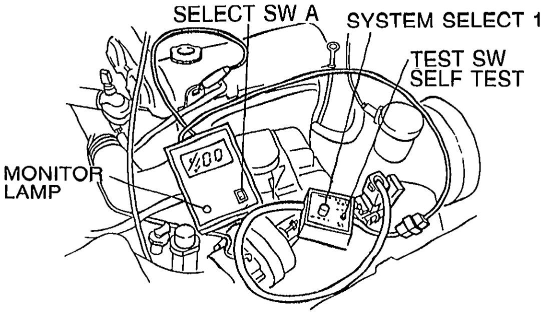
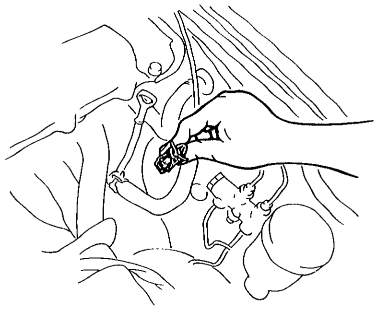
STEP	INSPECTION		ACTION
6	Check if air duct and air hoses are correctly installed ☞ **page F–76**	Yes	Go to next step
		No	Repair ☞ **page F–92**
7	Check for correct intake manifold vacuum at idle **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**
8	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go to next step
		No	Replace air cleaner element ☞ **page F–92**
9	Check for correct ignition timing at idle ☞ **page F–75** **Ignition timing: 10° ± 1° BTDC**   	Yes	Check if ignition timing advances when accelerating ⇨ If advances, go to next step ⇨ If no advance, replace ECU ☞ **page F–127**
		No	Adjust ☞ **page F–75**
10	Check for correct fuel line pressure at idle ☞ **page F–103** **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm^2, 38—46 psi) (Vacuum hose to pressure regulator disconnected)**  	Yes	Check if fuel line pressure decreases when accelerating quickly ⇨ If decreases, check fuel line and filter for clogging ⇨ If no decrease, go to next step
		No	**Low pressure** Check for fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure ☞ **page F–108**
11	Check if exhaust system is restricted ☞ **page F–115**	Yes	Repair or replace ☞ **page F–115**
		No	Go to next step
12	Try known good ECU and check if condition improves ☞ **page F–127**		

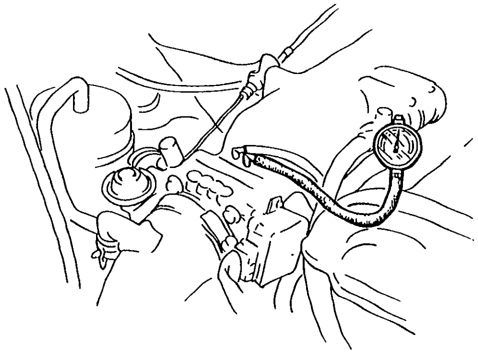
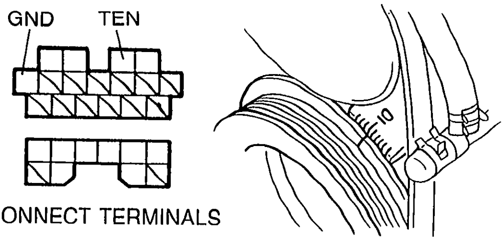
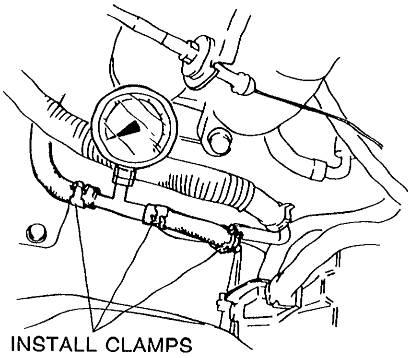
05U0FX-039

23	SURGES WHILE CRUISING
DESCRIPTION	• Unexpected change in engine speed which is usually repetitive

[TROUBLESHOOTING HINTS]

① Air/Fuel mixture too lean or too rich
- Fuel injection control malfunction
- Air leakage of intake air system
- Fuel line pressure low
- Evaporative emission control malfunction
- Spark advance control malfunction

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  SYSTEM SELECT 1 TEST SW SELF TEST SELECT SW A 00	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP 00	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
3	Disconnect oxygen sensor connector and check if condition improves 	Yes	Check oxygen sensor ☞ **page F–138**
		No	Go to next step
4	Check if ECU terminal voltages are OK ☞ **page F–128**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–131**
5	Check if throttle linkage is correctly installed and operates freely	Yes	Go to next step
		No	Correct, clean, or replace as required any binding or damaged linkage, and adjust cable deflection at throttle body ☞ **page F–96**

STEP	INSPECTION		ACTION
6	Check for correct intake manifold vacuum **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**
7	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go to next step
		No	Replace air cleaner element ☞ **page F–92**
8	Check for correct ignition timing at idle ☞ **page F–75** **Ignition timing: 10° ± 1° BTDC**  	Yes	Check if ignition timing advances when accelerating ⇨ If advances, go to next step ⇨ If no advance, replace ECU ☞ **page F–127**
		No	Adjust ☞ **page F–75**
9	Check for correct fuel line pressure at idle ☞ **page F–103** **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm^2, 38—46 psi) (Vacuum hose to pressure regulator disconnected)**  	Yes	Check if fuel line pressure decreases when accelerating quickly ⇨ If decreases, check fuel line and filter for clogging ⇨ If no decrease, go to next step
		No	**Low pressure** Check for fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure ☞ **page F–108**
10	Check if exhaust system is restricted ☞ **page F–115**	Yes	Repair or replace ☞ **page F–115**
		No	Go to next step
11	Try known good ECU and check if condition improves ☞ **page F–127**		

05U0FX-040

24	LACK OF POWER
DESCRIPTION	• Performance poor under load • Reduced maximum speed

[TROUBLESHOOTING HINTS]

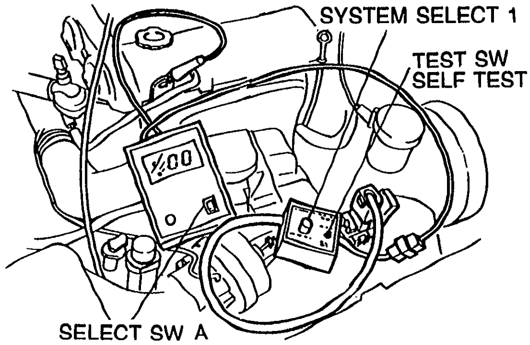
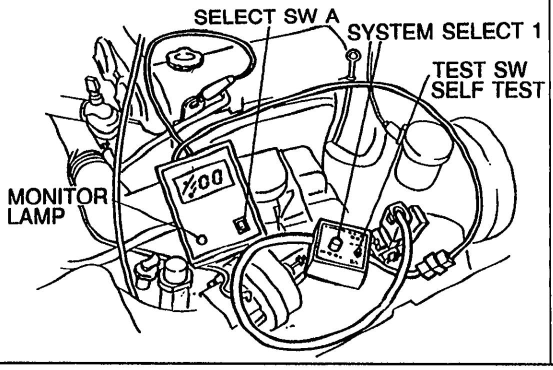
① Factors other than engine malfunction
  - Clutch slipping
  - Brake dragging
  - Low tire pressure
  - Unrecommended tire size
  - Overloaded

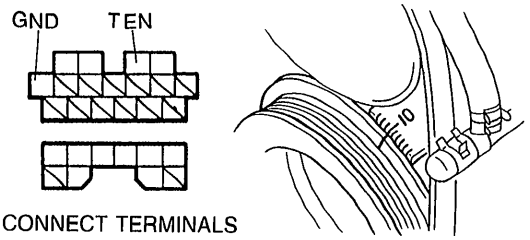
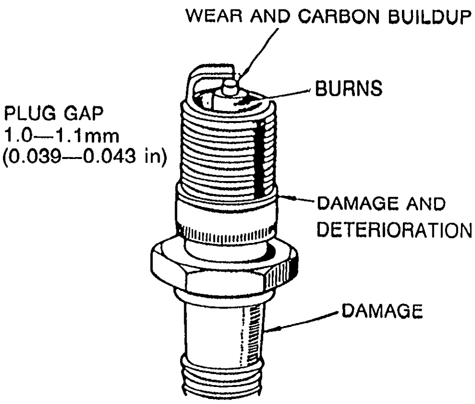
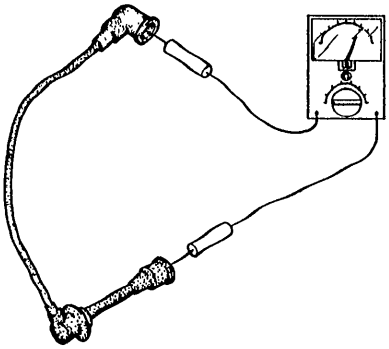
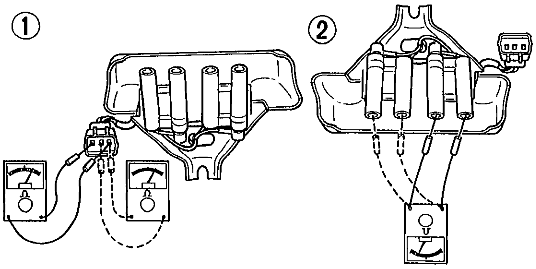
② Low intake air amount
  - Throttle valve not open fully
  - Clogged intake air system

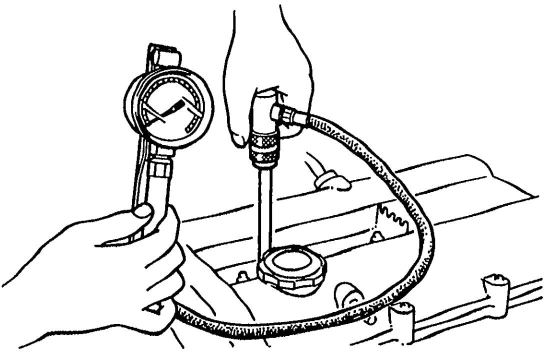
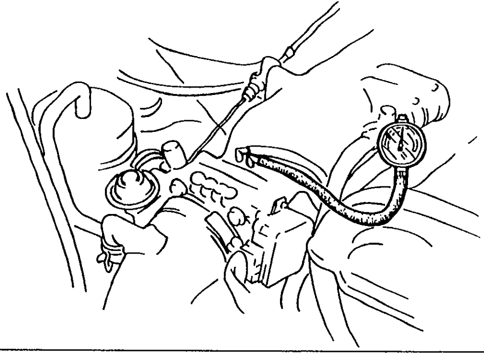
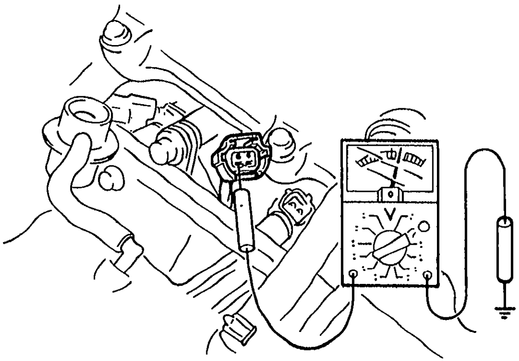
③ Air/Fuel mixture too lean or too rich
  - Fuel line pressure low or high
  - Insufficient fuel injection

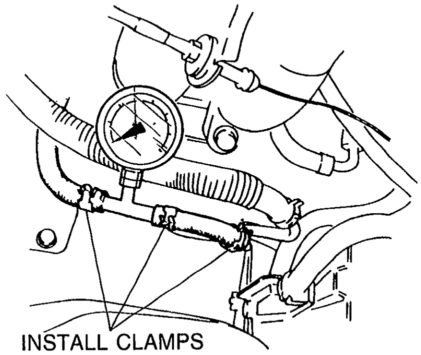
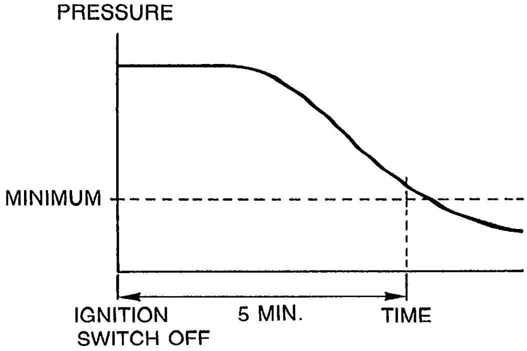
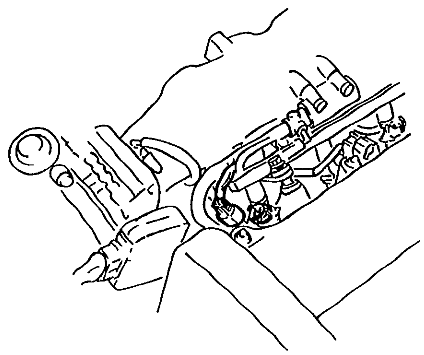
④ Poor ignition

⑤ Low engine compression

STEP	INSPECTION		ACTION
1	Check factors other than engine • Clutch slipping ☞ **page H–3** • Brake dragging ☞ **page P–27** • Low tire pressure ☞ **page Q–3** • Unrecommended tire size ☞ **page Q–2**	Yes	Go to next step
		No	Repair
2	Check if throttle valve fully opens when depressing accelerator fully	Yes	Go to next step
		No	Check if accelerator cable is correctly installed ☞ **page F–96** ⇨ If OK, check throttle body ☞ **page F–94** ⇨ If not OK, install accelerator cable correctly ☞ **page F–96**
3	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
4	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST 00 MONITOR LAMP	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**

STEP	INSPECTION		ACTION
5	Check for correct ignition timing at idle ☞ **page F–75** **Ignition timing: 10° ± 1° BTDC**  GND TEN 10 CONNECT TERMINALS	Yes	Check if ignition timing advances when accelerating ⇨ If advances, go to next step ⇨ If no advance, check ECU terminal voltages ☞ **page F–127**
		No	Adjust ☞ **page F–75**
6	Check if spark plugs are OK  WEAR AND CARBON BUILDUP BURNS PLUG GAP 1.0—1.1mm (0.039—0.043 in) DAMAGE AND DETERIORATION DAMAGE	Yes	Go to next step
		No	Repair, clean, or replace ☞ **page G–20**
7	Check if resistance of high-tension leads are OK **Resistance: 16 kΩ per 1m (3.28 ft)** 	Yes	Go to next step
		No	Replace ☞ **page G–22**
8	Check if resistance of ignition coil is OK ☞ **page G–21** **Resistance (at 20°C [68°F]):** ① **Primary coil........ 0.78—0.94Ω** ② **Secondary coil.... 11.2—15.2 kΩ** 	Yes	Go to next step
		No	Replace ☞ **page G–21**

STEP	INSPECTION		ACTION
9	Check for correct engine compression ☞ **page B–10** **Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm^2, 192—135 psi) - 300 rpm** 	Yes	Go to next step
		No	Check engine condition ☞ **page B–10** •Worn piston, piston rings or cylinder wall •Defective cylinder head gasket •Distorted cylinder head •Improper valve seating •Valve sticking in guide
10	Check for correct intake manifold vacuum at idle **Intake manifold vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**
11	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go to next step
		No	Replace air cleaner element ☞ **page F–92**
12	Check for injector operating sound at idle	Yes	Go to Step 14
		No	Go to Step 13
13	Check if approx. 12V exists at injector connector (W/R) wire with ignition switch ON 	Yes	Check if injector resistance is OK ☞ **page F–99** **Resistance: Approx. 14Ω** ⇨ If OK, check wiring between ECU and injector ☞ **page F–7** ⇨ If not OK, check injector for fuel leakage ☞ **page F–113**
		No	Check wiring between ECU and injector ☞ **page F–7**
14	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**

STEP	INSPECTION		ACTION
15	Check for correct fuel line pressure at idle ☞ **page F–103** **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm², 38—46 psi)** **(Vacuum hose to pressure regulator disconnected)**  	Yes	Check if fuel line pressure decreases when accelerating quickly ⇨ If decreases, check fuel pump maximum pressure ☞ **page F–108** If OK, check fuel line and filter for clogging ⇨ If no decreases, go to next step
		No	**Low pressure** Check for fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator ☞ **page F–112** If not clogged, check fuel pump maximum pressure ☞ **page F–108**
16	Run engine several minutes at idle and check if fuel line pressure is held after ignition switch turned OFF ☞ **page F–102** **Fuel line pressure: More than 147 kPa (1.5 kg/cm², 21 psi) for 5 min.**  	Yes	**High pressure** Check if vacuum hose to pressure regulator is damaged or poorly connected ⇨ If OK, replace pressure regulator ☞ **page F–112** ⇨ If not OK, repair or replace hose
		No	Check injector for fuel leakage ☞ **page F–113**
17	Disconnect each injector connector at idle and check if engine speed decreases equally each time 	Yes	Go to next step
		No	Replace injector ☞ **page F–112**
18	Try known good ECU and check if condition improves ☞ **page F–127**		

05U0FX-041

25	POOR ACCELERATION
DESCRIPTION	• Performance poor while accelerating

[TROUBLESHOOTING HINTS]

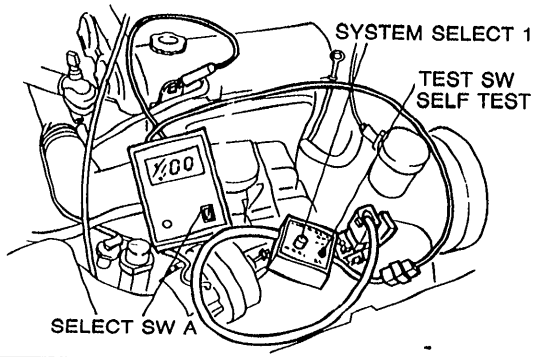
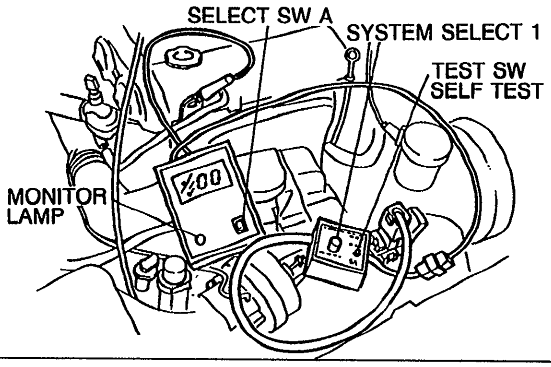
① Factors other than engine malfunction
- Clutch slipping
- Brake dragging
- Low tire pressure
- Unrecommended tire size
- Overloaded

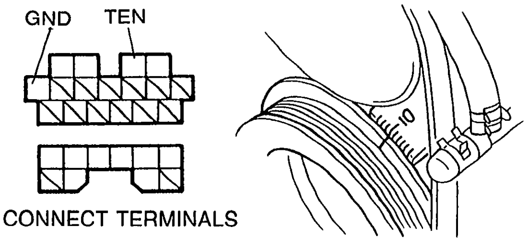
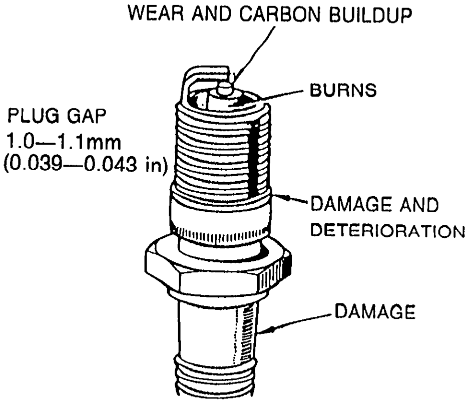
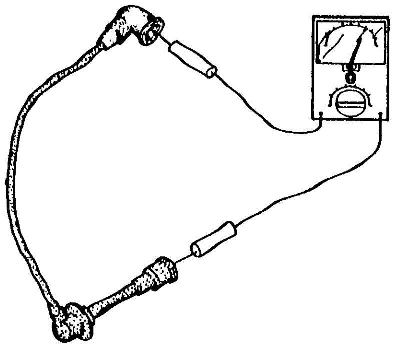
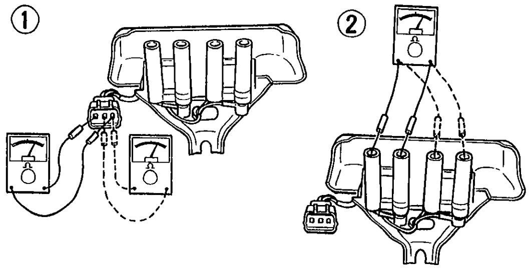
② Low intake air amount
- Throttle valve not open fully
- Clogged intake air system

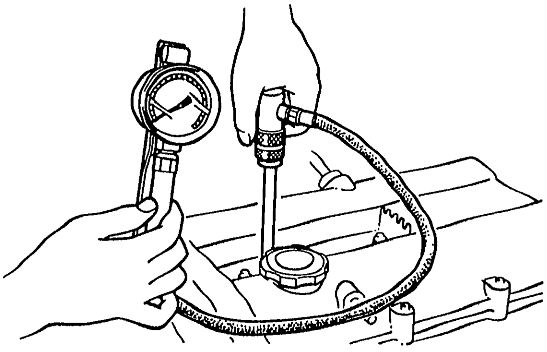
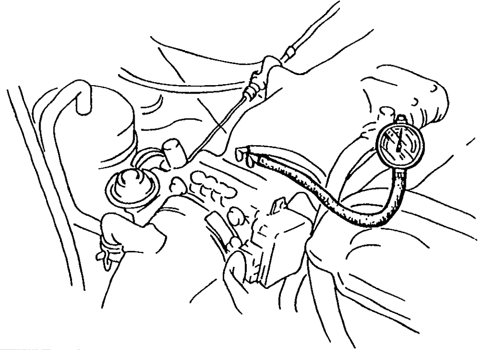
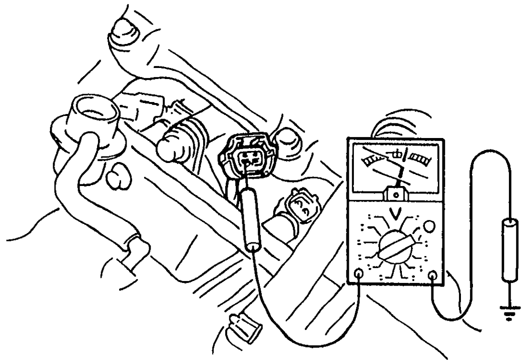
④ Air/Fuel mixture too lean or too rich
- Fuel line pressure low or high
- Insufficient fuel injection

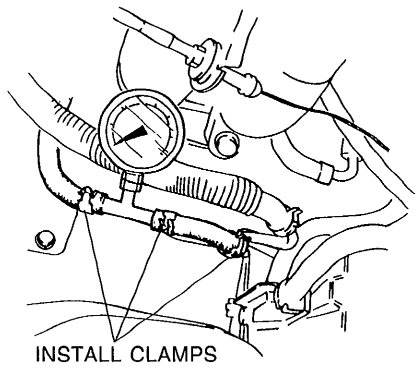
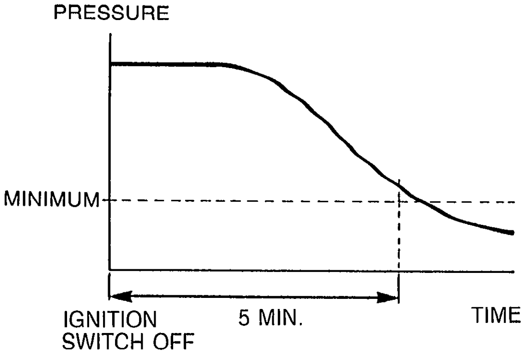
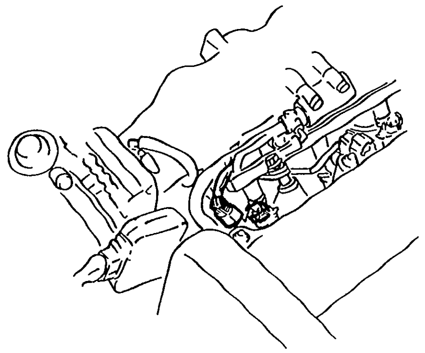
④ Poor ignition

⑤ Low engine compression

STEP	INSPECTION		ACTION
1	Check factors other than engine • Clutch slipping ☞ **page H–3** • Brake dragging ☞ **page P–27** • Low tire pressure ☞ **page Q–3** • Unrecommended tire size ☞ **page Q–2**	Yes	Go to next step
		No	Repair
2	Check if throttle valve fully opens when depressing accelerator fully	Yes	Go to next step
		No	Check if accelerator cable is correctly installed ☞ **page F–96** ⇨ If OK, check throttle body ☞ **page F–94** ⇨ If not OK, install accelerator cable correctly ☞ **page F–96**
3	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
4	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**

STEP	INSPECTION		ACTION
5	Check for correct ignition timing at idle ☞ **page F–75** **Ignition timing: 10° ± 1° BTDC**  GND TEN CONNECT TERMINALS	Yes	Check if ignition timing advances when accelerating ⇨ If advances, go to next step ⇨ If no advance, check ECU terminal voltages ☞ **page F–127**
		No	Adjust ☞ **page F–75**
6	Check if spark plugs are OK  WEAR AND CARBON BUILDUP BURNS PLUG GAP 1.0—1.1mm (0.039—0.043 in) DAMAGE AND DETERIORATION DAMAGE	Yes	Go to next step
		No	Repair, clean, or replace ☞ **page G–20**
7	Check if resistance of high-tension leads are OK **Resistance: 16 kΩ per 1m (3.28 ft)** 	Yes	Go to next step
		No	Replace ☞ **page G–22**
8	Check if resistance of ignition coil is OK ☞ **page G–21** **Resistance (at 20°C [68°F]):** ① **Primary coil........ 0.78—0.94Ω** ② **Secondary coil.... 11.2—15.2 kΩ** 	Yes	Go to next step
		No	Replace ☞ **page G–21**

STEP	INSPECTION		ACTION
9	Check for correct engine compression ☞ **page B–10** **Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm^2, 192—135 psi) - 300 rpm** 	Yes	Go to next step
		No	Check engine condition ☞ **page B–10** • Worn piston, piston rings or cylinder wall • Defective cylinder head gasket • Distorted cylinder head • Improper valve seating • Valve sticking in guide
10	Check for correct intake manifold vacuum at idle **Intake manifold vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**
11	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go to next step
		No	Replace air cleaner element ☞ **page F–92**
12	Check for injector operating sound at idle	Yes	Go to Step 14
		No	Go to Step 13
13	Check if approx. 12V exists at injector connector (W/R) wire with ignition switch ON 	Yes	Check if injector resistance is OK ☞ **page F–112** **Resistance: Approx. 14Ω** ⇨ If OK, check wiring between ECU and injector ☞ **page F–7** ⇨ If not OK, check injector for fuel leakage ☞ **page F–113**
		No	Check wiring between ECU and injector ☞ **page F–7**
14	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**

STEP	INSPECTION		ACTION
15	Check for correct fuel line pressure at idle ☞ **page F–103** **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm^2, 38—46 psi) (Vacuum hose to pressure regulator disconnected)** 	Yes	Check if fuel line pressure decreases when accelerating quickly ⇨ If decreases, check fuel pump maximum pressure ☞ **page F–108** If OK, check fuel line and filter for clogging ⇨ If no decreases, go to next step
		No	**Low pressure** Check for fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If no clogged, check fuel pump maximum pressure ☞ **page F–108**
16	Run engine several minutes at idle and check if fuel line pressure is held after ignition switch turned OFF ☞ **page F–102** **Fuel line pressure: More than 147 kPa (1.5 kg/cm^2, 21 psi) for 5 min.** 	Yes	**High pressure** Check if vacuum hose to pressure regulator is damaged or poorly connected ⇨ If OK, replace pressure regulator ☞ **page F–112** ⇨ If not OK, repair or replace hose
		No	Check injector for fuel leakage ☞ **page F–113**
17	Disconnect each injector connector at idle and check if engine speed decreases equally each time 	Yes	Go to next step
		No	Replace injector ☞ **page F–112**
18	Try known good ECU and check if condition improves ☞ **page F–127**		

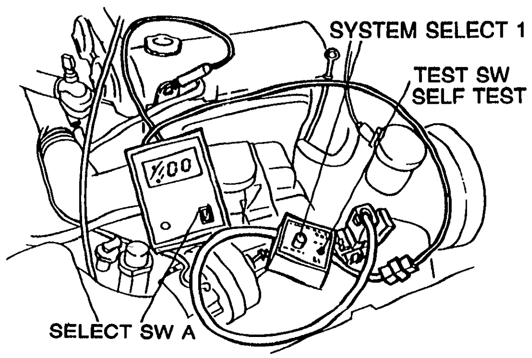
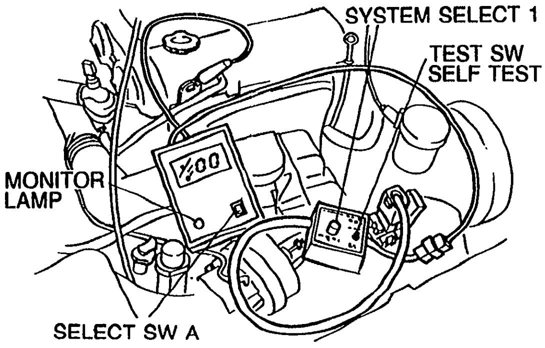
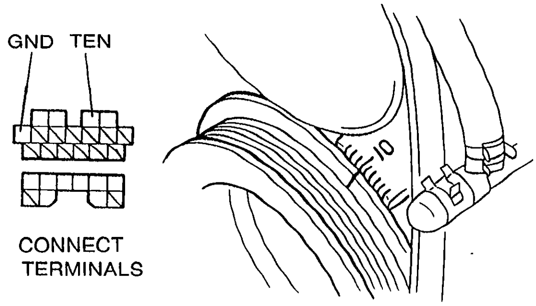
05U0FX-042

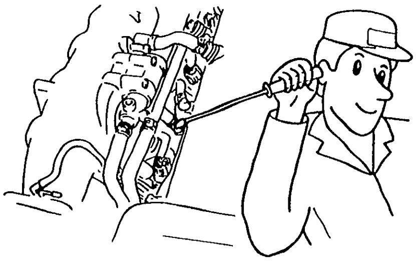
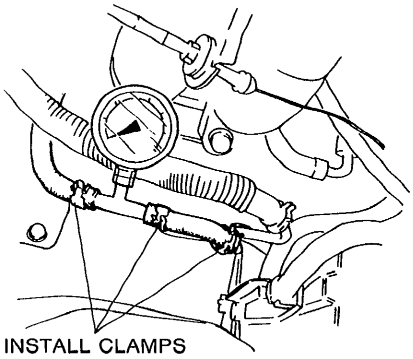
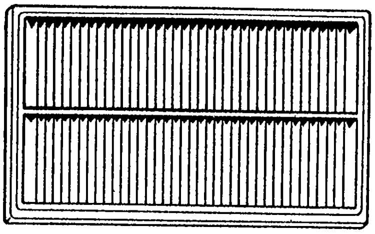
26	RUNS ROUGH ON DECELERATION/BACKFIRE
DESCRIP-TION	• Engine runs rough while decelerating and abnormal combustion occurs in exhaust system

[TROUBLESHOOTING HINTS]

① Air/Fuel mixture too rich

- Air cleaner element clogged
- Fuel injection control malfunction (Fuel cut control)
- Injector fuel leakage
- Ignition timing misadjustment

STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  SYSTEM SELECT 1 TEST SW SELF TEST 00 SELECT SW A	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp with ignition switch ON ☞ **page F–89**  SYSTEM SELECT 1 TEST SW SELF TEST 00 MONITOR LAMP SELECT SW A	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90**
			Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
3	Check for correct ignition timing at idle ☞ **page F–75** **Ignition timing: 10° ± 1° BTDC**  GND TEN CONNECT TERMINALS 10	Yes	Go to next step
		No	Adjust ☞ **page F–75**

STEP	INSPECTION		ACTION
4	Check if fuel cut operation is OK during deceleration **Fuel cut: Above 1,900 rpm after warm-up** 	Yes	Go to next step
		No	Try known good ECU ☞ **page F–127**
5	Run engine several minutes at idle and check if fuel line pressure is held after ignition switch turned OFF ☞ **page F–102** **Fuel line pressure: More than 147 kPa (1.5 kg/cm², 21 psi) for 5 min.** 	Yes	Go to next step
		No	Check injector for fuel leakage ☞ **page F–113**
6	Check if air cleaner element is clean ☞ **page F–75** 	Yes	Go to next step
		No	Replace ☞ **page F–75**
7	Try known good ECU and check if condition improves ☞ **page F–127**		

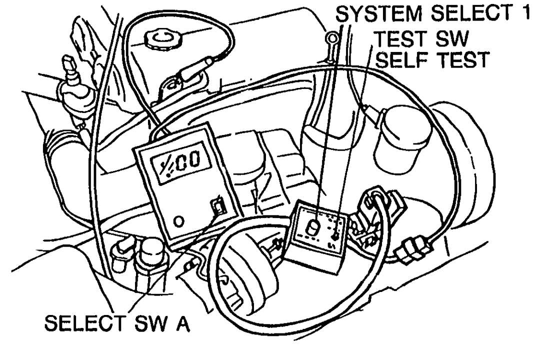
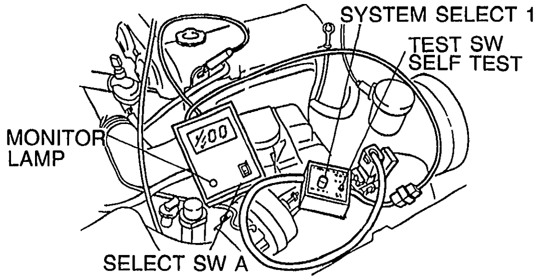
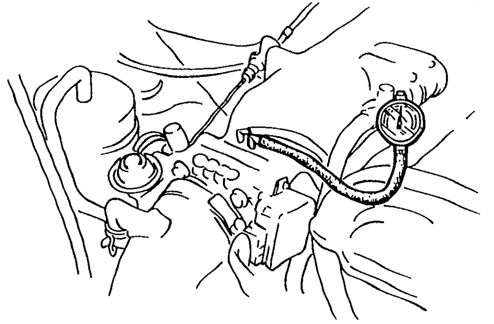
05U0FX-043

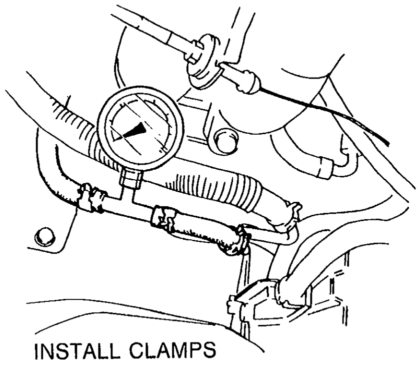
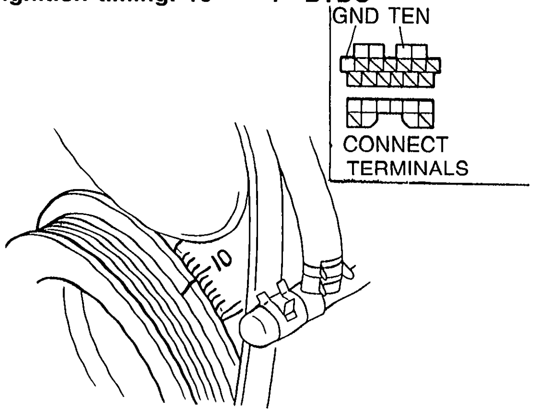
27	KNOCKING

[TROUBLESHOOTING HINTS]

① Air/Fuel mixture too lean
- Fuel injection amount incorrect
- Fuel line pressure decreases while accelerating

② Incorrect ignition timing (too advance)
③ Overheating
④ Carbon deposits in engine

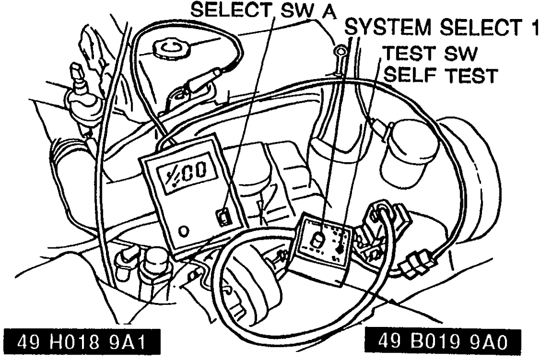
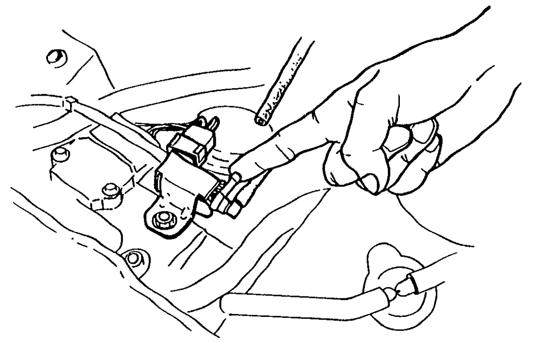
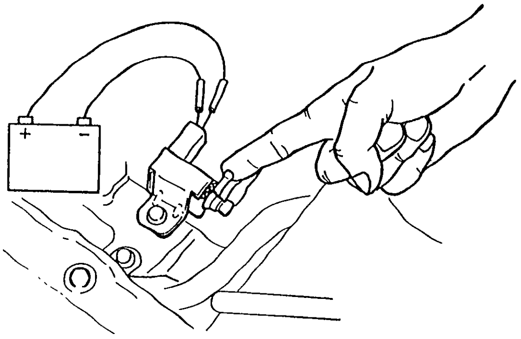
STEP	INSPECTION		ACTION
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78** 	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F–80** **"88" flashes** Check ECU terminal 1F voltage ☞ **page F–128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F–127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F–7**
2	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F–89**  SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP SELECT SW A	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F–90** **Lamp always ON** Check wiring between ECU terminal 1D and Self-Diagnosis Checker ☞ **page F–7**
3	Check if ECU terminal voltages are OK (2D, 2O and 2Q) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–128**
4	Check for correct intake manifold vacuum at idle **Vacuum: More than 450 mmHg (17.7 inHg)** 	Yes	Go to next step
		No	Check for air leakage of intake air system components ☞ **page F–93**
5	Check if air cleaner element is clean ☞ **page F–75**	Yes	Go to next step
		No	Replace air cleaner element ☞ **page F–92**
6	Check for correct engine compression ☞ **page B–10** **Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm^2, 192—135 psi) - 300 rpm**	Yes	Go to next step
		No	**High compression** Check engine condition ☞ **page B–10** • Carbon deposits

STEP	INSPECTION		ACTION
7	Check for correct fuel line pressure at idle ☞ **page F–103** **Fuel line pressure:** **265—314 kPa (2.7—3.2 kg/cm^2, 38—46 psi) (Vacuum hose to pressure regulator disconnected)** 	Yes	Check if fuel line pressure decreases when accelerating quickly ⇨ If decreases, check for clogging between fuel pump and pressure regulator ⇨ If no decrease, go to next step
		No	**Low pressure** Check for fuel line pressure while pinching fuel return hose ⇨ If fuel line pressure quickly increases, check pressure regulator ☞ **page F–111** ⇨ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure ☞ **page F–108**
8	Check for correct ignition timing at idle ☞ **page F–75** **Ignition timing: 10° ± 1° BTDC** 	Yes	Check if ignition timing advances when accelerating ⇨ If advances, go to next step ⇨ If no advance, replace ECU ☞ **page F–127**
		No	Adjust ☞ **page F–75**
9	Check if cooling system is OK ☞ **page E–3**	Yes	Go to next step
		No	Repair or replace • Thermostat ☞ **page E–8** • Electric cooling fan ☞ **page B–11** • Radiator ☞ **page E–7**
10	Try known good ECU and check if condition improves ☞ **page F–127**	Yes	Replace ECU
		No	Change fuel to another brand or use higher octane fuel

05U0FX-044

28	FUEL ODOR
DESCRIPTION	• Gasoline odor in cabin

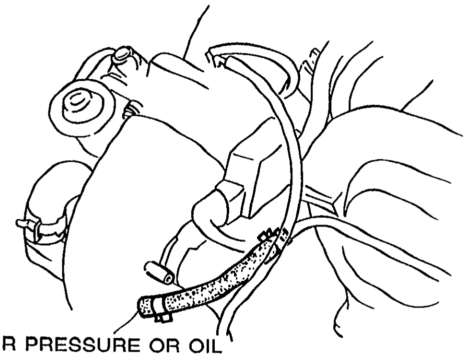
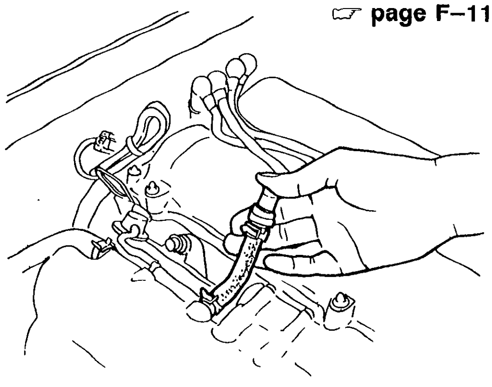
[TROUBLESHOOTING HINTS]
① Poor connection or damaged fuel system or evaporative emission control system
② Charcoal canister overflow due to evaporative emission control system malfunction

STEP	INSPECTION		ACTION	
1	Check if fuel leak or damage are visible at fuel system and evaporative emission control system	Yes	Repair or replace	☞ **page F–100**
		No	Go to next step	
2	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F–78**  SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST 00 49 H018 9A1 49 B019 9A0	Yes	Go to next step	
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence)	☞ **page F–80**
			"88" flashes Check ECU terminal 1F voltage **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker	☞ **page F–128** ☞ **page F–127** ☞ **page F–7**
3	Check if vacuum is felt at solenoid valve (purge control) with engine running and throttle valve opened (Neutral switch connector disconnected) 	Yes	Go to Step 5	
		No	Check for solenoid valve operating sound in this condition ⇨ If OK, check vacuum hoses for clogging ⇨ If not OK, go to next step	☞ **page F–6**
4	Apply 12V and ground to solenoid valve (purge control) and check if air flows through valve 	Yes	Check ECU terminal 2X voltage	☞ **page F–130**
		No	Replace solenoid valve	☞ **page F–119**
5	Try known good ECU ☞ **page F–127**			

05U0FX-045

29	EXHAUST SULFER SMELL	
DESCRIPTION	• Exhaust gas smells abnormal (Rotten egg smell)	
[TROUBLESHOOTING HINTS] High sulfer content fuel used		
STEP	INSPECTION	ACTION
1	Change fuel to another brand	

05U0FX-046

30	HIGH OIL CONSUMPTION		
[TROUBLESHOOTING HINTS] ① PCV system malfunction ② Engine malfunction (Oil working up, working down, or leakage)			
STEP	INSPECTION		ACTION
1	Check if PCV hose, ventilation hose or their attaching nipples are separated, damaged, clogged, or restricted ☞ **page F–117**	Yes	Repair or replace ☞ **page F–117**
		No	Go to next step
2	Check if air pressure or oil is present at ventilation hose 	Yes	Go to next step
		No	Check engine condition ☞ **page B–3** • Oil leakage • Worn valve seal • Worn valve stem • Worn valve guide
3	Check if vacuum is felt at PCV valve at idle ☞ **page F–117** 	Yes	Check engine condition ☞ **page B–3** • Worn piston ring groove • Stuck piston ring • Worn piston or cylinder
		No	Replace PCV valve ☞ **page F–117**

05U0FX-047

31	POOR FUEL ECONOMY

[TROUBLESHOOTING HINTS]

While fuel consumption is drastically increased during city driving, short-run operation, stop and go driving, extended winter warm-up periods, etc., as opposed to "trip" mileage, an attempt should be made to determine these factors when confronted with "poor mileage" conditions. However, since the operator is not always at fault, the following is offered.

① Operator depressing accelerator more than usual due to low engine power
- Poor ignition
- Low intake air amount
- Electric spark advance control malfunction
- Clutch slipping
- Exhaust component restricted

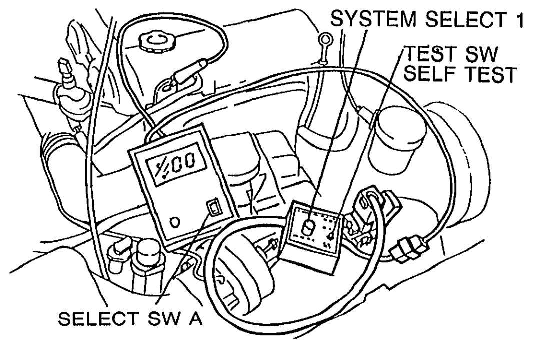
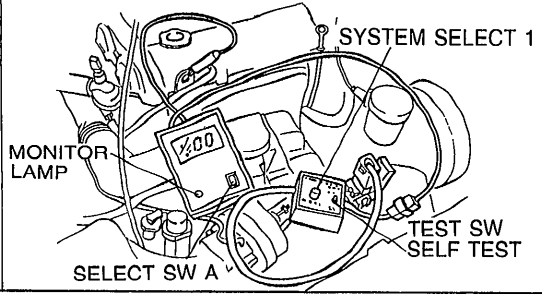
② Air/Fuel mixture too rich
- High fuel line pressure

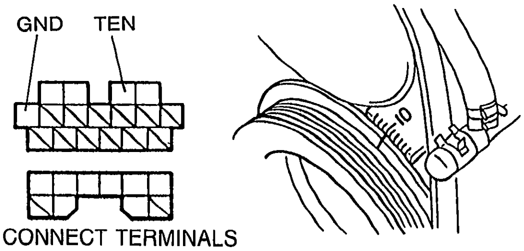
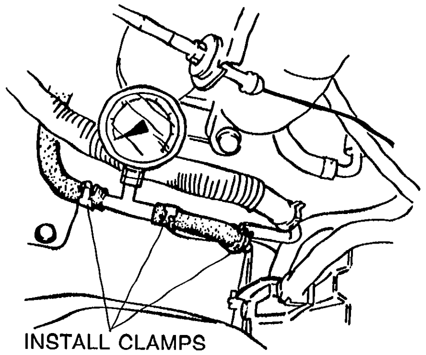
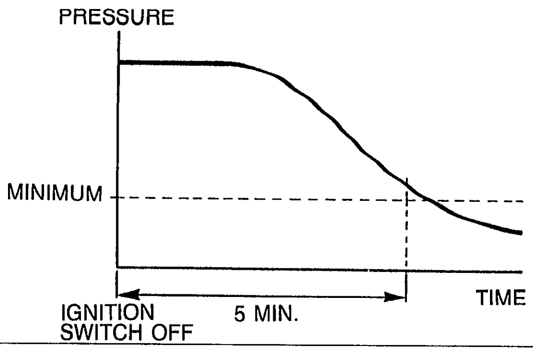
③ Alcohol blended fuel used

④ High vehicle load
- Low tire pressure
- Unrecommended tire used
- Brake dragging

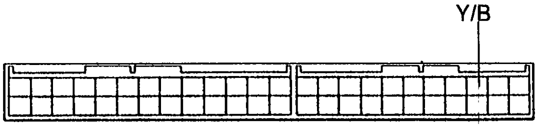
⑤ Fuel cut control malfunction

⑥ High idle speed (Refer to page F-36)

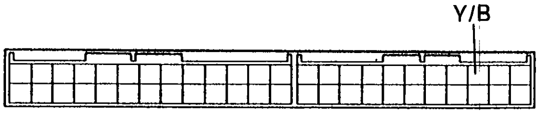
STEP	INSPECTION		ACTION
1	Check factors other than engine • Low tire pressure ☞ **page Q-3** • Unrecommended tire used ☞ **page Q-2** • Clutch slipping ☞ **page H-3** • Brake dragging ☞ **page P-27** • Exhaust component resticted ☞ **page F-115**	Yes	Go to next step
		No	Repair
2	Check if air hoses are connected correctly ☞ **page F-93**	Yes	Go to next step
		No	Repair ☞ **page F-93**
3	Check if air cleaner element is clean ☞ **page F-75**	Yes	Go to next step
		No	Replace ☞ **page F-75**
4	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON ☞ **page F-78**  SYSTEM SELECT 1 TEST SW SELF TEST 00 SELECT SW A	Yes	Go to next step
		No	**Malfunction Code No. displayed** Check for cause (Refer to specified check sequence) ☞ **page F-80**
			"88" flashes Check ECU terminal 1F voltage ☞ **page F-128** **Voltage: Approx. 12V (Ignition switch ON)** ⇨ If OK, replace ECU ☞ **page F-127** ⇨ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ **page F-7**
5	Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON ☞ **page F-89**  SYSTEM SELECT 1 MONITOR LAMP 00 TEST SW SELF TEST SELECT SW A	Yes	Go to next step
		No	**Lamp not ON/OFF with specified switch** Check for cause (Refer to specified check sequence) ☞ **page F-90**
			Lamp always ON Check wiring between ECU terminal 1F and Self-Diagnosis Checker ☞ **page F-7**

STEP	INSPECTION		ACTION
6	Check if ECU terminal voltages are OK (2D, 2N, 2O, 2P, 2Q, 2U and 2V) ☞ **page F–129**	Yes	Go to next step
		No	Check for cause (Refer to "Check Point for Each Terminal") ☞ **page F–132**
7	Check if fuel cut operation is OK during deceleration **Fuel cut: Above 1,900 rpm after warm-up**	Yes	Go to next step
		No	Try known good ECU ☞ **page F–127**
8	Check for correct ignition timing at idle ☞ **page F–75** **Ignition timing: 10° ± 1° BTDC** 	Yes	Go to next step
		No	Adjust ☞ **page F–75**
9	Check for correct fuel line pressure at idle ☞ **page F–111** **Fuel line pressure:** **216—265 kPa (2.2—2.7 kg/cm^2; 31—38 psi)** 	Yes	Go to next step
		No	**High pressure** Check if vacuum hose to pressure regulator is damaged or poorly connected ⇨ If OK, replace pressure regulator ☞ **page F–112** ⇨ If not OK, repair or replace hose
10	Run engine several minutes at idle and check if fuel line pressure is held after ignition switch turned OFF ☞ **page F–102** **Fuel line pressure: More than 147 kPa (1.5 kg/cm^2, 21 psi) for 5 min.** 	Yes	Go to next step
		No	Check injector for fuel leakage ☞ **page F–113**
11	Change fuel to another brand		

05U0FX-048

32	MIL ALWAYS ON			
DESCRIPTION	• Self-Diagnosis Checker does not indicate Malfunction Code No. but MIL always ON			
[TROUBLESHOOTING HINTS] • Short circuit in wiring harness • ECU malfunction				
STEP	**INSPECTION**		**ACTION**	
1	Disconnect (Y/B) wire from ECU and check if MIL goes off 	Yes	Replace ECU	☞ **page F–127**
		No	Check for short circuit in wiring between combination meter and ECU	☞ **page F–8**

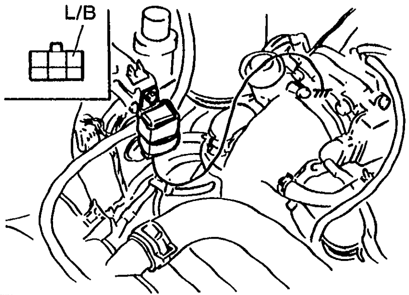
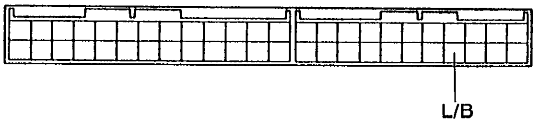
05U0FX-049

33	MIL NEVER ON			
DESCRIPTION	• Self-Diagnosis Checker indicates Malfunction code No. of input device but MIL never ON • Other indicator and warning lamps OK			
[TROUBLESHOOTING HINTS] • Bulb burned out • Open circuit in wiring harness • ECU malfunction				
STEP	**INSPECTION**		**ACTION**	
1	Ground (Y/B) wire at ECU with jumper wire and check if MIL comes on 	Yes	Check connection condition of ECU connector	☞ **page F–128**
			⇨ If OK, replace ECU	☞ **page F–127**
			⇨ If not OK, repair ECU connector	☞ **page F–127**
		No	Check if bulb is OK	
			⇨ If OK, repair (Y/B) wire between ECU and combination meter	☞ **page F–8**
			⇨ If not OK, replace bulb	☞ **page T–33**

05U0FX-050

34	A/C DOES NOT WORK
DESCRIPTION	• Blower fan operates but cool air not expelled

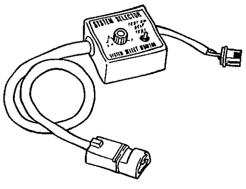
[TROUBLESHOOTING HINTS]
- Open or short circuit in wiring harness
- A/C relay malfunction
- A/C switch malfunction
- Magnetic clutch malfunction
- ECU malfunction

STEP	INSPECTION		ACTION
1	Ground (L/B) wire at A/C relay with jumper wire and check if condenser fan operates when ignition switch turned ON  	Yes	Go to next step
		No	Go to A/C system Troubleshooting ☞ **page U–4**
2	Ground (L/B) wire at ECU with jumper wire and check if condenser fan operates when ignition switch turned ON  	Yes	Go to next step
		No	Repair (L/B) wire between ECU and A/C relay ☞ **page F–7**
3	Check if A/C switch is OK ☞ **page U–25**	Yes	Try known good ECU ☞ **page F–127**
		No	Check A/C switch and wiring ☞ **page U–25**

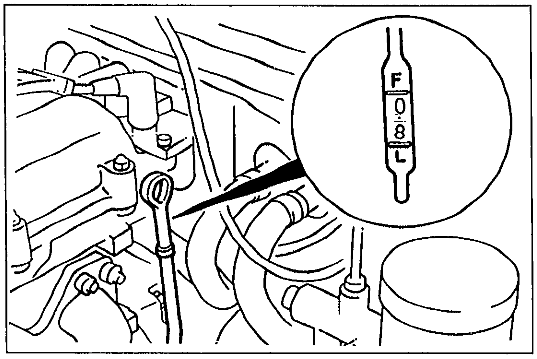
05U0FX-051

ENGINE TUNE-UP

PREPARATION
SST

49 B019 9A0 System Selector 	For inspection of ignition timing and idle speed.

05U0FX-052

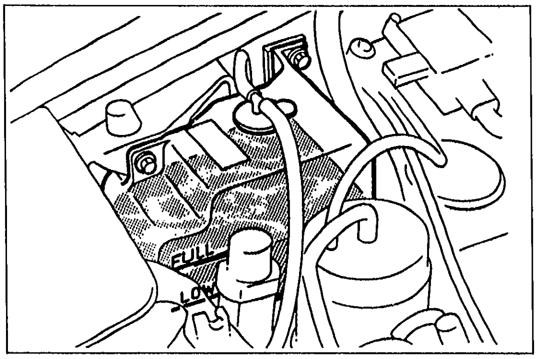


05U0FX-053

BASIC INSPECTION
Engine Oil

1. Be sure the vehicle is on level ground.
2. Warm up the engine to normal operating temperature and stop it.
3. Wait for five minutes.
4. Remove the oil level gauge and check the oil level and condition.
5. Add or replace oil if necessary.

Note
- **The distance between the L and F marks on the level gauge represents 0.8 liter (0.85 US qt, 0.70 Imp qt).**

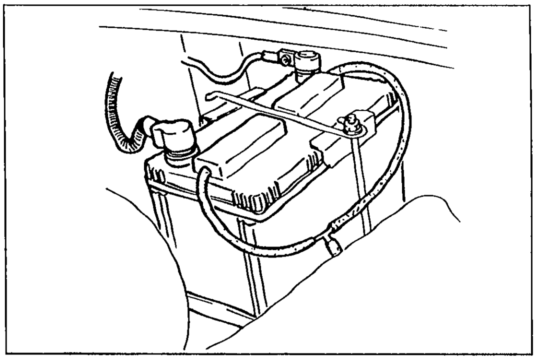


05U0FX-054

Coolant Level (Cold engine)

Warning
- **Never remove the radiator cap while the radiator and engine are hot.**
- **Wrap a thick cloth around the cap while carefully removing it.**

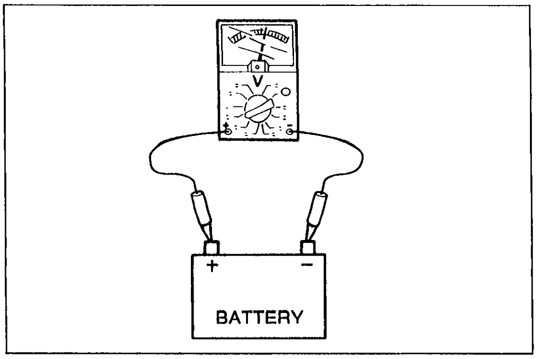
1. Verify that the coolant level is at the bottom of the radiator filler neck.
2. Verify that the level in the coolant reservoir is between the FULL and LOW marks. Add coolant if necessary.



05U0FX-055

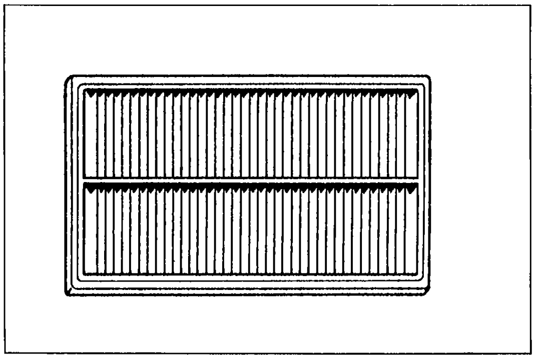
Battery

1. Check for loose or corroded terminals and connections.
2. Clean and tighten the connections as necessary.



05U0FX-056

3. Measure the battery voltage. If the voltage is **12.6V or less**, recharge the battery. (Refer to Section G.)

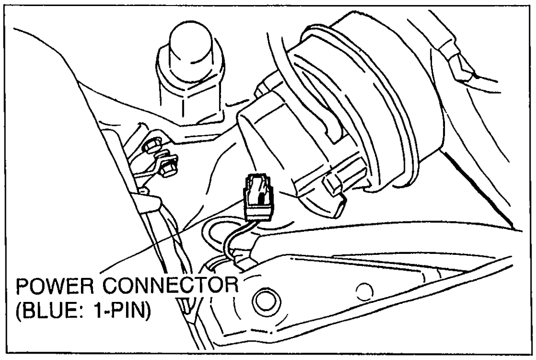


05U0FX-057

Air Cleaner Element

Caution
- **Do not clean the air cleaner element with compressed air.**

Visually check the air cleaner element for excessive dirt, damage, or oil. Replace if necessary.



05U0FX-058

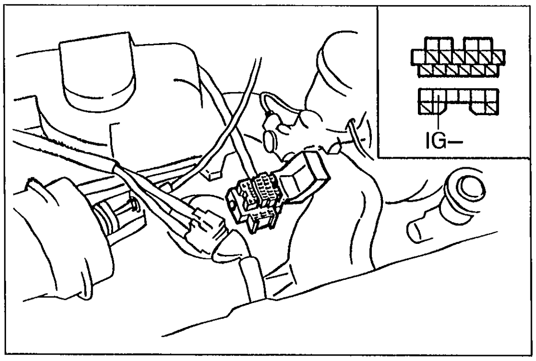
ADJUSTMENT

Preparation

1. Check the condition of the engine (spark plugs, leaks in hoses, etc.).
2. Make sure all accessories are OFF.
3. Warm up the engine to normal operating temperature.

Note
- **When using an externally powered timing light and/or tachometer connect it to the power connector (Blue: 1-pin).**

Warning
- **Do not ground the power connector terminal (Blue: 1-pin); the wiper 20A fuse will be burned.**

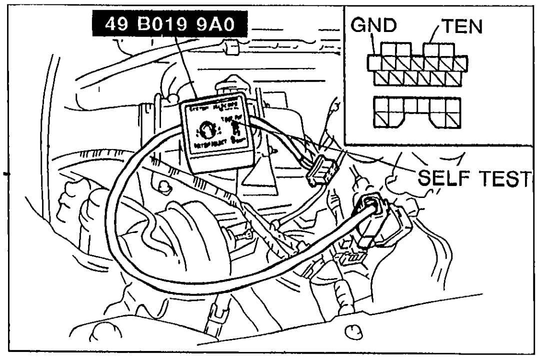


05U0FX-059

4. Connect a timing light and tachometer to the diagnosis connector terminal IG–.

Ignition Timing

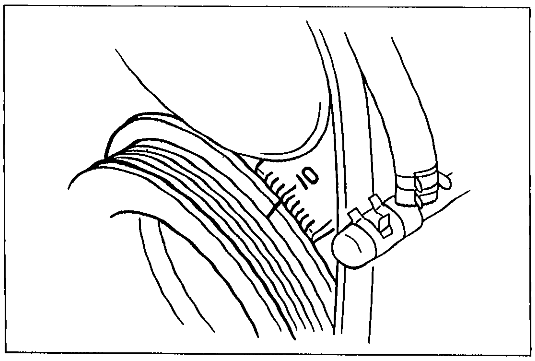
Caution
- **Be extremely careful when making connections to the diagnosis connector as a mistaken connection will cause a malfunction.**



05U0FX-060

1. Connect the **SST** and set the TEST SW to "SELF TEST" or connect diagnosis connector terminals TEN and GND with a jumper wire.
2. Check the idle speed, and set it to specification if necessary. (Refer to page F–76.)

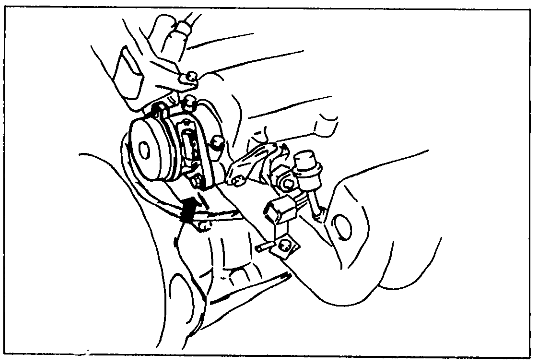
Idle speed: 850 ± 50 rpm



05U0FX-061

3. Verify that the timing mark (Yellow) on the crankshaft pulley and the timing belt cover are aligned.

Ignition timing: 10° ± 1° BTDC (at idle)

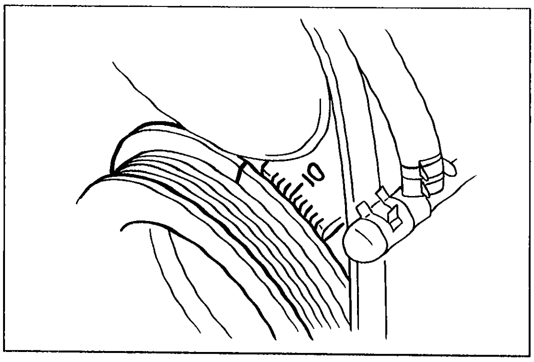


05U0FX-062

4. If the marks are not aligned, loosen the crank angle sensor lock bolt, and turn the crank angle sensor to make the adjustment.
5. Tighten the crank angle sensor lock bolt to the specified torque.

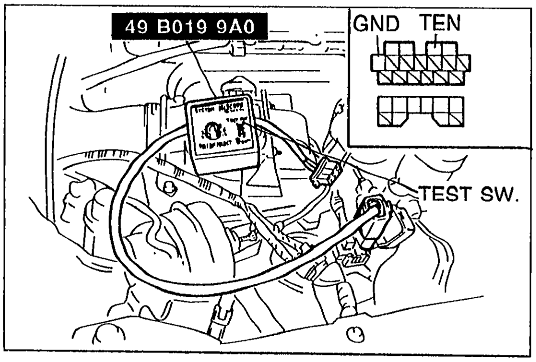
Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

6. After adjusting the ignition timing, disconnect the **SST** or jumper wire from the diagnosis connector.



05U0FX-063

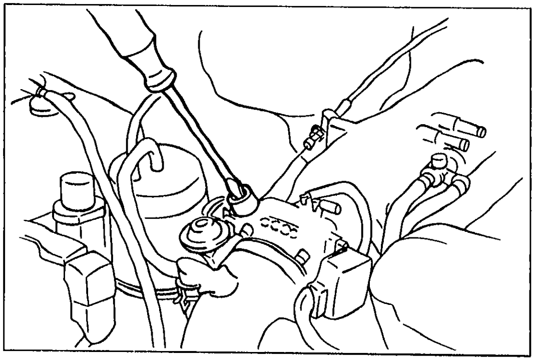
7. Increase the engine speed and verify that the ignition timing advances.



05U0FX-064

Idle Speed

1. Connect the **SST** and set the TEST SW to "SELF TEST" or connect diagnosis connector terminals TEN and GND with a jumper wire.



05U0FX-065

2. Verify that the idle speed is within specification.

Idle speed: 850 ± 50 rpm

3. If the idle speed is not within specification, remove the blind cap from the air adjusting screw and adjust it.
4. After adjusting the idle speed, install the blind cap and disconnect the **SST** or jumper wire from the diagnosis connector.

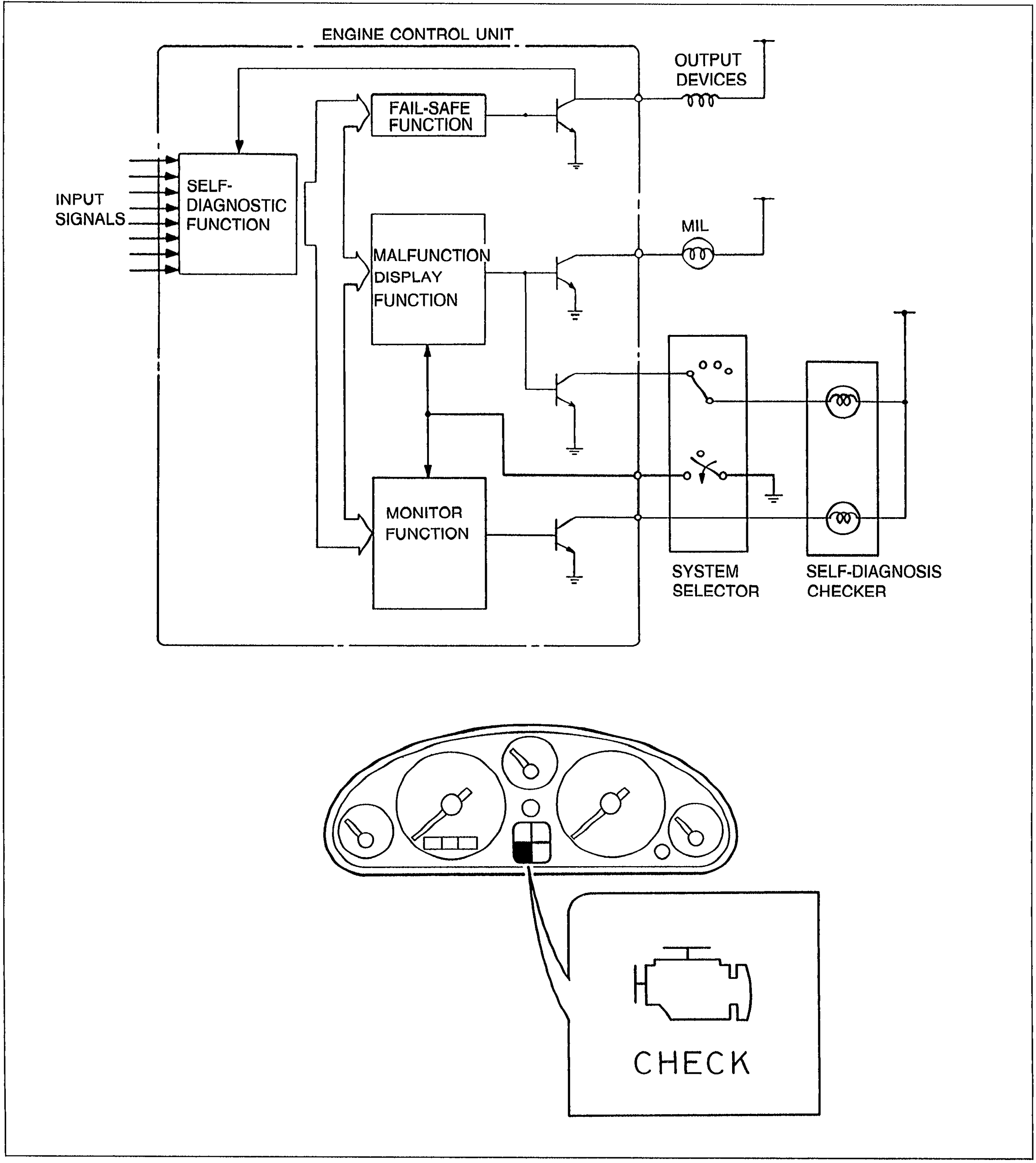
SELF-DIAGNOSIS FUNCTION

DESCRIPTION

When troubles occur in the main input devices or output devices, check for the cause using the **SST**. Failures of each input and output device are indicated and retrieved from the engine control unit as malfunction code numbers.

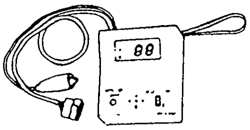
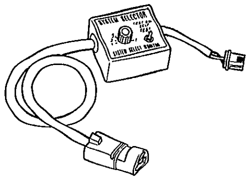
Note

- **The engine control unit constantly checks for malfunction of the input devices.**
- **But, the engine control unit checks for malfunction of output devices only in a 3 second period after the ignition switch is turned ON and the diagnosis connector terminal (TEN) is grounded.**

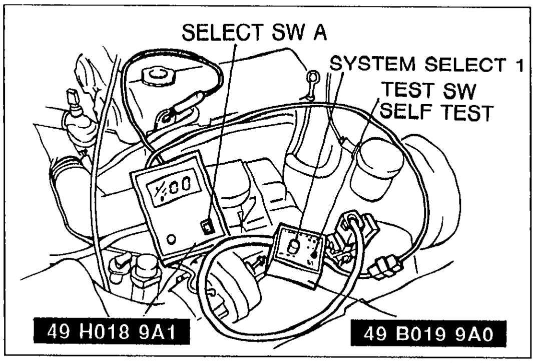

ENGINE CONTROL UNIT
OUTPUT DEVICES
FAIL-SAFE FUNCTION
INPUT SIGNALS
SELF-DIAGNOSTIC FUNCTION
MIL
MALFUNCTION DISPLAY FUNCTION
MONITOR FUNCTION
SYSTEM SELECTOR
SELF-DIAGNOSIS CHECKER
CHECK

02U0FX-066

PREPARATION
SST

49 H018 9A1 Self-Diagnosis Checker 	For diagnosis	49 B019 9A0 System Selector 	For diagnosis

05U0FX-067


SELECT SW A
SYSTEM SELECT 1
TEST SW
SELF TEST
49 H018 9A1
49 B019 9A0

05U0FX-068

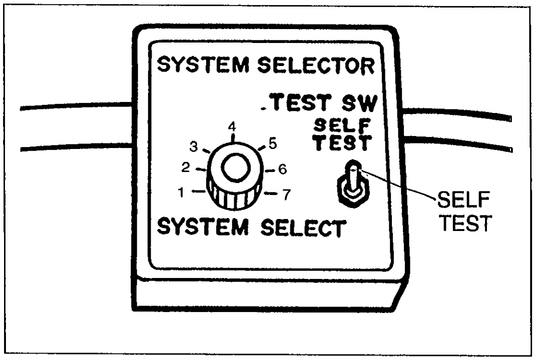
MALFUNCTION CODE NUMBER

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

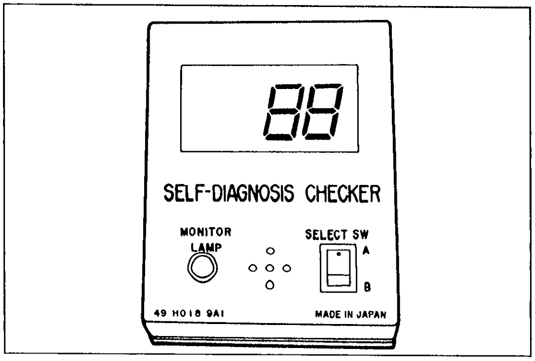
Inspection procedure

1. Connect the **SSTs** to the diagnosis connector and a ground.
2. Set the select switch to position A.


SYSTEM SELECTOR
TEST SW
SELF TEST
1
2
3
4
5
6
7
SYSTEM SELECT
SELF TEST

05U0FX-069

3. Set the System Selector to position 1 and SELF TEST as shown.


88
SELF-DIAGNOSIS CHECKER
MONITOR LAMP
SELECT SW
A
B
49 H018 9A1
MADE IN JAPAN

05U0FX-070

4. Turn the ignition switch ON.
5. Verify that **88** flashes on the digital display and that the buzzer sounds for **3 sec.** after turning the ignition switch ON.
6. If **88** does not flash, check the main relay, (Refer to page F–139.) power supply circuit, and check connector wiring.
7. If **88** flashes and the buzzer continues for more than **20 sec.**, check for a short circuit between the engine control unit terminal 1F and the diagnosis connector. Replace the engine control unit if necessary and perform Steps 3 and 4 again.
8. Note any code numbers and check for the causes by referring to the check sequences shown on pages F–81 to F–87. Repair as necessary.

Note

- **Cancel the code numbers by performing the after-repair procedure following repairs. (Refer to page F–88.)**

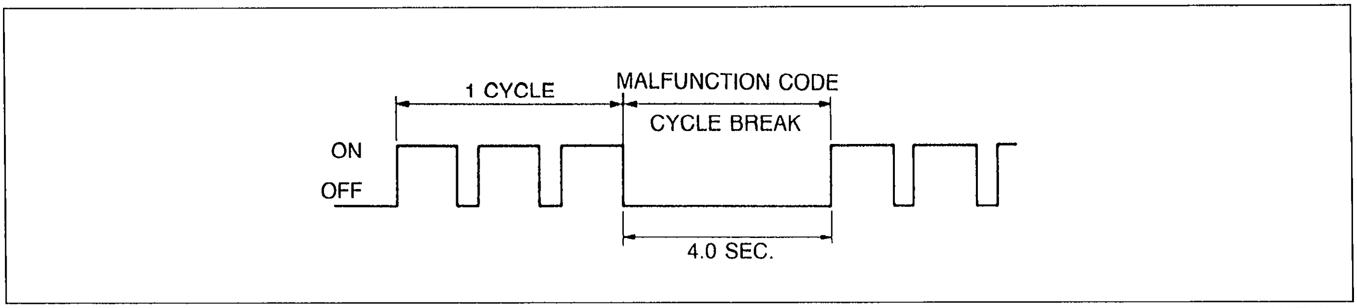
Principle of Code Cycle

Malfunction codes are determined as shown below.

05U0FX-071

1. Code cycle break

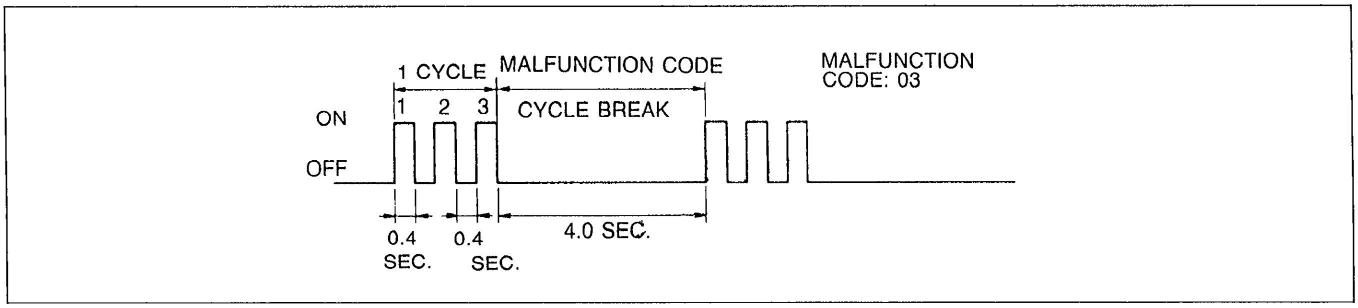
The time between malfunction code cycles is 4.0 seconds (the time the lamp is off).


1 CYCLE
MALFUNCTION CODE
CYCLE BREAK
ON
OFF
4.0 SEC.

05U0FX-072

2. Second digit of malfunction code (ones position)

The digit in the ones position of the malfunction code represents the number of times the buzzer sounds 0.4 second during one cycle.

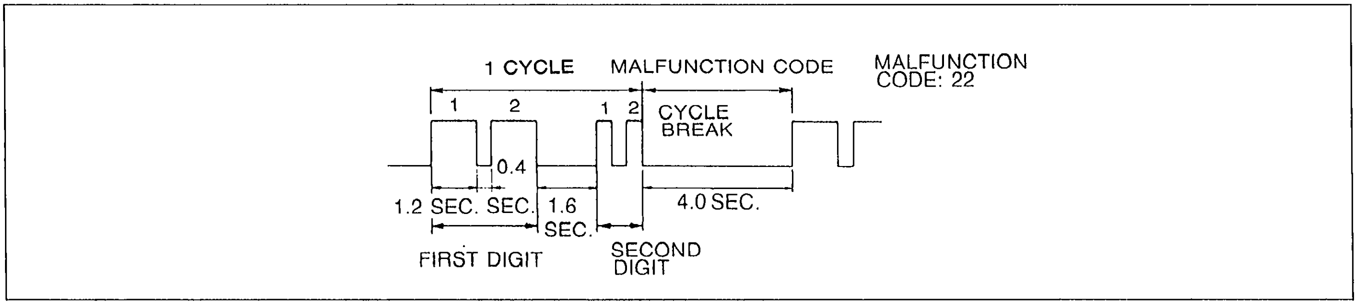

1 CYCLE
MALFUNCTION CODE
MALFUNCTION CODE: 03
1
2
3
CYCLE BREAK
ON
OFF
0.4 SEC.
0.4 SEC.
4.0 SEC.

05U0FX-073

3. First digit of malfunction code (tens position)

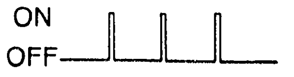
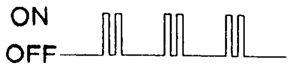
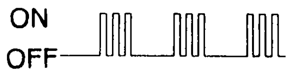
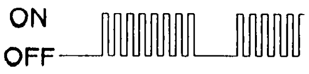
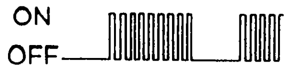
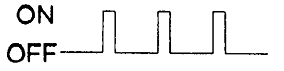
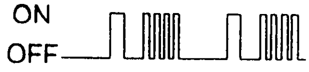
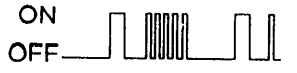
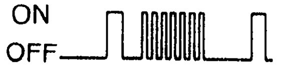
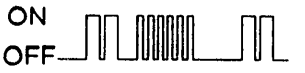
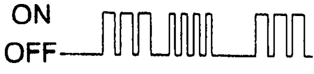
The digit in the tens position of the malfunction code represents the number of times the buzzer is on 1.2 seconds during one cycle.

It should also be noted that the light goes off for 1.6 seconds between the long and short pulses of the buzzer.


1 CYCLE
MALFUNCTION CODE
MALFUNCTION CODE: 22
1
2
1
2
CYCLE BREAK
0.4 SEC.
1.2 SEC.
1.6 SEC.
4.0 SEC.
FIRST DIGIT
SECOND DIGIT

05U0FX-074

Code Numbers

Malfunction display		Sensor or subsystem	Self-diagnosis	Fail-safe
Code No.	Pattern of output signal (Self-Diagnosis Checker)			
01		Ignition pulse	No IGf-signal	—
02		Ne-signal	No Ne-signal	—
03		G-signal	No G-signal	—
08		Airflow meter	Open or short circuit	Basic fuel injection amount fixed as for two driving modes (1) Idle switch: ON (2) Idle switch: OFF
09		Water thermosensor	Open or short circuit	Maintains constant 20°(68°F) command
10		Intake air thermosensor (Airflow meter)	Open or short circuit	Maintains constant 20°C (68°F) command
14		Atmospheric pressure sensor	Open or short circuit	Maintains constant command of sea level pressure
15		Oxygen sensor	Sensor output continues less than 0.45V 180 sec. after engine exceeds 1,500 rpm	Cancels engine feedback operation
17		Feedback system	Sensor output continues unchanged 20 sec. after engine exceeds 1,500 rpm	Cancels engine feedback operation
26		Solenoid valve (Purge control)	—	—
34		ISC valve		—

05U0FX-075

Caution

- **If there is more than one failure present, the lowest number malfunction code is displayed first, the remaining codes are displayed in order.**
- **After repairing all failures, turn off the ignition switch, disconnect the negative battery cable, and depress the brake pedal for 5 seconds to erase the memory of a malfunction code from the engine control unit.**

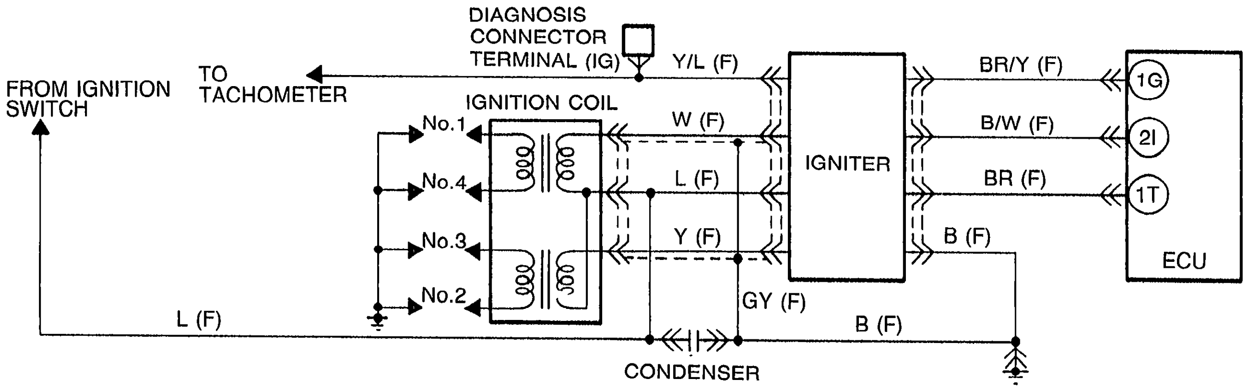
Troubleshooting

If a malfunction code number is shown on the **SST**, check for the cause by using the chart related to the code number shown.

<table>
<tr><th colspan="4">CODE NO.01 IGf-SIGNAL</th></tr>
<tr><th>STEP</th><th>INSPECTION</th><th colspan="2">ACTION</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Are there any poor connections at ignition coil connectors and igniter connectors?</td><td>Yes</td><td>Repair or replace connector</td></tr>
<tr><td>No</td><td>Go to next step</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Does tachometer operates?</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from igniter to ECU terminal 2I</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Is resistance of ignition coil OK?
Resistance: Primary 0.78—0.94Ω
Secondary 11.2—15.2 kΩ</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Replace ignition coil
(Refer to page G–21)</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Is there continuity between ignition coil and igniter?<table><tr><th>Ignition coil</th><th>Igniter</th></tr><tr><td>A (W)</td><td>A (W)</td></tr><tr><td>B (Y)</td><td>H (Y)</td></tr></table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from ignition coil to igniter</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Is ignition coil terminal wire (L) voltage OK?
(Refer to page G–21)</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from ignition coil to ignition switch</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Is igniter terminal-wire (L) voltage OK?
(Refer to page G–22)</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from igniter to ignition switch</td></tr>
<tr><td rowspan="2">7</td><td rowspan="2">Is there continuity between igniter and ground?</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from igniter to ground</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">Check igniter (Refer to page G–22)</td><td>Yes</td><td>Replace ECU (Refer to page F–127)</td></tr>
<tr><td>No</td><td>Replace igniter (Refer to page G–22)</td></tr>
</table>

05U0FX-076

Circuit Diagram


DIAGNOSIS CONNECTOR TERMINAL (IG)
TO TACHOMETER
FROM IGNITION SWITCH
Y/L (F)
IGNITION COIL
No.1
No.4
No.3
No.2
W (F)
L (F)
Y (F)
IGNITER
BR/Y (F)
B/W (F)
BR (F)
B (F)
1G
2I
1T
ECU
GY (F)
B (F)
L (F)
CONDENSER

05U0FX-077

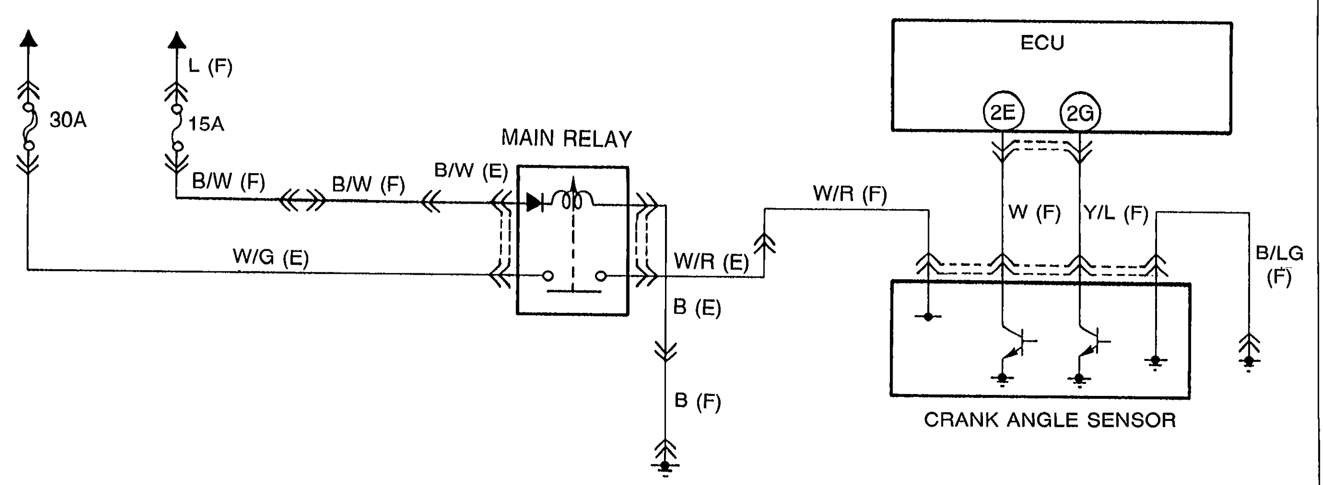
<table>
<tr><th colspan="4">CODE NO.02 Ne-SIGNAL</th></tr>
<tr><th>STEP</th><th>INSPECTION</th><th colspan="2">ACTION</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Are there any poor connections in crank angle sensor circuit?</td><td>Yes</td><td>Repair or replace connector</td></tr>
<tr><td>No</td><td>Go to next step</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Is Code No.03 present at same time?</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Go to Step 5</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Is there continuity between crank angle sensor terminal-wire (B/LG) and ground?</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from crank agnle sensor to ground</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Is there battery voltage at crank angle sensor terminal-wire (W/R)?</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from crank angle sensor to main relay</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Is there continuity between crank angle sensor and ECU?<table><tr><th>Crank angle sensor</th><th>ECU</th></tr><tr><td>C (W)</td><td>2E</td></tr></table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from crank angle sensor to ECU</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Is there approx. 5V at ECU terminal 2E? (With crank angle sensor connector disconnected)</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Replace ECU (Refer to page F–127)</td></tr>
<tr><td rowspan="2">7</td><td rowspan="2">Is there approx. 5V at crank angle sensor terminal-wire (W)? (At harness-side connector with connector disconnected)</td><td>Yes</td><td>Replace crank angle sensor
(Refer to page F–134)</td></tr>
<tr><td>No</td><td>Check for short circuit in wiring from crank angle sensor to ECU</td></tr>
</table>

05U0FX-078

<table>
<tr><th colspan="4">CODE NO.03 G-SIGNAL</th></tr>
<tr><th>STEP</th><th>INSPECTION</th><th colspan="2">ACTION</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Are there any poor connections in crank angle sensor circuit?</td><td>Yes</td><td>Repair or replace connector</td></tr>
<tr><td>No</td><td>Go to next step</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Is Code No.02 also present?</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Go to Step 5</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Is there continuity between crank angle sensor terminal-wire (B/LG) and ground?</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from crank angle sensor to ground</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Is there battery voltage at crank angle sensor terminal-wire (W/R)?</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from crank angle sensor to main relay</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Is there continuity between crank angle sensor and ECU?<table><tr><th>Crank angle sensor</th><th>ECU</th></tr><tr><td>D (Y/L)</td><td>2G</td></tr></table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from crank angle sensor to ECU</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Is there approx. 5V at ECU terminal 2E? (With crank angle sensor connector disconnected)</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Replace ECU (Refer to page F–127)</td></tr>
<tr><td rowspan="2">7</td><td rowspan="2">Is there approx. 5V at crank angle sensor terminal-wire (Y/L)? (At harness-side connector with connector disconnected)</td><td>Yes</td><td>Replace crank angle sensor
(Refer to page F–134)</td></tr>
<tr><td>No</td><td>Check for short circuit in wiring from crank angle sensor to ECU</td></tr>
</table>

05U0FX-079

Circuit Diagram

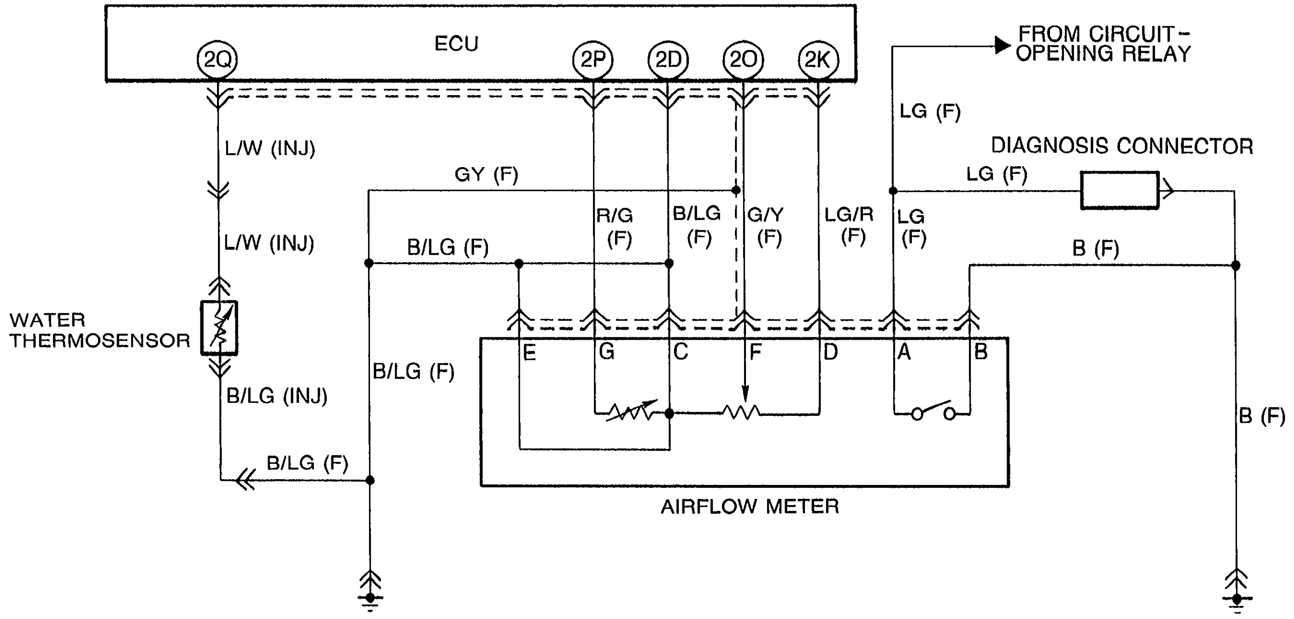

30A
L (F)
15A
B/W (F)
B/W (F)
B/W (E)
MAIN RELAY
W/G (E)
W/R (E)
B (E)
B (F)
W/R (F)
ECU
2E
2G
W (F)
Y/L (F)
B/LG (F)
CRANK ANGLE SENSOR

05U0FX-080

<table>
<tr><th colspan="4">CODE NO.08 AIRFLOW METER</th></tr>
<tr><th>STEP</th><th>INSPECTION</th><th colspan="2">ACTION</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Are there any poor connections in airflow meter circuit?</td><td>Yes</td><td>Repair or replace connector</td></tr>
<tr><td>No</td><td>Go to next step</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Is Code No.10 present at same time?</td><td>Yes</td><td>Check for open circuit in wiring from airflow meter terminal-wire (B/LG) to ground</td></tr>
<tr><td>No</td><td>Go to next step</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Is resistance of airflow meter OK?
<table>
<tr><th>Airflow meter</th><th>Fully closed Ω</th><th>Fully open Ω</th></tr>
<tr><td>D (LG/R)—F (G/Y)</td><td>200—600</td><td>20—1,000</td></tr>
<tr><td>D (LG/R)—C (B/LG)</td><td colspan="2">200—400</td></tr>
</table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Replace airflow meter (Refer to page F–135)</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Is there continuity between airflow meter connector and ECU?
<table>
<tr><th>Airflow meter</th><th>ECU</th></tr>
<tr><td>D (LG/R)</td><td>2K</td></tr>
<tr><td>F (G/Y)</td><td>2O</td></tr>
</table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from airflow meter to ECU</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Are ECU terminals 2D and 2K voltages OK?
(Refer to page F–129)</td><td>Yes</td><td>Replace ECU (Refer to page F–127)</td></tr>
<tr><td>No</td><td>Check for short circuit in wiring from airflow meter to ECU</td></tr>
</table>

05U0FX-081

Circuit Diagram


ECU
2Q
2P
2D
2O
2K
FROM CIRCUIT-OPENING RELAY
LG (F)
DIAGNOSIS CONNECTOR
LG (F)
L/W (INJ)
L/W (INJ)
GY (F)
R/G (F)
B/LG (F)
G/Y (F)
LG/R (F)
LG (F)
B/LG (F)
B (F)
WATER THERMOSENSOR
B/LG (INJ)
B/LG (F)
B/LG (F)
E
G
C
F
D
A
B
B (F)
AIRFLOW METER

05U0FX-082

<table>
<tr><th colspan="4">CODE NO.09 WATER THERMOSENSOR</th></tr>
<tr><th>STEP</th><th>INSPECTION</th><th colspan="2">ACTION</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Are there any poor connections in water thermosensor circuit?</td><td>Yes</td><td>Repair or replace connector</td></tr>
<tr><td>No</td><td>Go to next step</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Is there continuity between water thermosensor and ECU?<table><tr><th>Water thermosensor</th><th>ECU</th></tr><tr><td>A (L/W)</td><td>2Q</td></tr><tr><td>B (B/LG)</td><td>2D</td></tr></table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from water thermosensor to ECU</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Is resistance of water thermosensor OK?<table><tr><th>Coolant temp.</th><th>Resistance</th></tr><tr><td>−20°C (−4°F)</td><td>14.6—17.8 kΩ</td></tr><tr><td>20°C (68°F)</td><td>2.2—2.7 kΩ</td></tr><tr><td>80°C (176°F)</td><td>290—350Ω</td></tr></table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Replace water thermosensor
(Refer to page F–139)</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Is same Code No. present after performing after-repair procedure? (Refer to page F–88)</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Water thermosensor and circuit OK</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Are ECU terminals 2Q and 2D voltages OK? (Refer to page F–129)</td><td>Yes</td><td>Replace ECU (Refer to page F–127)</td></tr>
<tr><td>No</td><td>Check for short circuit in wiring from water thermosensor to ECU</td></tr>
</table>

05U0FX-083

<table>
<tr><th colspan="4">CODE NO.10 INTAKE AIR THERMOSENSOR (IN AIRFLOW METER)</th></tr>
<tr><th>STEP</th><th>INSPECTION</th><th colspan="2">ACTION</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Are there any poor connections in intake air thermosensor circuit?</td><td>Yes</td><td>Repair or replace connector</td></tr>
<tr><td>No</td><td>Go to next step</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Is there continuity between intake air thermosensor (in airflow meter) and ECU?<table><tr><th>Intake air thermosensor</th><th>ECU</th></tr><tr><td>C (B/LG)</td><td>2D</td></tr><tr><td>G (R/G)</td><td>2P</td></tr></table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from intake air thermosensor (in airflow meter) to ECU</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Is resistance of intake air thermosensor (in airflow meter) OK?<table><tr><th>Terminal</th><th>Temperature</th><th>Resistance</th></tr><tr><td rowspan="3">C (B/RG)
−G (R/G)</td><td>−20°C (−4°F)</td><td>13.6—18.4 kΩ</td></tr><tr><td>20°C (68°F)</td><td>2.21—2.69 kΩ</td></tr><tr><td>60°C (140°F)</td><td>493—667Ω</td></tr></table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Replace airflow meter (Refer to page F–135)</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Is same Code No. present after performing after-repair procedure? (Refer to page F–88)</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Intake air thermosensor and circuit OK</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Are engine control unit terminals 2P and 2D voltages OK? (Refer to page F–129)</td><td>Yes</td><td>Replace ECU (Refer to page F–127)</td></tr>
<tr><td>No</td><td>Check for short circuit in wiring from intake air thermosensor to ECU</td></tr>
</table>

05U0FX-084

CODE NO.14 ATMOSPHERIC PRESSURE SENSOR
Replace ECU (Refer to page F–127)

05U0FX-085

CODE NO.15 OXYGEN SENSOR

Note
- **If Code Nos.15 and 17 are both present, first perform the checking procedure for Code No.17**

STEP	INSPECTION	ACTION	
1	Are there any poor connections in oxygen sensor circuit?	Yes	Repair or replace connector
		No	Go to next step
2	Is oxygen sensor output voltage OK? (Refer to page F–138)	Yes	Go to next step
		No	Replace oxygen sensor (Refer to page F–138)
3	Is there continuity between oxygen sensor and ECU terminal 2N?	Yes	Go to next step
		No	Check for open circuit in wiring from oxygen sensor to ECU
4	Is ECU terminal 2N voltage OK?	Yes	Go to next step
		No	Check for short circuit in wiring from oxygen sensor to ECU
5	Is sensitivity of oxygen sensor OK? (Refer to page F–138)	Yes	Replace ECU (Refer to page F–127)
		No	Replace oxygen sensor (Refer to page F–138)

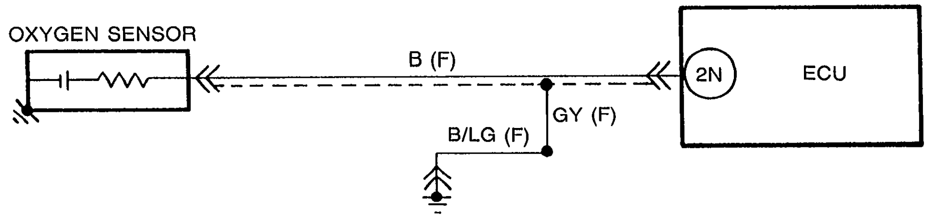
05U0FX-086

CODE NO.17 FEEDBACK SYSTEM

STEP	INSPECTION	ACTION	
1	Warm up engine and run it at 2,500—3,000 rpm for 3 min.		
2	Does monitor lamp of Self-Diagnosis Checker illuminate at idle?	Yes	Go to next step
		No	Check for air leak in vacuum hoses or emission components Check for contaminated oxygen sensor Check for insufficient fuel injection
3	Are spark plugs clean?	Yes	Go to next step
		No	Clean or replace spark plugs
4	Is oxygen sensor voltage OK? (Refer to page F–138)	Yes	Go to next step
		No	Replace oxygen sensor (Refer to page F–138)
5	Is same Code No. present after performing after-repair procedure? (Refer to page F–88)	Yes	Go to next step
		No	Check for short circuit in wiring from oxygen sensor to ECU terminal 2N
6	Is there continuity between oxygen sensor and ECU terminal 2N?	Yes	Go to next step
		No	Check for open circuit in wiring from oxygen sensor to ECU
7	Is ECU terminal 2N voltage OK? (Refer to page F–127)	Yes	Replace ECU (Refer to page F–127)
		No	Check for short circuit in wiring from oxygen sensor to ECU

05U0FX-087

Circuit Diagram



05U0FX-088

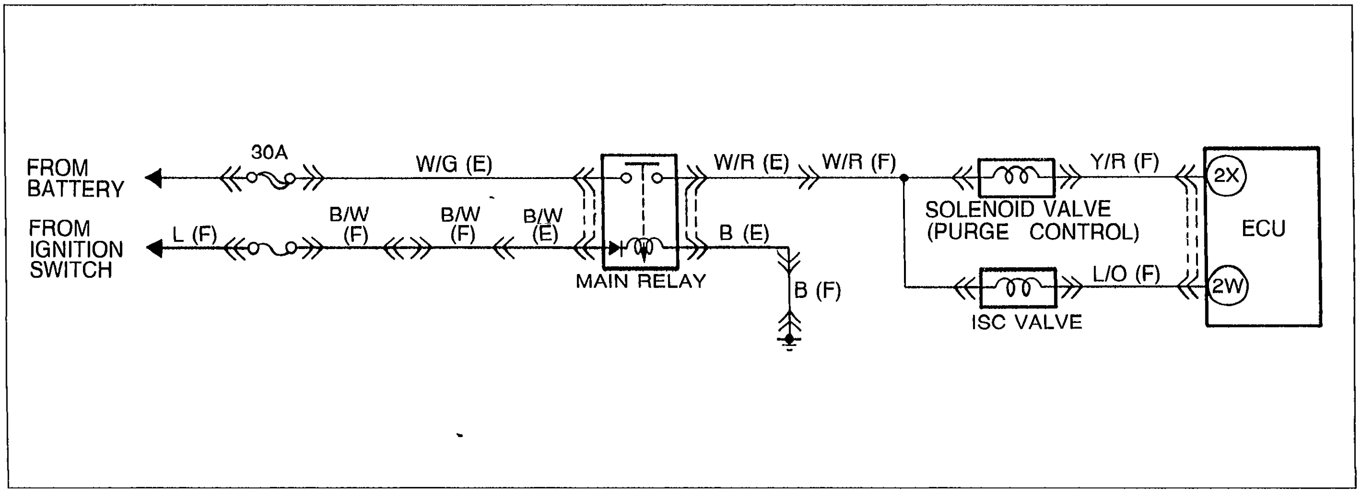
<table>
<tr><th colspan="4">CODE NO.26 SOLENOID VALVE (PURGE CONTROL)</th></tr>
<tr><th>STEP</th><th>INSPECTION</th><th colspan="2">ACTION</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Are there any poor connections in solenoid valve circuit?</td><td>Yes</td><td>Repair or replace connector</td></tr>
<tr><td>No</td><td>Go to next step</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Is resistance of solenoid valve OK?
Resistance: 25 ± 2Ω</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Replace solenoid valve (Refer to page F–119)</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Is there battery voltage at terminal wire (W/R) of solenoid valve circuit?</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from solenoid valve to main relay</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Is there continuity between solenoid valve and ECU?<table><tr><th>Solenoid valve</th><th>ECU</th></tr><tr><td>B (Y/R)</td><td>2X</td></tr></table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from solenoid valve to ECU</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Is ECU terminal (2X) voltage OK? (Refer to page F–130)</td><td>Yes</td><td>Replace ECU (Refer to page F–127)</td></tr>
<tr><td>No</td><td>Check for short circuit in wiring from solenoid valve to ECU</td></tr>
</table>

05U0FX-089

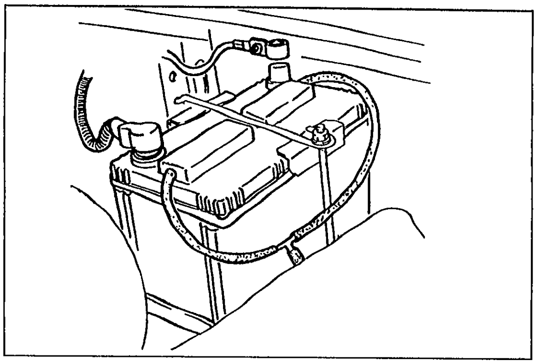
<table>
<tr><th colspan="4">CODE NO.34 ISC VALVE</th></tr>
<tr><th>STEP</th><th>INSPECTION</th><th colspan="2">ACTION</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Are there any poor connections in ISC valve circuit?</td><td>Yes</td><td>Repair or replace connector</td></tr>
<tr><td>No</td><td>Go to next step</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Is resistance of ISC valve OK?
Resistance: 12 ± 1Ω</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Replace ISC valve (Refer to page F–99)</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Is there battery voltage at terminal-wire (W/R) of ISC valve circuit?</td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from ISC valve to main relay</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Is there continuity between ISC valve and ECU?<table><tr><th>ISC valve</th><th>ECU</th></tr><tr><td>B (L/O)</td><td>2W</td></tr></table></td><td>Yes</td><td>Go to next step</td></tr>
<tr><td>No</td><td>Check for open circuit in wiring from ISC valve to ECU</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Is ECU terminal 2W voltage OK? (Refer to page F–130)</td><td>Yes</td><td>Replace ECU (Refer to page F–127)</td></tr>
<tr><td>No</td><td>Check for short circuit in wiring from ISC valve to ECU</td></tr>
</table>

05U0FX-090

Circuit Diagram



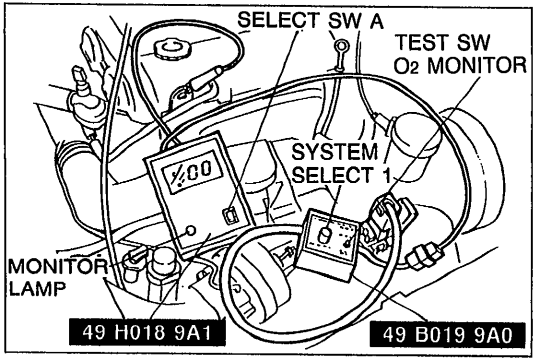
05U0FX-091



05U0FX-092

After-repair Procedure

1. Cancel the memory of malfunctions by disconnecting the negative battery cable and depressing the brake pedal for **at least five seconds**. Reconnect the negative battery cable.

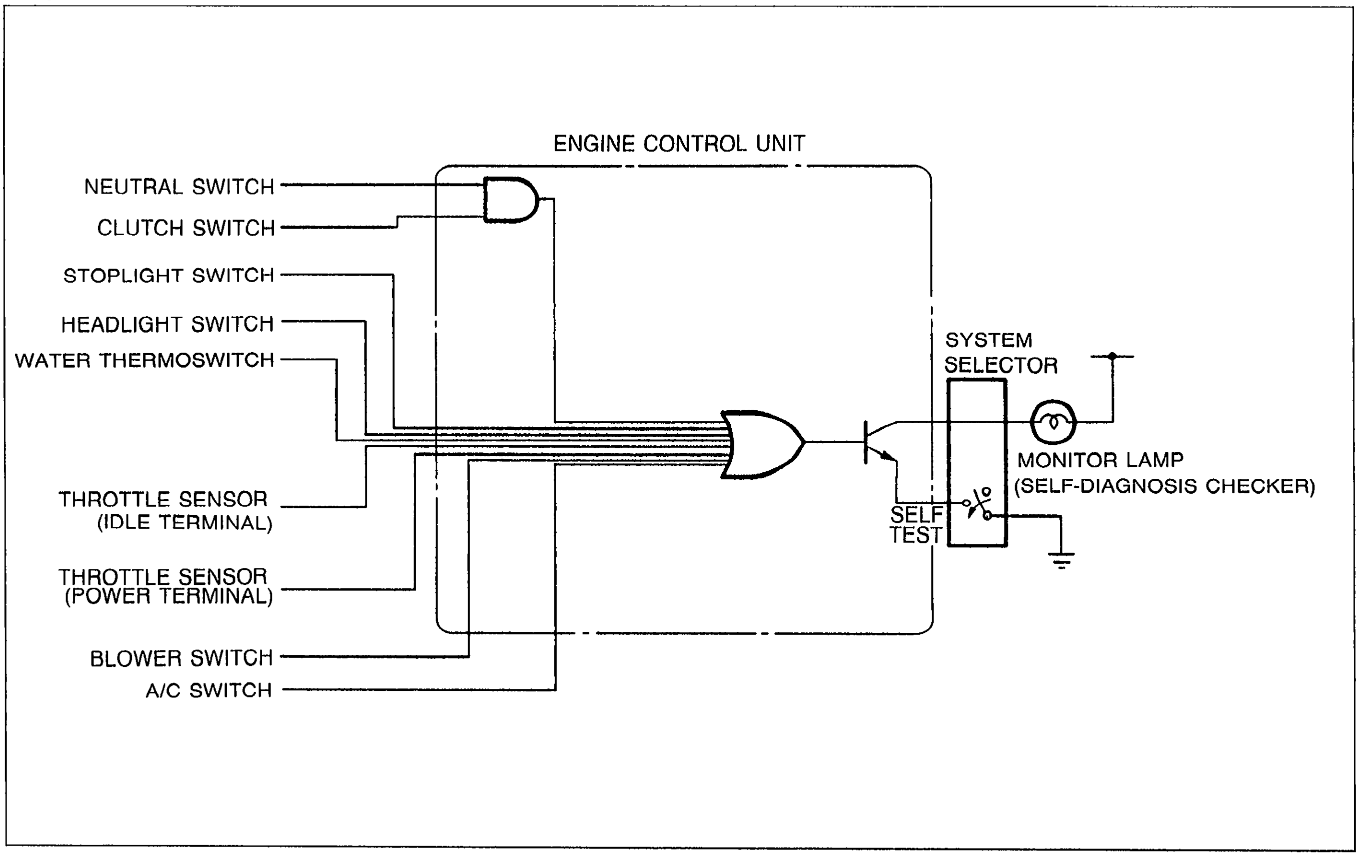

SELECT SW A
TEST SW
O2 MONITOR
SYSTEM
SELECT 1
MONITOR
LAMP
49 H018 9A1
49 B019 9A0

05U0FX-093

2. Connect the **SSTs** to the diagnosis connector as shown.
3. Turn the ignition switch ON, but do not start the engine for **six seconds**.
4. Start and warm up the engine, then run it at **2,000 rpm for three minutes**.
5. Verify that no code numbers are displayed.

SWITCH MONITOR FUNCTION

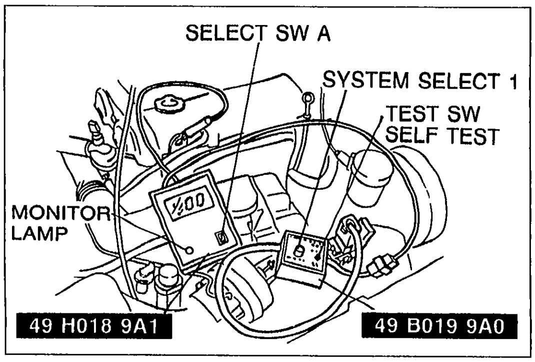
Inspection Procedure


ENGINE CONTROL UNIT
NEUTRAL SWITCH
CLUTCH SWITCH
STOPLIGHT SWITCH
HEADLIGHT SWITCH
WATER THERMOSWITCH
THROTTLE SENSOR (IDLE TERMINAL)
THROTTLE SENSOR (POWER TERMINAL)
BLOWER SWITCH
A/C SWITCH
SYSTEM SELECTOR
MONITOR LAMP (SELF-DIAGNOSIS CHECKER)
SELF TEST

05U0FX-094

Switch	Self-Diagnosis Checker (Monitor lamp)		Remark
	Light ON	Light OFF	
Clutch switch	Pedal released	Pedal depressed	In gear
Neutral switch	In gear	Neutral	Clutch pedal released
Idle terminal	Pedal depressed (not fully)	Pedal released	—
Pow. terminal	Pedal depressed (not fully)	Pedal fully depressed	—
Stoplight switch	Pedal depressed	Pedal released	—
Headlight switch	ON	OFF	—
Blower switch	ON	OFF	Blower motor position: "medium" "high" or "super high" position
A/C switch	ON	OFF	Fan speed control: Low position
Water thermoswitch	Fan operating	Fan not operating	

05U0FX-095


SELECT SW A
SYSTEM SELECT 1
TEST SW
SELF TEST
MONITOR LAMP
49 H018 9A1
49 B019 9A0

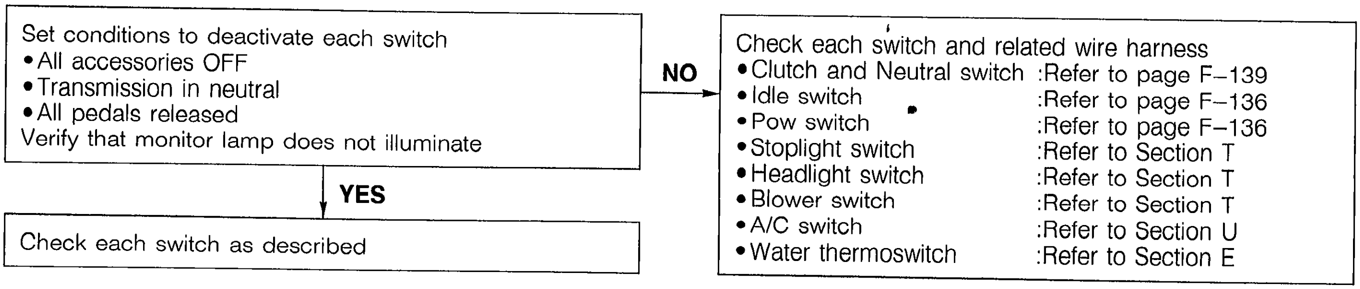
05U0FX-096

1. Connect the **SSTs** to the diagnosis connector as shown.
2. Turn the ignition switch ON. Check if the monitor lamp illuminates when each switch is made to function as described below.

Caution

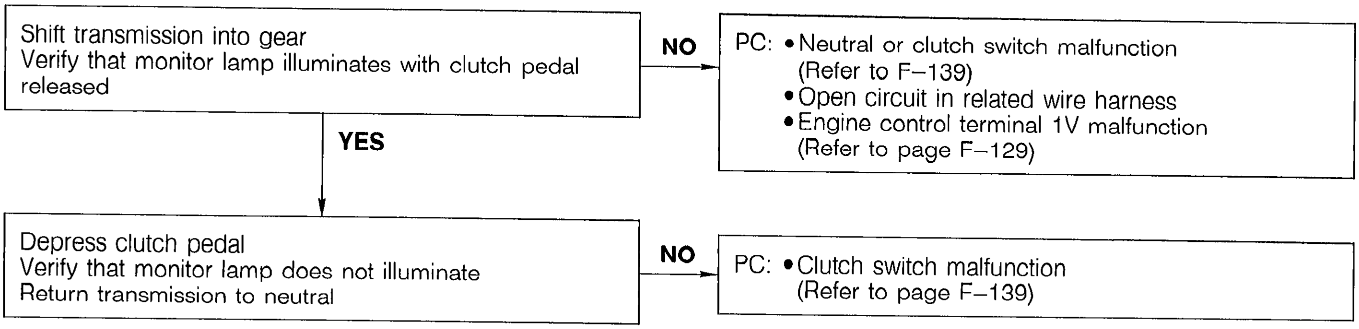
- **If either of the switches remain activated, the monitor lamp will be illuminated.**
- **Do not start the engine.**

Procedure


Set conditions to deactivate each switch
• All accessories OFF
• Transmission in neutral
• All pedals released
Verify that monitor lamp does not illuminate
NO
Check each switch and related wire harness
• Clutch and Neutral switch :Refer to page F–139
• Idle switch :Refer to page F–136
• Pow switch :Refer to page F–136
• Stoplight switch :Refer to Section T
• Headlight switch :Refer to Section T
• Blower switch :Refer to Section T
• A/C switch :Refer to Section U
• Water thermoswitch :Refer to Section E
YES
Check each switch as described

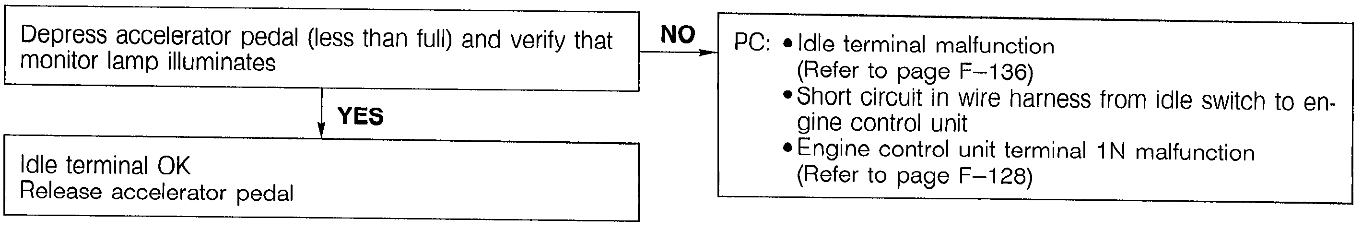
05U0FX-097

Neutral and Clutch switches


Shift transmission into gear
Verify that monitor lamp illuminates with clutch pedal released
NO
PC: • Neutral or clutch switch malfunction (Refer to F–139)
• Open circuit in related wire harness
• Engine control terminal 1V malfunction (Refer to page F–129)
YES
Depress clutch pedal
Verify that monitor lamp does not illuminate
Return transmission to neutral
NO
PC: • Clutch switch malfunction (Refer to page F–139)

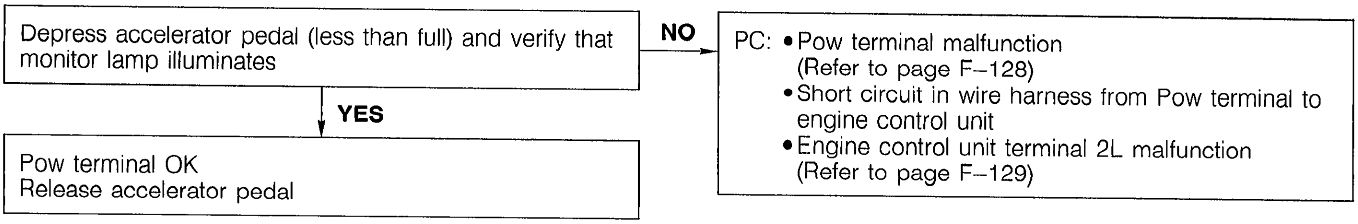
05U0FX-098

Idle terminal


Depress accelerator pedal (less than full) and verify that monitor lamp illuminates
NO
PC: • Idle terminal malfunction (Refer to page F–136)
• Short circuit in wire harness from idle switch to engine control unit
• Engine control unit terminal 1N malfunction (Refer to page F–128)
YES
Idle terminal OK
Release accelerator pedal

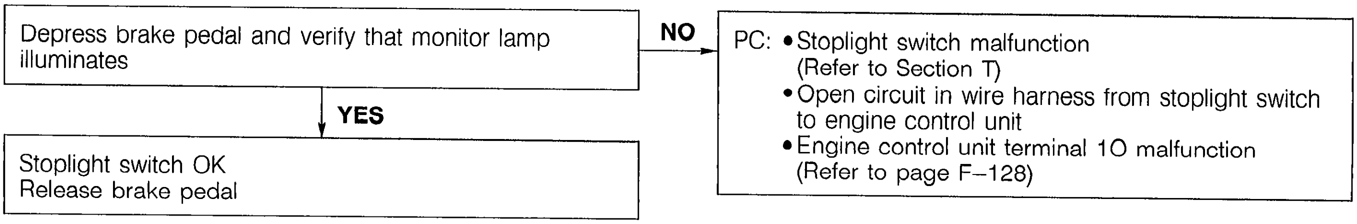
05U0FX-099

Pow terminal


Depress accelerator pedal (less than full) and verify that monitor lamp illuminates
NO
PC: • Pow terminal malfunction (Refer to page F–128)
• Short circuit in wire harness from Pow terminal to engine control unit
• Engine control unit terminal 2L malfunction (Refer to page F–129)
YES
Pow terminal OK
Release accelerator pedal

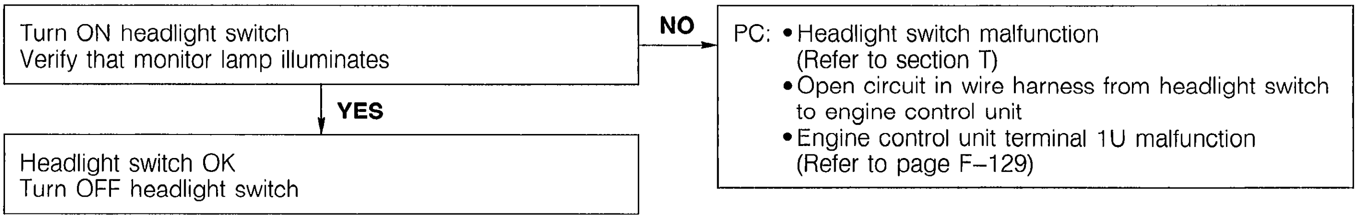
05U0FX-100

Stoplight switch


Depress brake pedal and verify that monitor lamp illuminates
NO
PC: • Stoplight switch malfunction (Refer to Section T)
• Open circuit in wire harness from stoplight switch to engine control unit
• Engine control unit terminal 1O malfunction (Refer to page F–128)
YES
Stoplight switch OK
Release brake pedal

05U0FX-101

Headlight switch



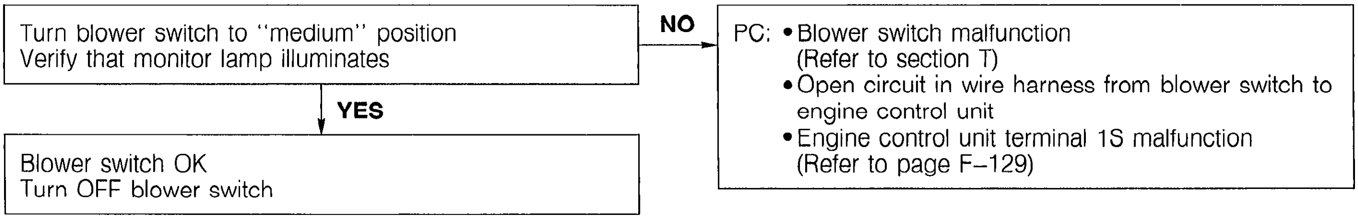
Turn ON headlight switch
Verify that monitor lamp illuminates

Headlight switch OK
Turn OFF headlight switch

PC:
- Headlight switch malfunction (Refer to section T)
- Open circuit in wire harness from headlight switch to engine control unit
- Engine control unit terminal 1U malfunction (Refer to page F–129)

05U0FX-102

Blower switch



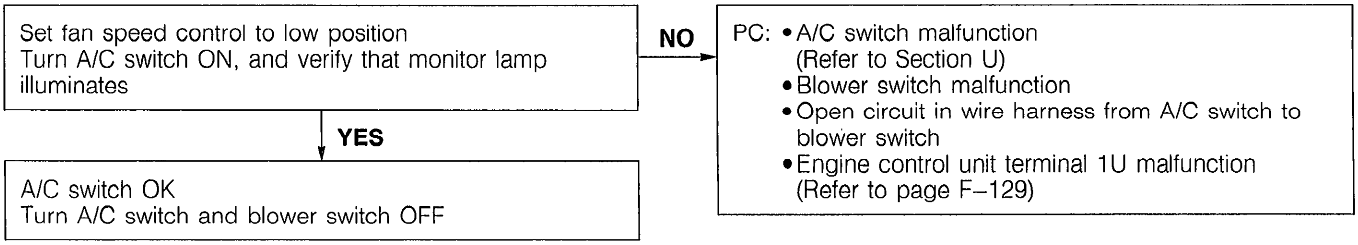
Turn blower switch to "medium" position
Verify that monitor lamp illuminates

Blower switch OK
Turn OFF blower switch

PC:
- Blower switch malfunction (Refer to section T)
- Open circuit in wire harness from blower switch to engine control unit
- Engine control unit terminal 1S malfunction (Refer to page F–129)

05U0FX-103

A/C switch



Set fan speed control to low position
Turn A/C switch ON, and verify that monitor lamp illuminates

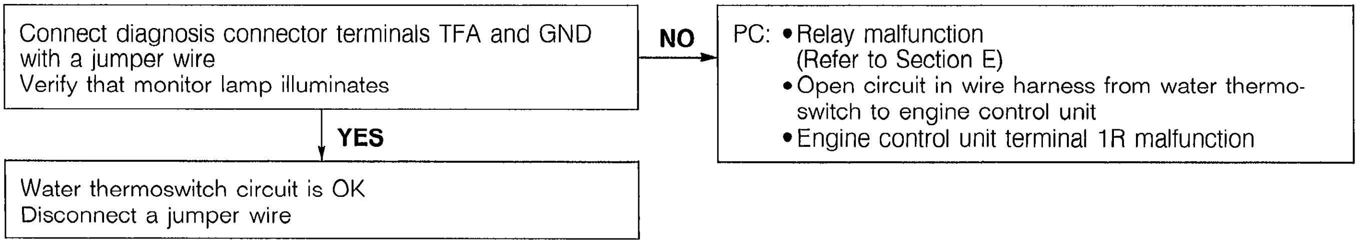
A/C switch OK
Turn A/C switch and blower switch OFF

PC:
- A/C switch malfunction (Refer to Section U)
- Blower switch malfunction
- Open circuit in wire harness from A/C switch to blower switch
- Engine control unit terminal 1U malfunction (Refer to page F–129)

05U0FX-104

Water thermoswitch circuit (not included in switch inspection)

Warning
- **The cooling fan operates when the diagnosis connector terminals TFA and GND are connected a jumper wire. Use caution.**



Connect diagnosis connector terminals TFA and GND with a jumper wire
Verify that monitor lamp illuminates

Water thermoswitch circuit is OK
Disconnect a jumper wire

PC:
- Relay malfunction (Refer to Section E)
- Open circuit in wire harness from water thermoswitch to engine control unit
- Engine control unit terminal 1R malfunction

05U0FX-237

INTAKE AIR SYSTEM

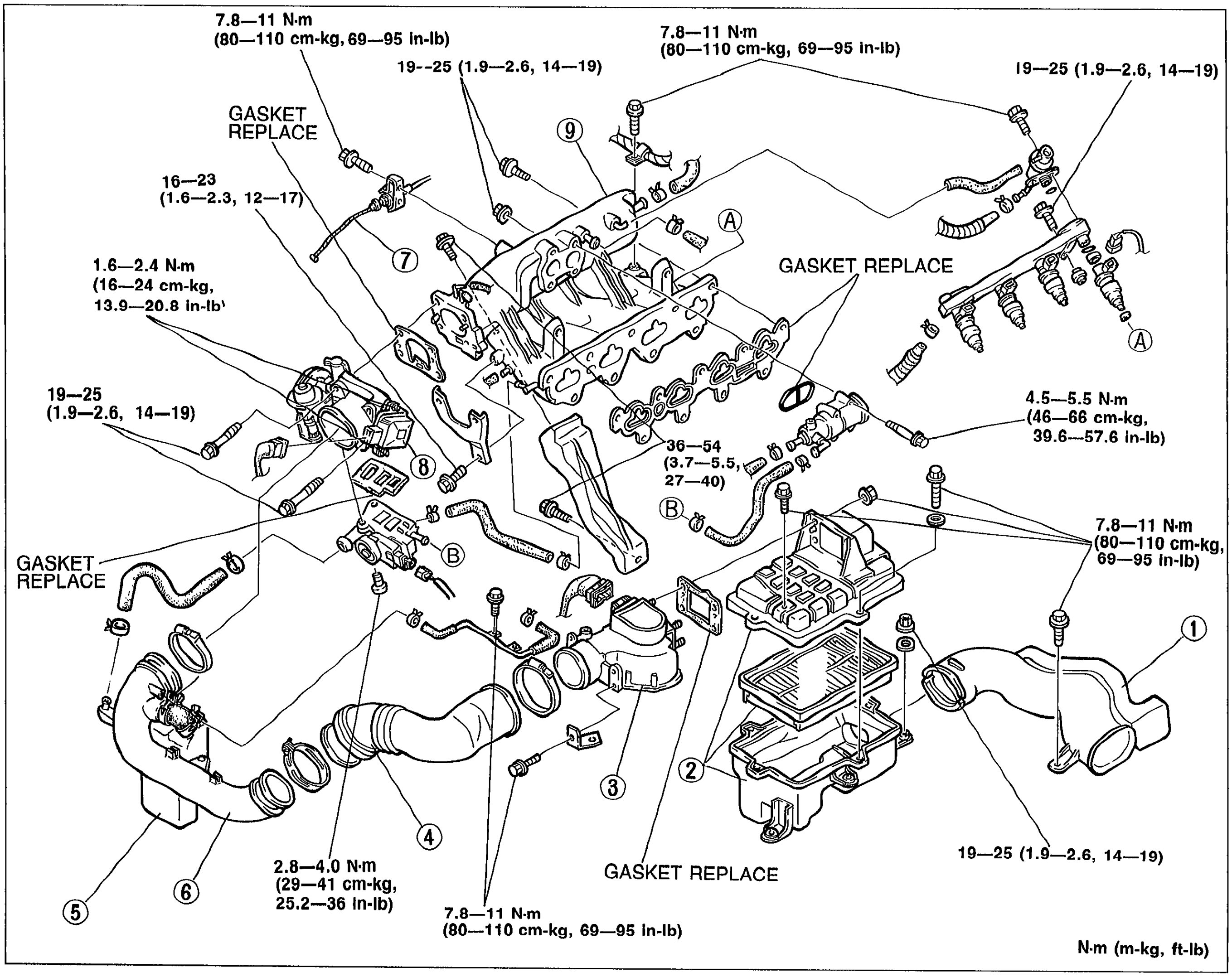
COMPONENTS

Removal / Inspection / Installation

Warning
- **Before removing the intake manifold, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**

Note
- **Before disconnecting the water hoses, drain the engine coolant.**
- **Use new gaskets during reassembly.**

1. Remove in the order shown in the figure.
2. Check the components for damage and repair or replace as necessary.
3. Install in the reverse order of removal.


7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
19--25 (1.9—2.6, 14—19)
19—25 (1.9—2.6, 14—19)
GASKET
REPLACE
⑨
16—23
(1.6—2.3, 12—17)
Ⓐ
⑦
GASKET REPLACE
1.6—2.4 N·m
(16—24 cm-kg,
13.9—20.8 in-lb)
Ⓐ
19—25
(1.9—2.6, 14—19)
4.5—5.5 N·m
(46—66 cm-kg,
39.6—57.6 in-lb)
⑧
36—54
(3.7—5.5,
27—40)
Ⓑ
7.8—11 N·m
(80—110 cm-kg,
69—95 in-lb)
GASKET
REPLACE
Ⓑ
①
③
②
④
19—25 (1.9—2.6, 14—19)
GASKET REPLACE
2.8—4.0 N·m
(29—41 cm-kg,
25.2—36 in-lb)
⑥
⑤
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
N·m (m-kg, ft-lb)

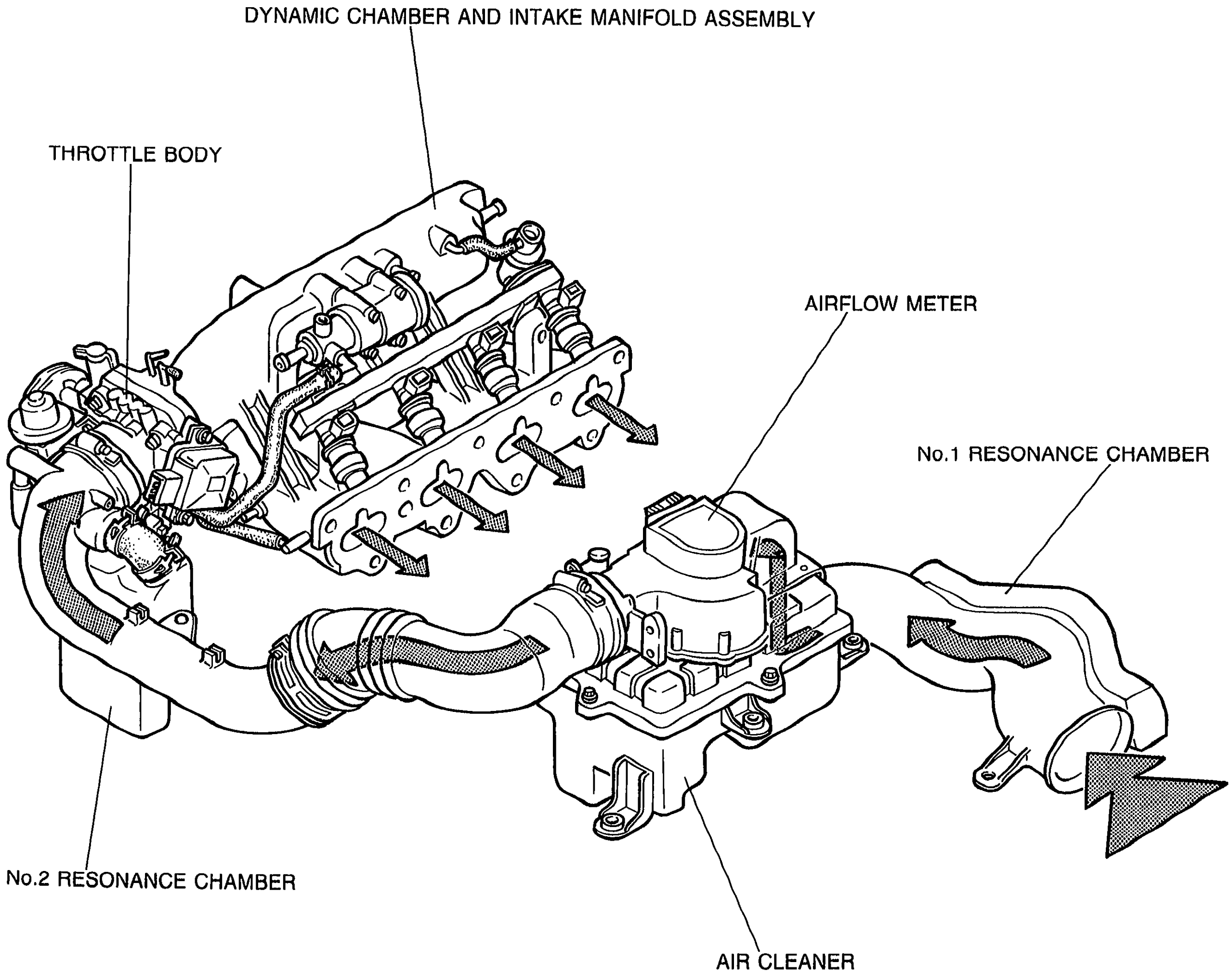
05U0FX-105

1. Air duct
2. Air cleaner
   Inspection .... page F–73
3. Airflow meter
   Inspection / Replacement............ page F–92
4. Air hose
5. Resonance chamber
6. Air pipe
7. Accelerator pedal/cable
   Inspection / Replacement............ page F–96
8. Throttle body
   Removal / Inspection / Installation .... page F–94
9. Intake manifold
   Removal / Installation .... page F–95

SYSTEM OPERATION

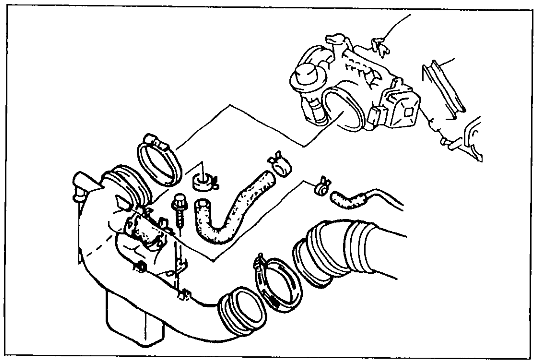
Inspection of Air Leakage

Check for possible air leakage at the points shown and repair or replace as necessary.


DYNAMIC CHAMBER AND INTAKE MANIFOLD ASSEMBLY
THROTTLE BODY
AIRFLOW METER
No.1 RESONANCE CHAMBER
No.2 RESONANCE CHAMBER
AIR CLEANER

05U0FX-106

THROTTLE BODY



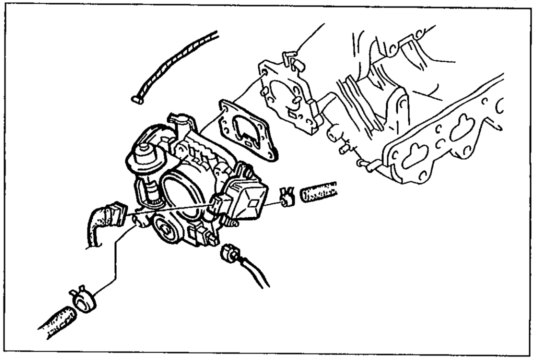
05U0FX-107

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

Removal

1. Remove the negative battery terminal.
2. Remove the air pipe.



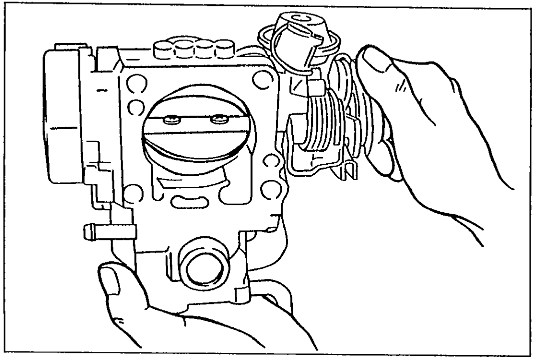
05U0FX-108

3. Remove the accelerator cable from the throttle lever.

Note

- **Before disconnecting the water hoses, drain the engine coolant.**

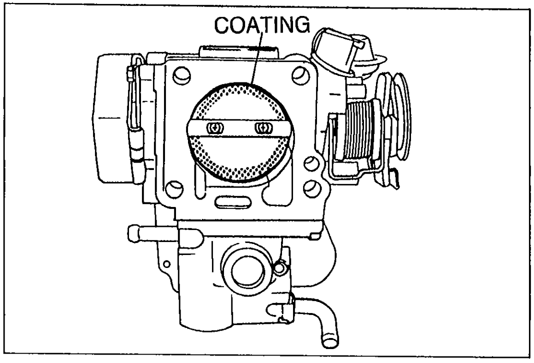
4. Disconnect the water hoses.
5. Disconnect the connectors for the ISC valve and the throttle sensor.
6. Remove the throttle body.



05U0FX-109

Inspection

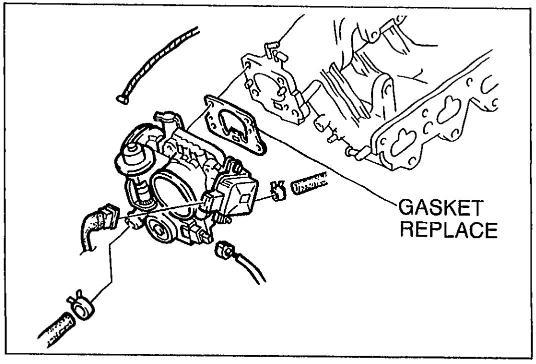
1. Verify that the throttle valve is fully closed.
2. Verify that the throttle valve moves smoothly when the throttle lever is moved from fully closed to fully open.
3. Replace the throttle body if necessary.



05U0FX-110

Caution

- **Do not remove the thin seal coating from the throttle valve or bore.**



05U0FX-111

Installation

Install in the reverse order of removal.

Note

- **Use a new mounting gasket.**

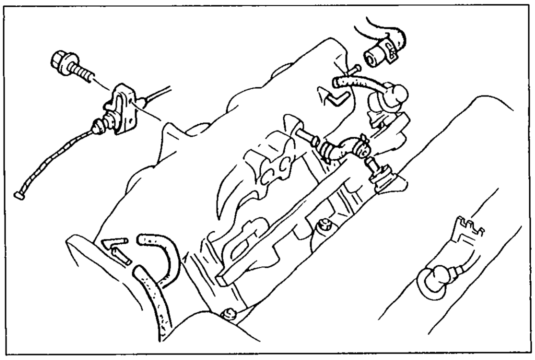
Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

INTAKE MANIFOLD

Removal

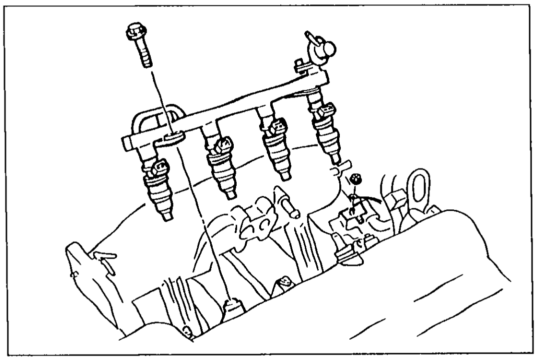
Warning

- **Before removal, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**



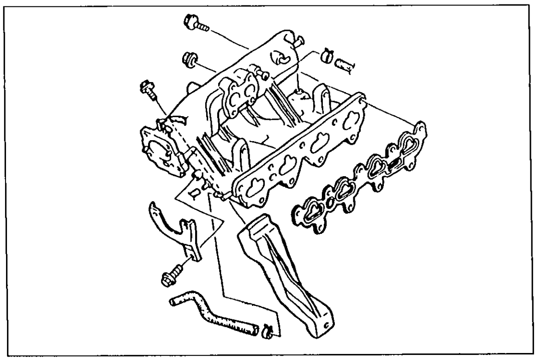
05U0FX-112

1. Remove the throttle body. (Refer to page F–94.)
2. Remove the air valve
3. Disconnect the vacuum hoses.



05U0FX-113

4. Remove the accelerator cable.
5. Disconnect the fuel hoses.
6. Disconnect the connectors from the injectors.
7. Remove the delivery pipe and injectors.
8. Remove the injector harness.



05U0FX-114

8. Remove the intake manifold bracket.
9. Remove the intake manifold.

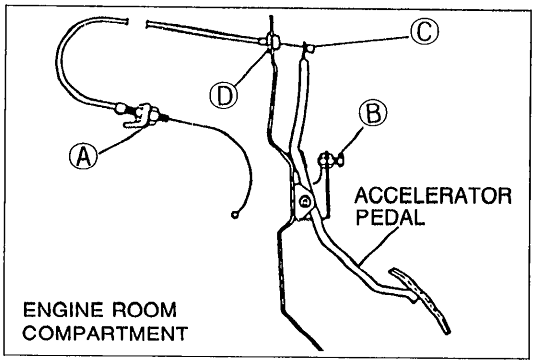
Installation

Install in the reverse order of removal.

Note

- **Use a new mounting gasket.**

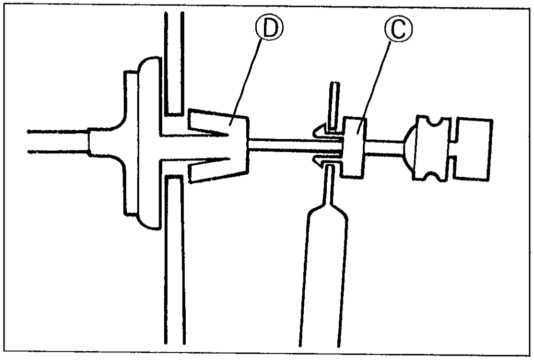
Tightening torque:
Intake manifold and delivery pipe
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)
Injector harness and bracket
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)



05U0FX-115

ACCELERATOR PEDAL AND CABLE
Accelerator Cable
Inspection

1. Check deflection of the cable. If deflection exceeds **1—3mm (0.039—0.118 in)**, adjust it by turning nut A.
2. Depress the accelerator pedal to the floor and verify that the throttle valve opens fully. Adjust with bolt B if necessary.



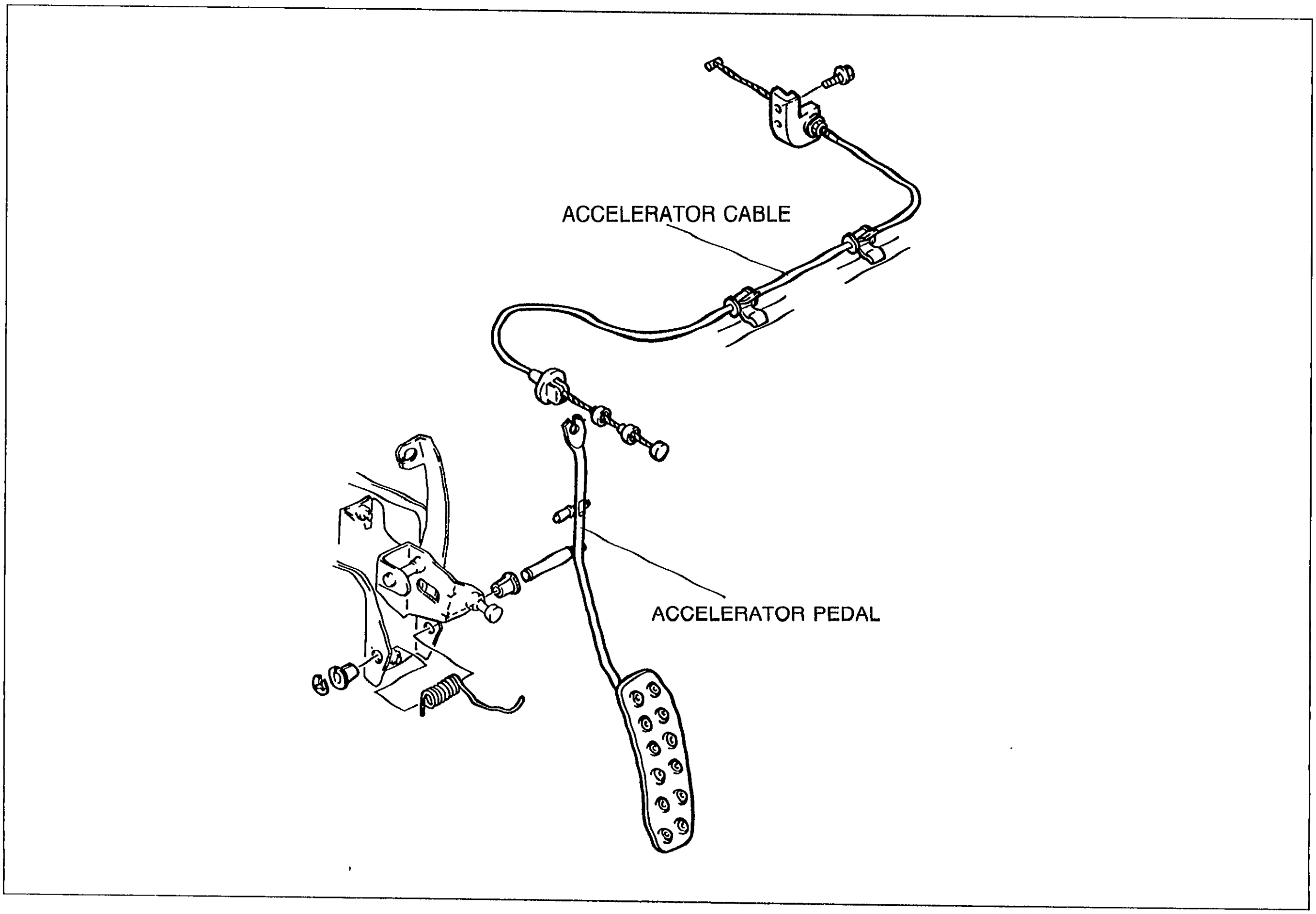
05U0FX-116

Replacement

1. Remove the accelerator cable from the throttle lever.
2. Loosen the throttle adjustment nuts and remove the cable from the bracket.
3. Compress the tabs of stay C and remove the accelerator cable from the pedal arm.
4. Compress the tabs of stay D and push the cable through the firewall.
5. Remove the accelerator cable.
6. Install in the reverse order of removal.
7. Adjust deflection of the cable after installation. (Refer to above.)

Accelerator Pedal
Replacement

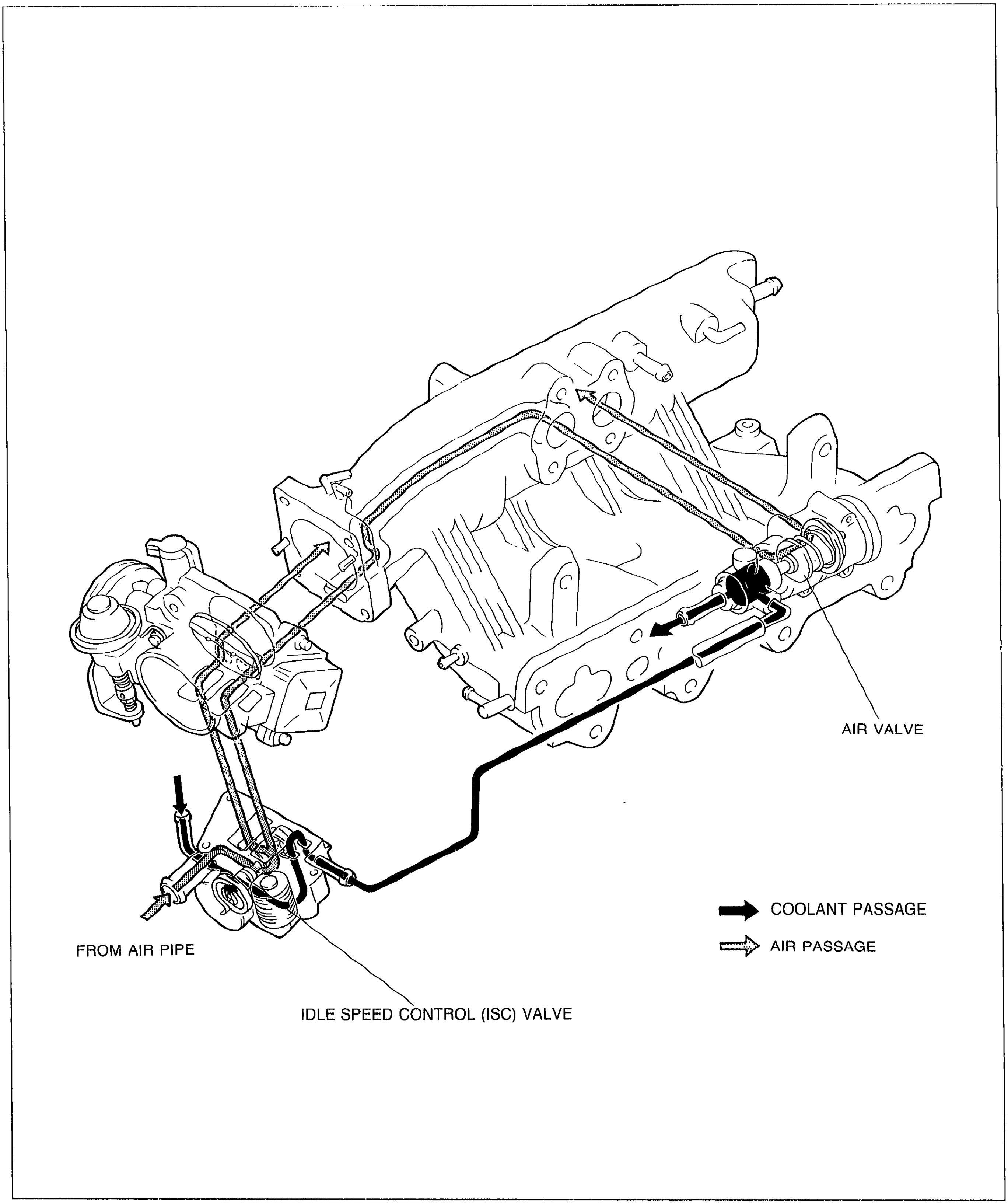
1. Disconnect the accelerator cable.
2. Remove the accelerator pedal as shown in the figure.
3. Install in the reverse order of removal.



05U0FX-117

IDLE SPEED CONTROL (ISC) SYSTEM

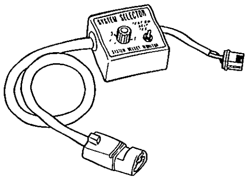
DESCRIPTION


AIR VALVE
COOLANT PASSAGE
AIR PASSAGE
FROM AIR PIPE
IDLE SPEED CONTROL (ISC) VALVE

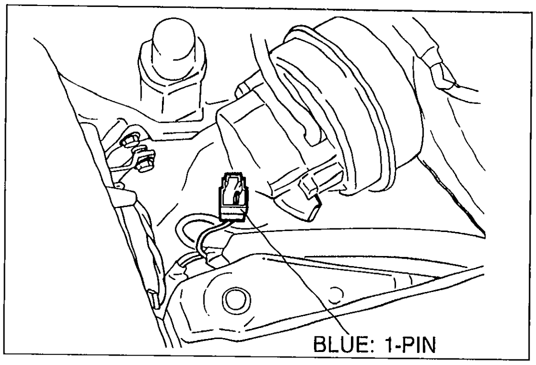
05U0FX-118

To improve idle smoothness, the ISC system controls the intake air amount by regulating amount of the by-pass air that passes through the throttle valve. This system consists of the air valve that functions only when the engine is cold, the ISC valve that works throughout the entire engine speed range, and the control system.

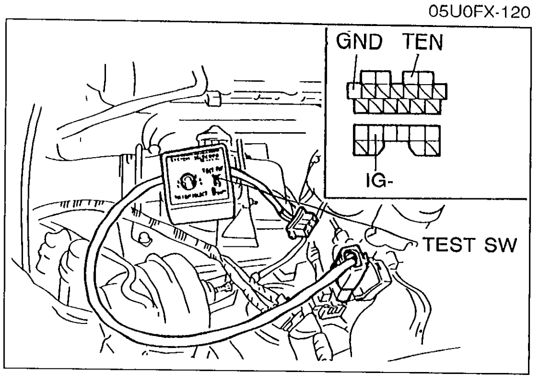
PREPARATION
SST

49 B019 9A0 System Selector 	For inspection of air valve

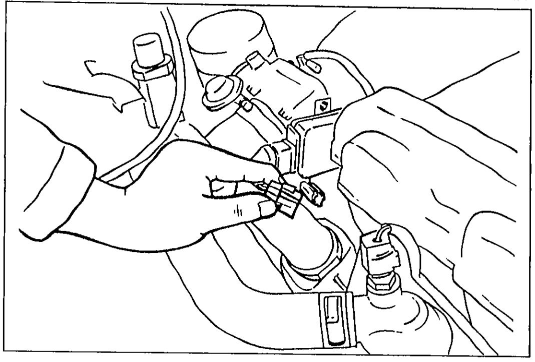
05U0FX-119



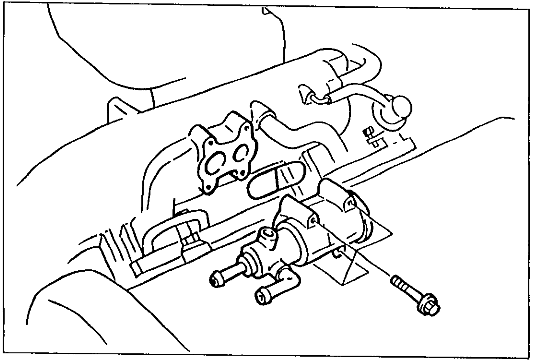
05U0FX-120



05U0FX-121



05U0FX-122



05U0FX-123

SYSTEM OPERATION
Air Valve

—Perform this inspection when the engine is cold. (Engine coolant temperature below 20°C [68°F].)

Note

- **When using an externally powered tachometer connect it to the power connector (Blue: 1-pin).**

Warning

- **Do not ground the power connector terminal (Blue: 1-pin); the wiper 20A fuse will be burned.**

1. Connect a tachometer to the diagnosis connector terminal IG−.

Caution

- **Be extremely careful when making connections to the diagnosis connector as a mistaken connection will cause a malfunction.**

2. Connect the **SST** and set the TEST SW to "SELF TEST" or connect diagnosis connector terminals TEN and GND with a jumper wire.
3. Verify that the engine speed gradually decreases as the engine warms up.
4. Remove the **SST** or the jumper wire.

ISC Valve

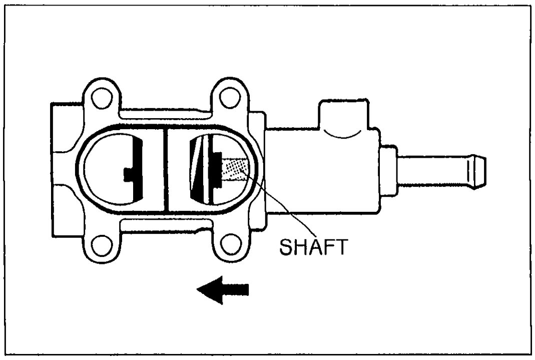
1. Warm up the engine to the normal operating temperautre and run it at idle.
2. Disconnect the ISC valve connector (Black: 2-pin) and verify that the valve clicks and the engine speed increases to **approx. 1,200 rpm**.
3. Reconnect the ISC valve connector.

AIR VALVE
Removal

Note

- **Before disconnecting the water hoses, drain the engine coolant.**

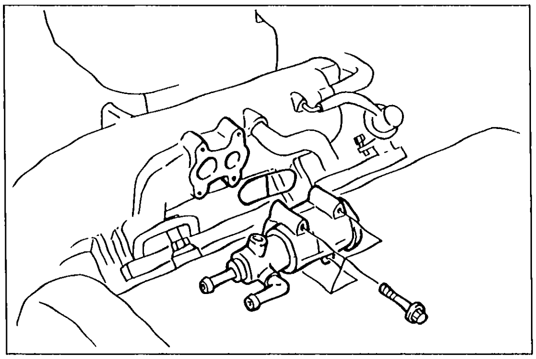
1. Disconnect the water hoses.
2. Remove the air valve from the intake manifold.



05U0FX-124

Inspection

1. Cool the air valve to **0°C (31°F)**.
2. Mark the shaft.
3. Warm the air valve with a hot air gun and verify that the shaft moves in the direction of arrow.
4. Replace the air valve if necessary.



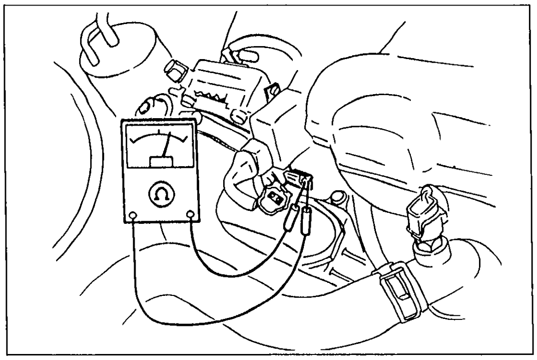
05U0FX-125

Installation

Note
- **Install a new gasket.**

Install in the reverse order of removal.

Tightening torque:
4.9—7.8 N·m (50—80 cm-kg, 43—69 in-lb)



05U0FX-126

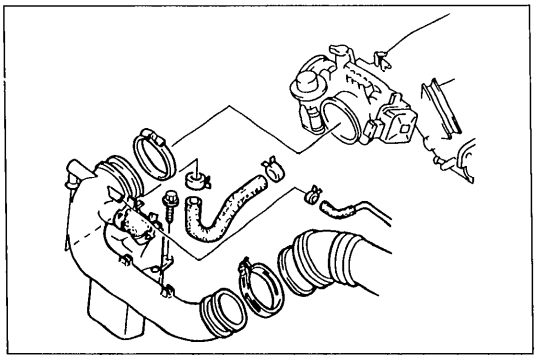
ISC VALVE

Inspection

1. Disconnect the ISC valve connector.
2. Connect an ohmmeter between the terminals of the ISC valve and measure the resistance.

Resistance (at 20°C [68°F]): 12 ± 1Ω

3. If not as specified, replace the ISC valve.



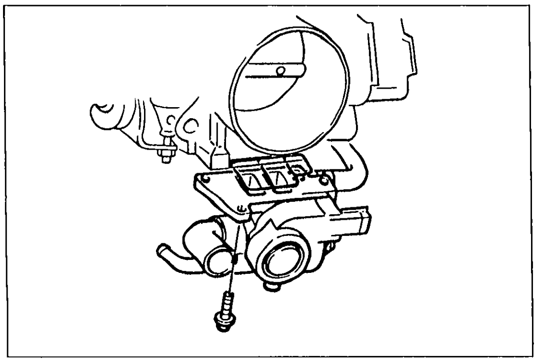
05U0FX-127

Replacement

1. Disconnect the ISC valve connector.
2. Remove the air pipe.

Note
- **Before disconnecting the water hose, drain the engine coolant.**

3. Disconnect the water hose and the air hose.



05U0FX-128

4. Remove the ISC valve.

Note
- **Install a new gasket.**

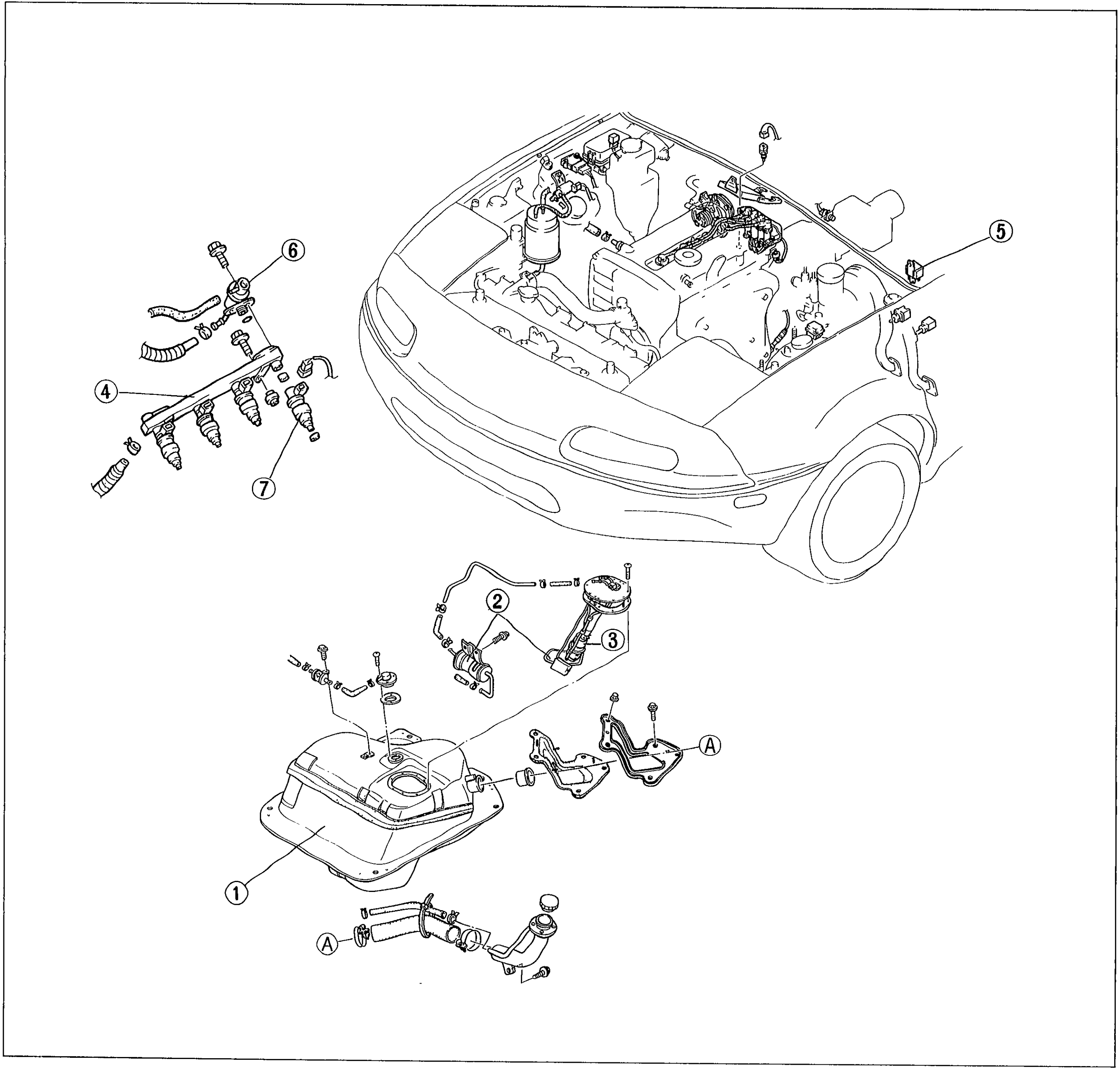
5. Install in the reverse order of removal.

Tightening torque:
2.8—4.0 N·m (29—41 cm-kg, 25—35 in-lb)

FUEL SYSTEM

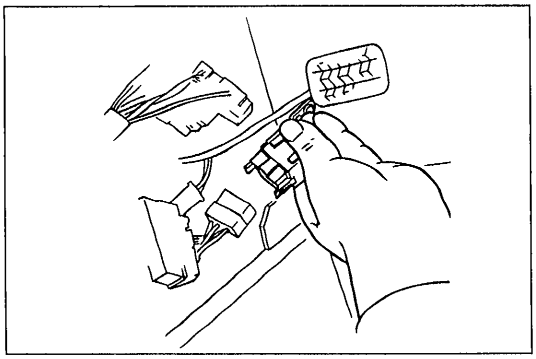
DESCRIPTION

This system supplies the necessary fuel for combustion at a constant pressure to the fuel injectors. Fuel is metered and injected into the intake manifold according to the injection control signals from the engine control unit. The system consists of the fuel tank, the fuel pump, the fuel filters, the delivery pipe, the pressure regulator, the injectors, and the circuit opening relay.

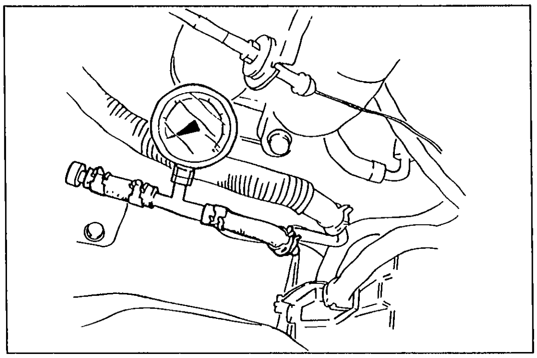


05U0FX-129

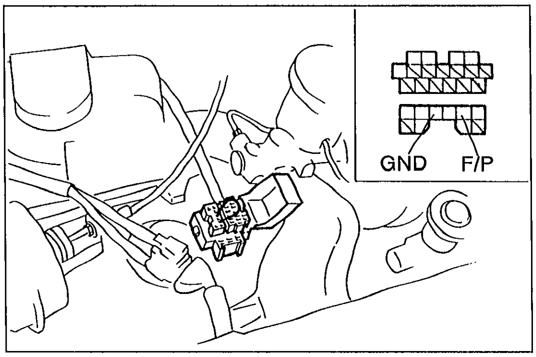
1. Fuel tank
    - Removal / Inspection / Installation .... page F–104
2. Fuel filter
    - Replacement .... page F–106
3. Fuel pump
    - Inspection .... page F–107
    - Replacement .... page F–108
4. Delivery pipe
5. Circuit opening relay
    - Inspection .... page F–110
    - Replacement .... page F–110
6. Pressure regulator
    - Inspection .... page F–111
    - Replacement .... page F–111
7. Injector
    - Inspection .... page F–112
    - Removal .... page F–112
    - Installation .... page F–113



05U0FX-130



05U0FX-131



05U0FX-132

PRECAUTION

Fuel Pressure Release and Servicing Fuel System

Fuel in the fuel system remains under high pressure even when the engine is not running.

a) Before disconnecting any fuel line, release the fuel pressure from the fuel system to reduce the possibility of injury or fire.
  1. Start the engine.
  2. Disconnect the circuit opening relay connector.
  3. After the engine stalls, turn off the ignition switch.
  4. Reconnect the circuit opening relay connector.

b) Use a rag as protection from fuel spray when disconnecting the hoses.
c) Plug the hoses after removal.
d) When inspecting the fuel system, use a suitable fuel pressure gauge.

Caution
- **Install hose clamps when securing the fuel pressure gauge to the fuel pipe and the fuel main hose to prevent fuel leakage.**

Priming Fuel System

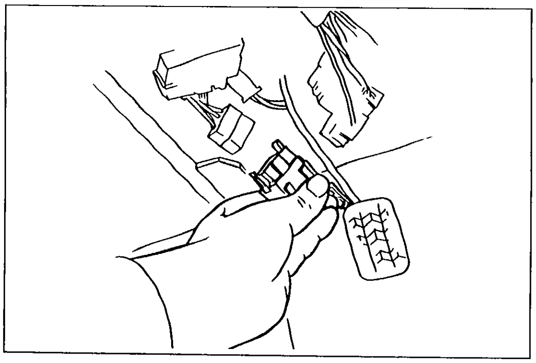
After releasing the fuel system pressure for repairs or inspection, the system must be primed to avoid excessive cranking when first starting the engine. Follow the steps below.

1. Connect diagnosis connector terminals F/P and GND with a jumper wire.
2. Turn the ignition switch ON for **approx. 10 sec.** and check for fuel leaks.
3. Turn the ignition switch OFF and remove the jumper wire.

SYSTEM OPERATION

Caution

- **Obtain the code number and deactivate the anti-theft system before disconnecting the battery. (Refer to page T–113.)**



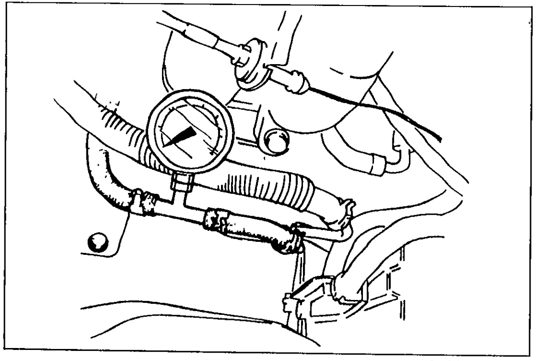
05U0FX-133

Fuel Pressure Hold Inspection

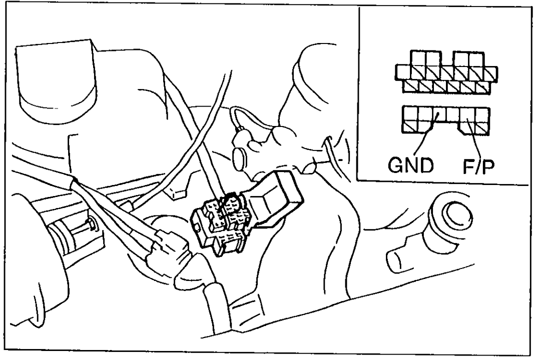
Warning

- **Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**

1. Disconnect the negative battery terminal.
2. Install a fuel pressure gauge between the fuel pipe and the fuel main hose. (Install clamps as shown.)
3. Connect the negative battery terminal.



05U0FX-134



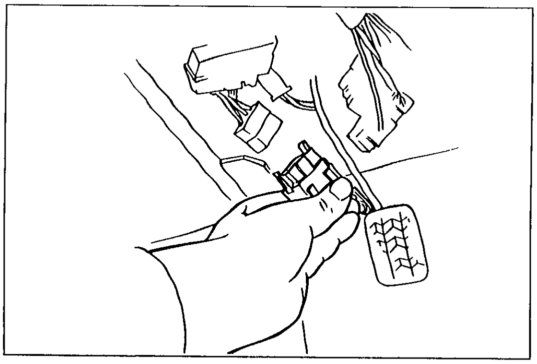
05U0FX-135

4. Connect diagnosis connector terminals F/P and GND with a jumper wire.
5. Turn the ignition switch ON for **10 sec.** to operate the fuel pump.
6. Turn the ignition switch OFF and disconnect the jumper wire.
7. Observe the fuel pressure **after 5 min.**

Fuel pressure:
More than 147 kPa (1.5 kg/cm^2, 21 psi)

8. If not as specified, perform the following inspections.
   - Fuel pump hold pressure (Refer to page F–107.)
   - Pressure regulator hold pressure (Refer to page F–111.)
   - Injector fuel leakage. (Refer to page F–113.)

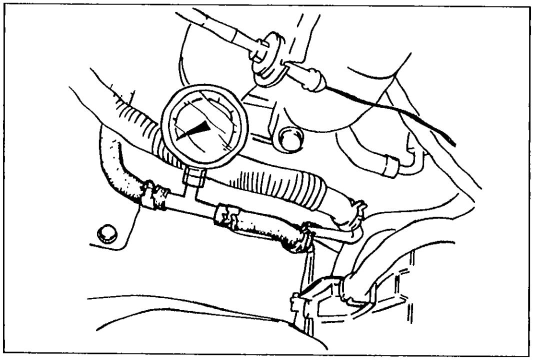
Fuel Line Pressure Inspection



05U0FX-136

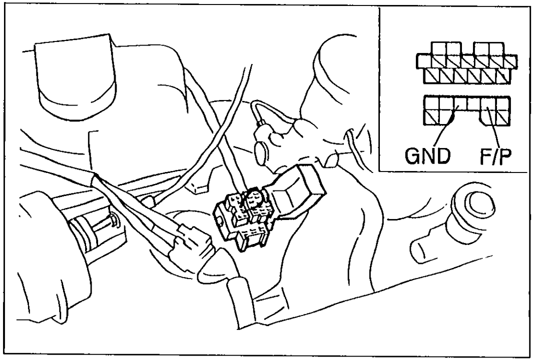
Warning

- **Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**



05U0FX-137

1. Disconnect the negative battery terminal.
2. Install a fuel pressure gauge between the fuel pipe and the fuel main hose. (Install clamps as shown.)
3. Connect the negative battery terminal.



05U0FX-138

4. Connect diagnosis connector terminals F/P and GND with a jumper wire.
5. Turn the ignition switch ON.
6. Measure the fuel line pressure.

Fuel line pressure:
265—314 kPa (2.7—3.2 kg/cm^2, 38—46 psi)

Pressure low	— Check fuel pump maximum pressure. (Refer to page F–108.) If as specified, fuel line or fuel filter might be clogged or restricted.
Pressure high	— Replace the pressure regulator. (Refer to page F–111.)

FUEL TANK

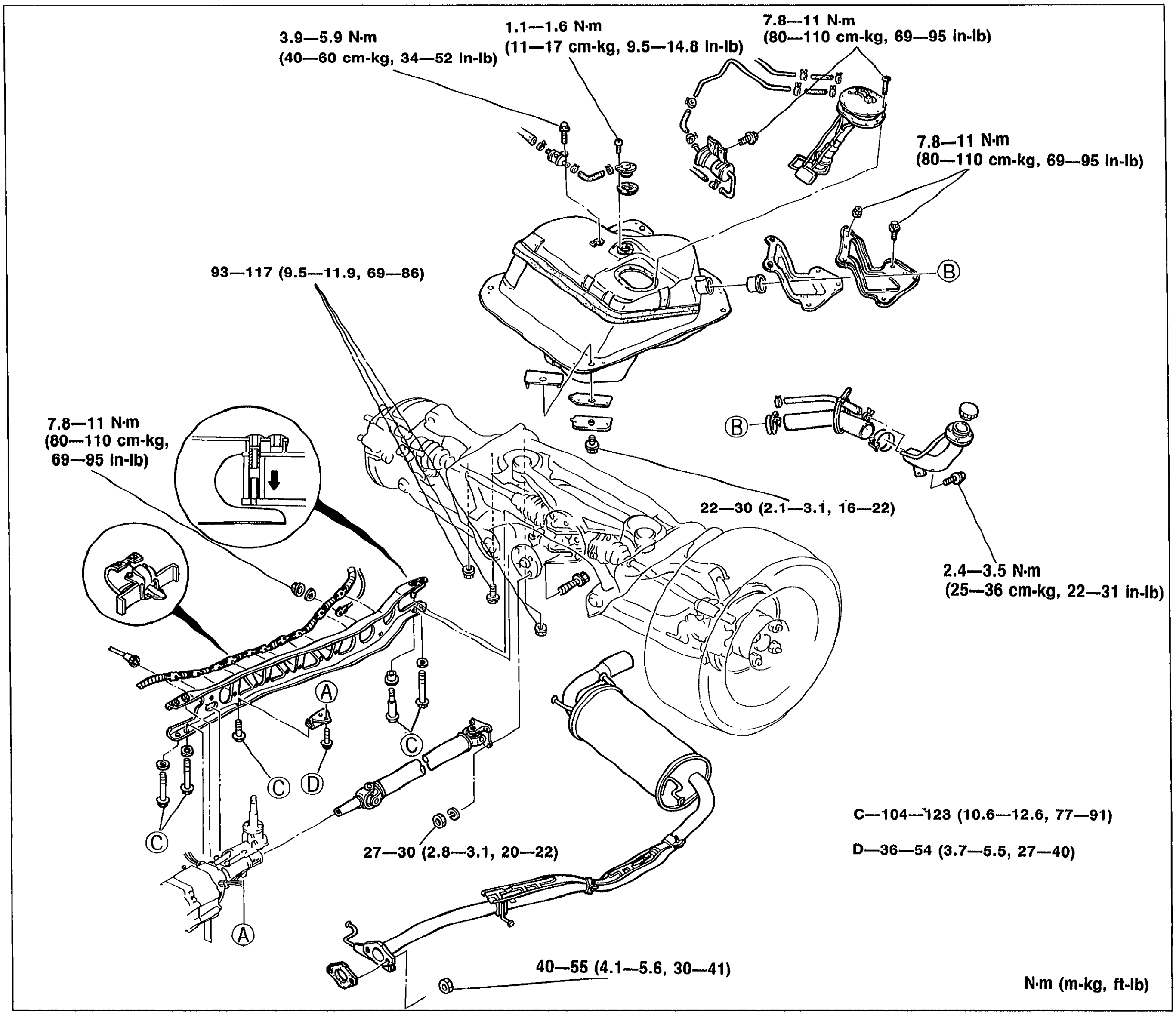
Caution
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

Removal / Inspection / Installation

Warning
- **Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**
- **When removing the fuel tank, keep sparks, cigarettes, and open flames away from the tank.**
- **Before repairing the fuel tank, clean it thoroughly with steam to remove all explosive gas.**

Note
- **Drain the fuel from the fuel tank before removing the tank.**

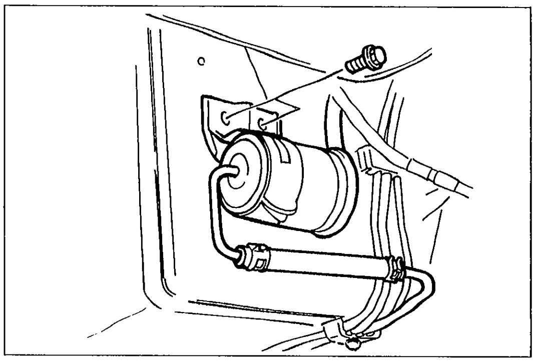
1. Disconnect the negative battery terminal.
2. Remove the main silenser. (Refer to page F–115.)
3. Remove the power plant frame. (Refer to page J–11.)
4. Remove in the order shown in the figure, referring to **Removal Note**.
5. Install in the reverse order of removal, referring to **Installation Note**.


3.9—5.9 N·m
(40—60 cm-kg, 34—52 in-lb)
1.1—1.6 N·m
(11—17 cm-kg, 9.5—14.8 in-lb)
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
B
93—117 (9.5—11.9, 69—86)
7.8—11 N·m
(80—110 cm-kg,
69—95 in-lb)
B
22—30 (2.1—3.1, 16—22)
2.4—3.5 N·m
(25—36 cm-kg, 22—31 in-lb)
A
C
C
D
C
27—30 (2.8—3.1, 20—22)
C—104—123 (10.6—12.6, 77—91)
D—36—54 (3.7—5.5, 27—40)
A
40—55 (4.1—5.6, 30—41)
N·m (m-kg, ft-lb)

05U0FX-139

1. Fuel filler hoses
2. Fuel hoses
3. Evaporative hoses
4. Fuel pump connector
5. Fuel filter bolts
   Removal Note .... page F–105
6. Brake pipe joint
   Removal Note .... page F–105
7. Battery cable
   Removal Note .... page F–105
8. Rear crossmember assembly
   Removal Note .... page F–105
9. Fuel tank unit
10. Tow-way check valve
11. Fuel vapor valve
12. Fuel tank

05U0FX-228

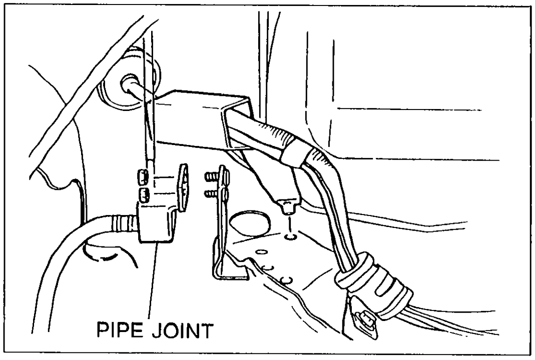


05U0FX-229

Removal note

Fuel filter bolts

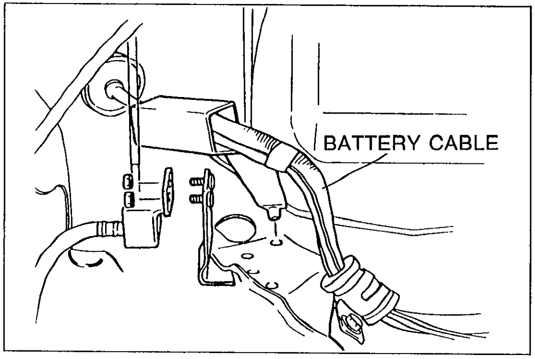
1. Remove the fuel filter cover.
2. Remove the fuel filter bolts.
3. Remove the fuel filter with the fuel hoses still connected.



05U0FX-230

Brake pipe joint

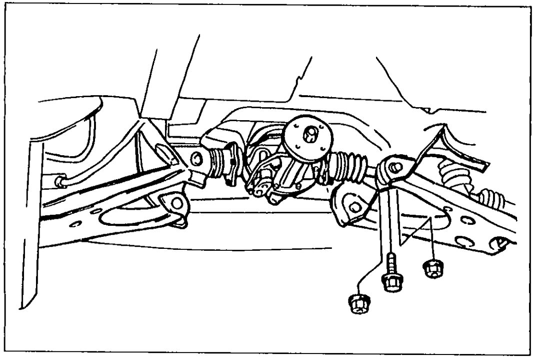
1. Remove the brake pipe joint nuts.
2. Remove the brake pipe joint with the brake pipe and brake hose still connected.



05U0FX-231

Battery cable

1. Remove the battery cable clamp as shown in the figure.



05U0FX-232

Rear crossmember assembly

1. Support the rear crossmember assembly with a transmission jack.
2. Remove the rear crossmember mounting bolts and nuts.

Caution

- **Do not damage the brake hose, brake pipe, or fuel hoses.**

3. Lower the rear crossmember assembly.

Installation note

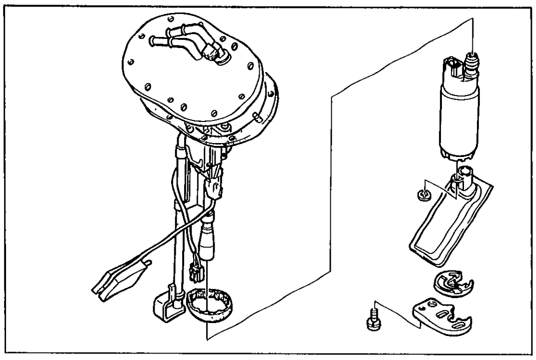
Fuel hoses and fuel filler hoses

- Push the ends of the main fuel hose, fuel return hose, and evaporation hose onto the fuel tank fittings **at least 25mm (1.0 in)**.
- Push the fuel filler hose onto the fuel tank pipe and filler pipe **at least 35mm (1.4 in)**.

Power plant frame

- Install the power plant frame referring to the installation procedure on page J–46.

05U0FX-140

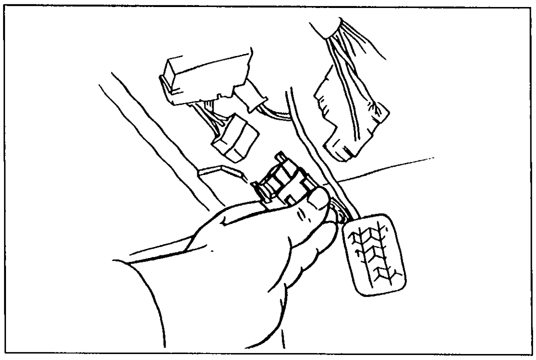


05U0FX-141

FUEL FILTER

Replacement

Low-pressure side (In-tank filter) (Refer to page F–109.)



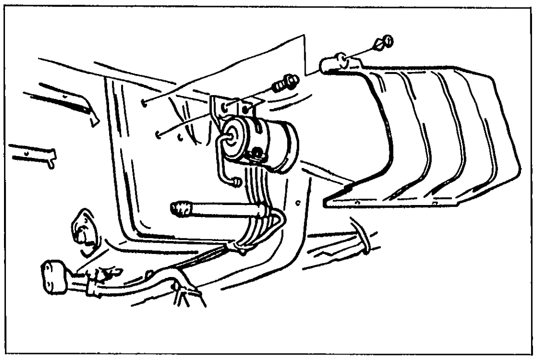
05U0FX-142

High-pressure side

The fuel filter must be replaced at the intervals outlined in the maintenance schedule.

Warning

- **Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**
- **When replacing fuel system components, keep sparks, cigarettes, and open flames away from the fuel.**



05U0FX-143

1. Raise the rear of the vehicle and support it with safety stands.
2. Remove the fuel filter protector.
3. Disconnect the fuel hoses from the fuel filter.
4. Remove the fuel filter and bracket.

Note

- **When installing the filter, push the fuel hoses fully onto the fuel filter.**

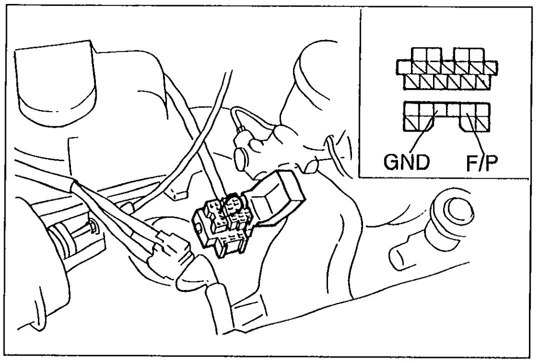
5. Install in the reverse order of removal.

Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

FUEL PUMP

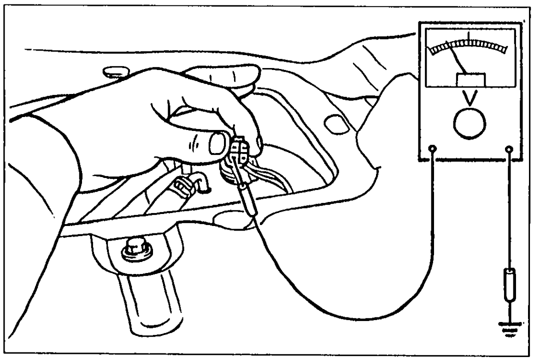
Caution
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

Inspection
Fuel pump operation



05U0FX-144

1. Connect the diagnosis connector terminals F/P and GND with a jumper wire.
2. Remove the fuel filler cap.
3. Turn the ignition switch ON.
4. Listen for operational sound of the fuel pump at the filler inlet.
5. Install the fuel filler cap.

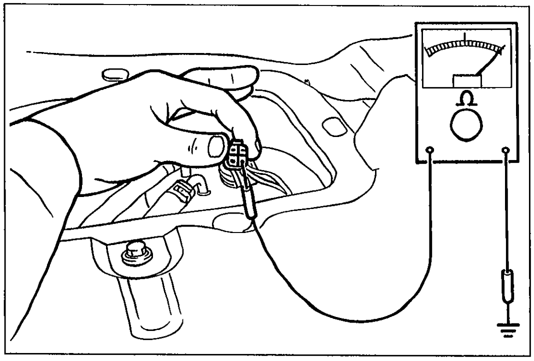


05U0FX-145

6. If no sound was heard, measure the voltage between the fuel pump connector wire to ground.

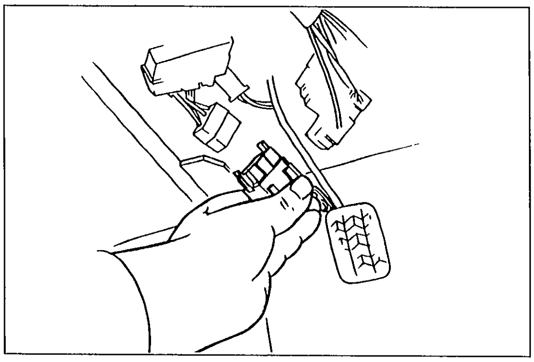
Voltage: 12V

7. If not correct, check the circuit opening relay and its circuits. (Refer to page F–109.)



05U0FX-146

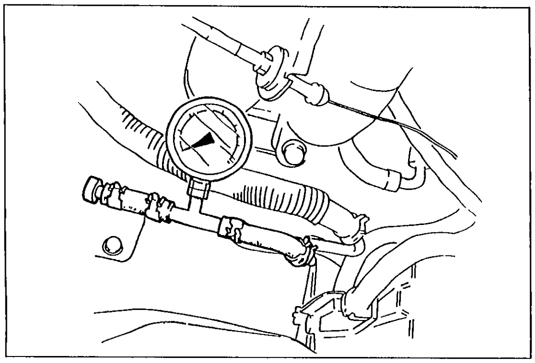
8. If the voltage is normal, check for continuity between fuel pump connector (B) and a ground.
9. If there is continuity, replace the fuel pump.
10. If no continuity, repair the ground circuit.



05U0FX-147

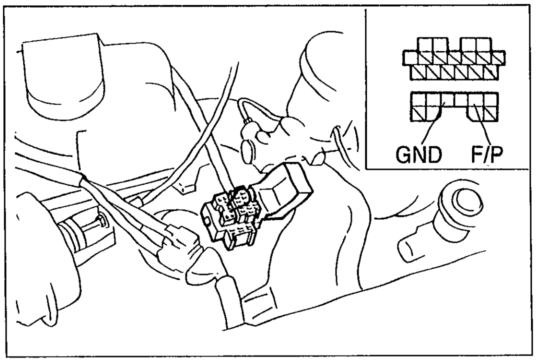
Hold pressure
Perform this inspection if the fuel pressure hold inspection is not as specified. (Refer to page F–102.)

Warning
- **Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**



05U0FX-148

1. Disconnect the negative battery terminal.
2. Connect a fuel pressure gauge to the fuel main pipe and plug the outlet of the fuel pressure gauge as shown. (Install clamps as shown.)
3. Connect the negative battery terminal.



05U0FX-149

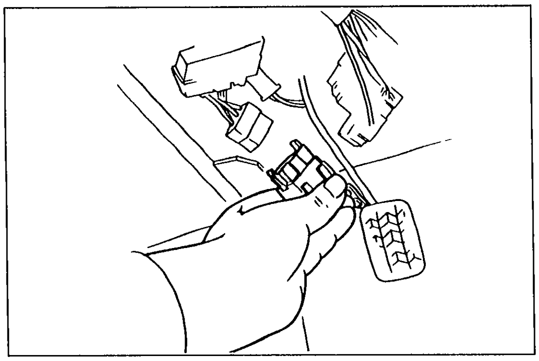
4. Connect diagnosis connector terminals F/P and GND with a jumper wire.
5. Turn the ignition switch ON **for 10 sec.** to operate the fuel pump.
6. Turn the ignition switch OFF and disconnect the jumper wire.
7. Observe the fuel pressure **after 5 min.**.

Fuel pressure:
More than 343 kPa (3.5 kg/cm^2, 50 psi)

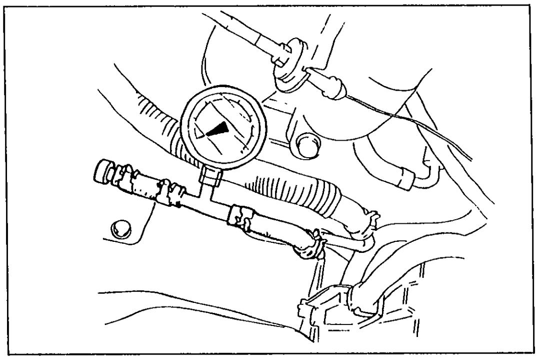
8. If not as specified, replace the fuel pump.

Fuel pump maximum pressure

Warning
- **Before performing the following operation, relase the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**

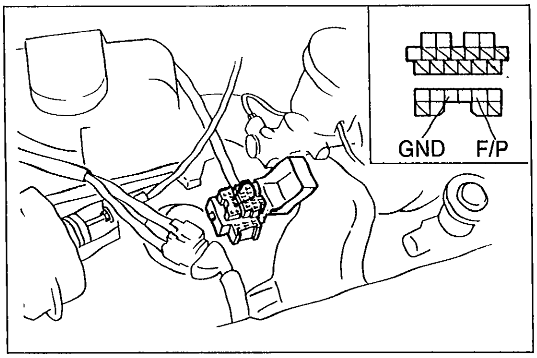


05U0FX-150



05U0FX-151

1. Disconnect the negative battery terminal.
2. Connect a fuel pressure gauge to the fuel main pipe and plug the outlet of the fuel pressure gauge as shown. (Install clamps as shown.)
3. Connect the negative battery terminal.



05U0FX-152

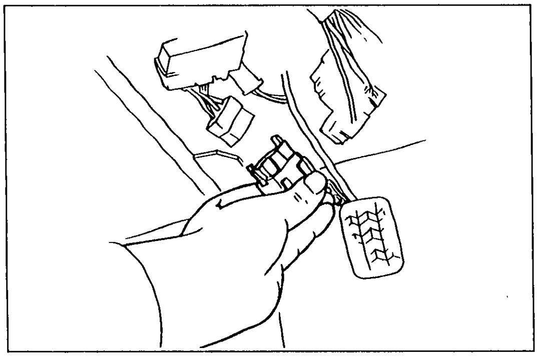
4. Connect diagnosis connector terminals F/P and GND with a jumper wire.
5. Turn the ignition switch ON to operate the fuel pump.
6. Measure the pump maximum pressure.

Fuel pump maximum pressure:
441—589 kPa (4.6—6.0 kg/cm^2, 64—85 psi)

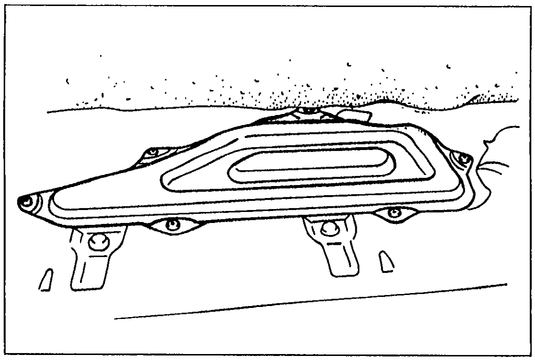
7. Turn the ignition switch OFF and disconnect the jumper wire.
8. If not as specified, replace the fuel pump.

Replacement

Warning
- **Before performing the following procedures, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**
- **When replacing the fuel system parts, keep sparks, cigarettes, and open flames away from the fuel.**

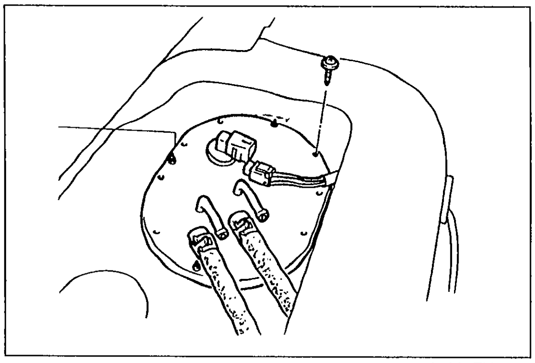


05U0FX-153



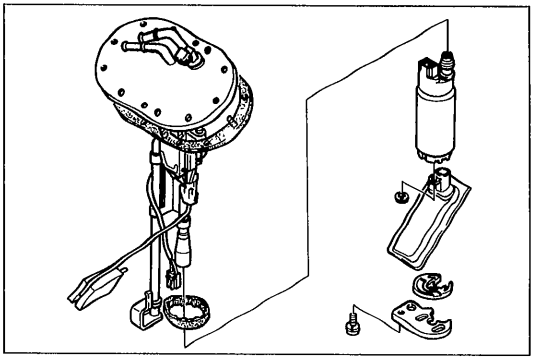
05U0FX-154

1. Remove the rear package trim.
2. Remove the service hole cover.



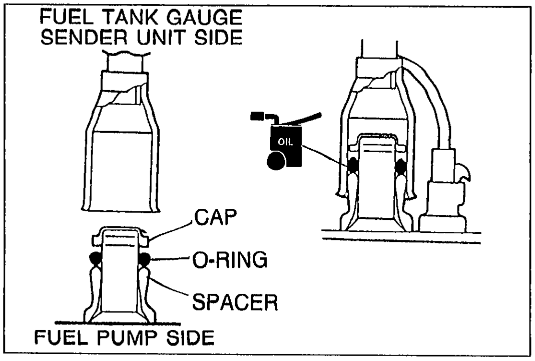
05U0FX-155

4. Remove the fuel pump cover.
5. Disconnect the fuel pump connector.
6. Disconnect the fuel hoses.
7. Remove the fuel pump and fuel tank gauge sender unit assembly.



05U0FX-156

8. Remove the fuel pump.
9. Install in the reverse order of removal, referring to **Installation Note**.

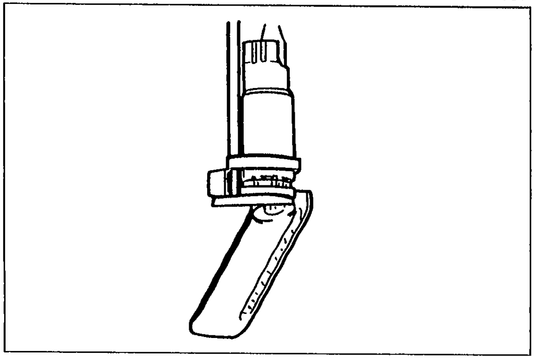


05U0FX-157

Installation note

O-ring set

1. Use a new O-ring set. (O-ring, cap, and spacer)
2. Apply oil or fuel to the O-ring set before installing.
3. To confirm sealing of the O-ring, after assembling the fuel pump and fuel tank gauge sender unit, blow air through the fuel main pipe and verify that no air flows.
   If air flows the check ball may be stuck. Shake the fuel pump 2 or 3 times and recheck.

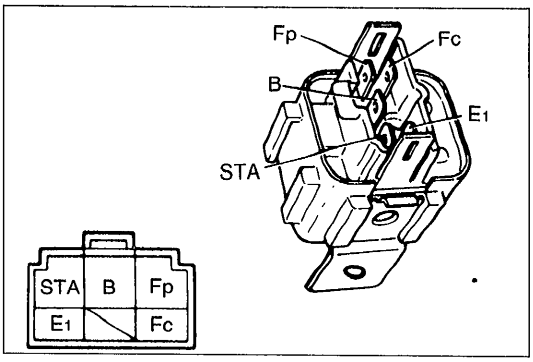


05U0FX-233

Fuel pump

1. After installing the fuel pump to the bracket, pull down the fuel pump down so that it is tight against the bracket.

CIRCUIT OPENING RELAY
Inspection
Switching operation



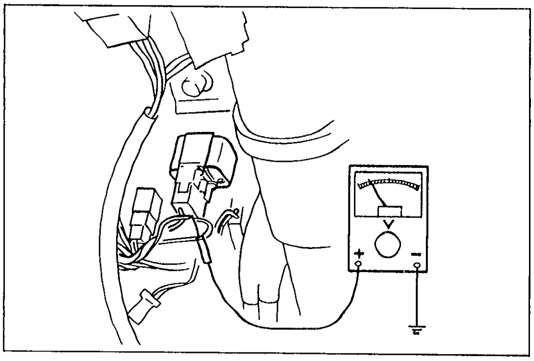
9MU0F2-150

Apply 12V and a ground to the terminals below and check the circuit opening relay operation as described.

12V	Grounded	Correct result
STA	E_1	B-Fp: Continuity
B	Fc	Fp: Battery voltage

If not as specified, replace the circuit opening relay.

Relay circuit



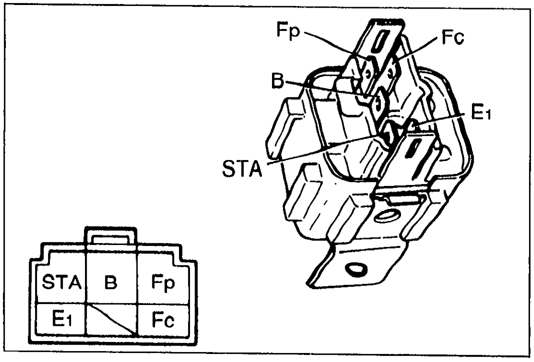
05U0FX-158

Measure voltage between the terminals and a ground with a voltmeter.

Terminal Condition	Fp	Fc	B	STA	E1
Ignition switch: ON	0V	12V	12V	0V	0V
Ignition switch: START	12V	0V	12V	12V	0V
At idle	12V	0V	12V	0V	0V

If not as specified, check the related wiring harness.

Resistance



05U0FX-159

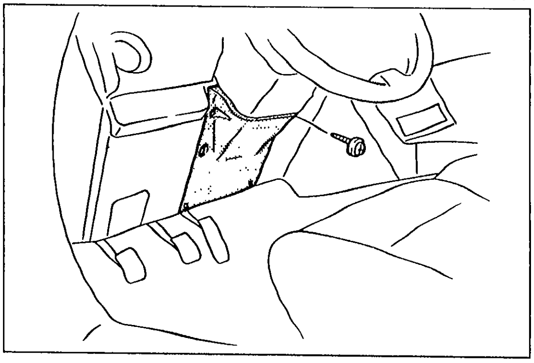
Measure resistance between the terminals with an ohmmeter.

Between terminals	Resistance (Ω)
STA-E_1	21—43
B-Fc	109—226
B-Fp	∞

If not as specified, replace the circuit opening relay.

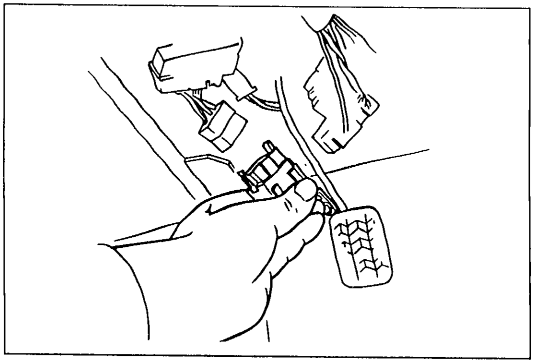
Replacement

1. Remove the undercover.



05U0FX-160

2. Remove the circuit opening relay.
3. Install in the reverse order of removal.

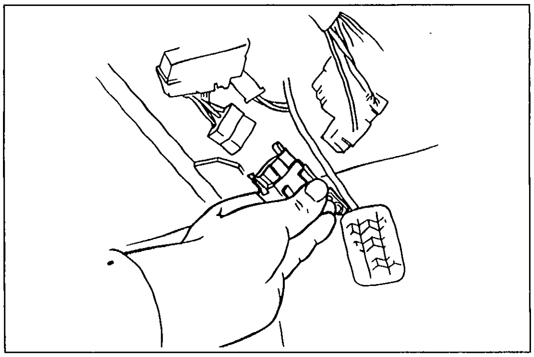


05U0FX-161

PRESSURE REGULATOR

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**



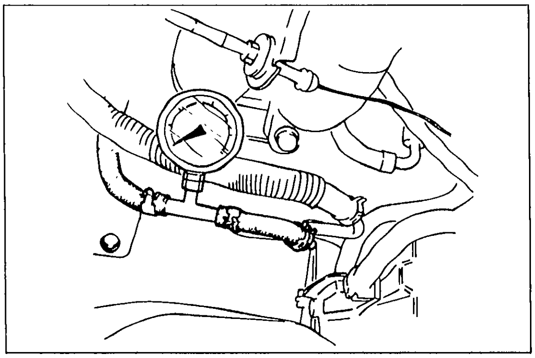
05U0FX-162

Inspection

Fuel line pressure

Warning

- **Before performing the following operation, relase the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**



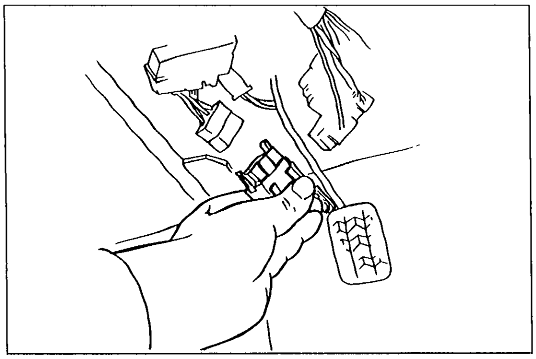
05U0FX-163

1. Disconnect the negative battery terminal.
2. Connect a fuel pressure gauge between the fuel main pipe and the fuel main hose. (Install clamps as shown.)
3. Connect the negative battery terminal.
4. Start the engine and run it at idle.
5. Measure the fuel line pressure.

Fuel line pressure:
216—265 kPa (2.2—2.7 kg/cm^2, 31—38 psi)

Hold pressure

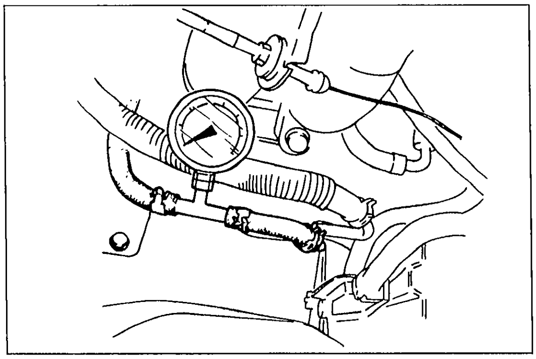
Perform this inspection if the fuel pressure hold inspection is not as specified. (Refer to page F–102.)



05U0FX-164

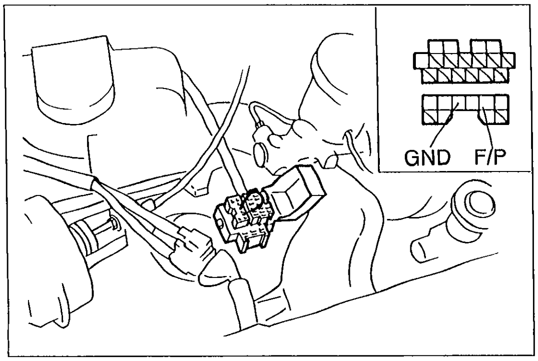
Warning

- **Before performing the following operation, relase the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**



05U0FX-165

1. Disconnect the negative battery terminal.
2. Install a fuel pressure gauge between the fuel pipe and the fuel main hose. (Install clamps as shown.)
3. Connect the negative battery terminal.

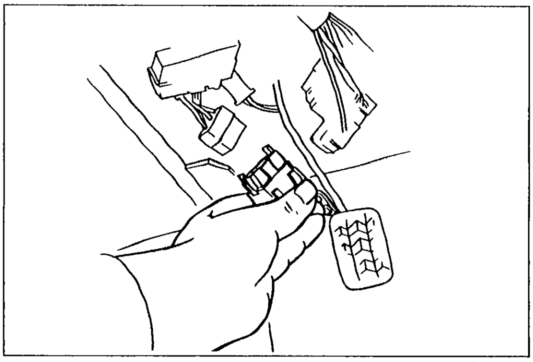


05U0FX-166

4. Connect diagnosis connector terminals F/P and GND with a jumper wire.
5. Turn the ignition switch ON **for 10 sec.** to operate the fuel pump.
6. Turn the ignition switch OFF and disconnect the jumper wire.
7. Block the outlet of the pressure regulator.
8. Observe the fuel pressure **for 5 min.**.

Fuel pressure:
More than 147 kPa (1.5 kg/cm^2, 21 psi)

9. If pressure is as specified, replace the pressure regulator.

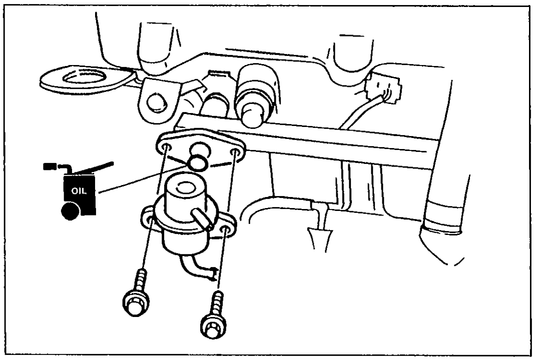


05U0FX-167

Replacement

Warning

- **Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**
- **When replacing fuel system components, keep sparks, cigarettes, and open flames away from the fuel.**



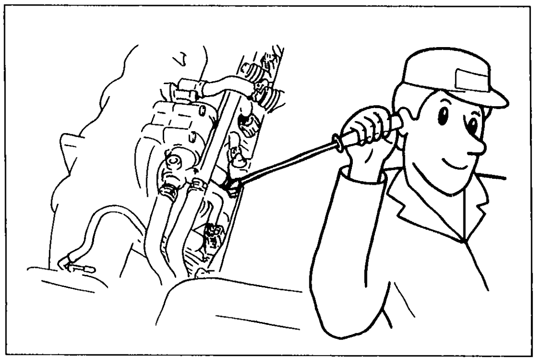
05U0FX-168

1. Disconnect the vacuum hose.
2. Disconnect the fuel return hose.
3. Remove the pressure regulator.

Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

4. Use new O-ring.
5. Install in the reverse order of removal.

INJECTOR



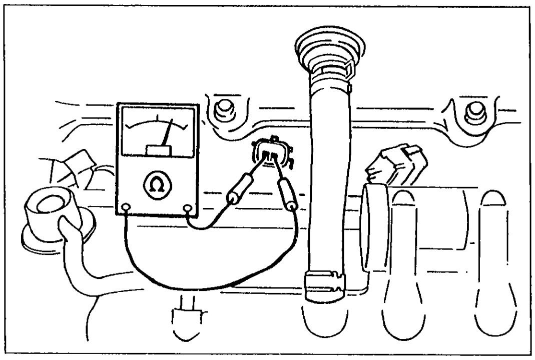
05U0FX-169

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

Inspection
Operation check

1. Warm up the engine and run it at idle.
2. Listen for operational sound of the injector with a screwdriver or a sound scope.
3. If no sound is heard, measure injector resistance.
4. If the injector resistance is OK, check wiring to the injector and engine control unit terminals 2A, 2U, and 2V voltages. (Refer to page F–130.)



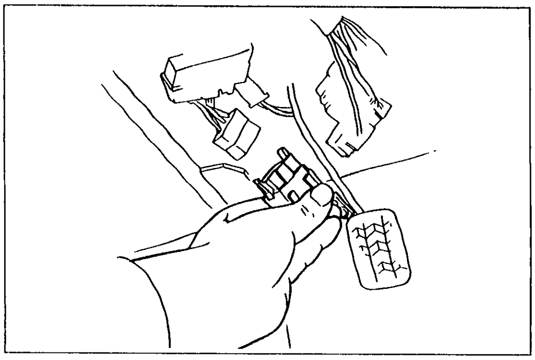
05U0FX-170

Injector resistance

1. Disconnect the injector harness.
2. Measure resistance of the injector with an ohmmeter.

Resistance: 12—16Ω

3. If not as specified, replace the injector.

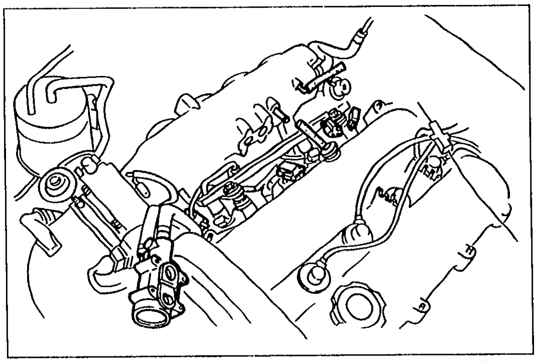


05U0FX-171

Removal

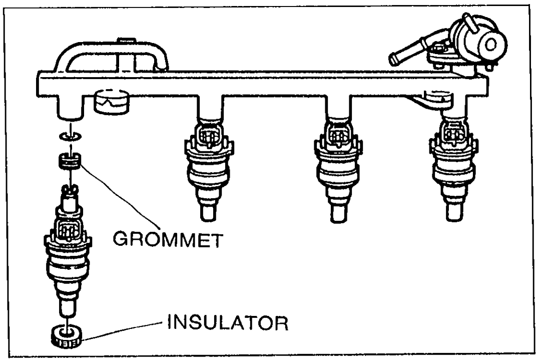
Warning

- **Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F–101.)**
- **When servicing the fuel system parts, keep sparks, cigarettes, and open flames away from the fuel.**



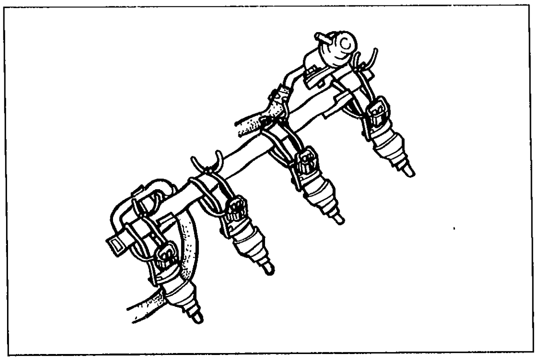
05U0FX-172

1. Disconnect the negative battery terminal.
2. Remove the air valve. (Refer to page F–98.)
3. Remove the PCV hose.
4. Disconnect the vacuum hose.
5. Disconnect the injector connectors.



05U0FX-173

6. Remove the delivery pipe and the pressure regulator.
7. Remove the grommets, injectors, and insulators.

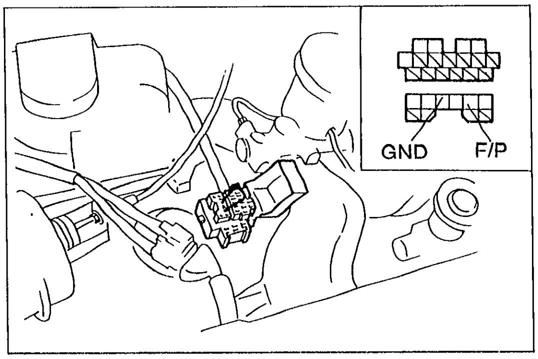


05U0FX-174

Inspection

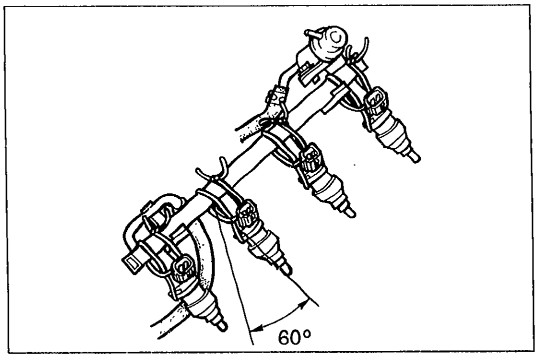
Fuel leakage test

1. Remove the air valve.
2. Firmly affix the injectors to the delivery pipe with wire.
3. Disconnect the injector connectors.
4. Remove the delivery pipe and injectors together with the fuel hoses connected.



05U0FX-175

5. Connect diagnosis connector terminals (F/P) and (GND) with a jumper wire.



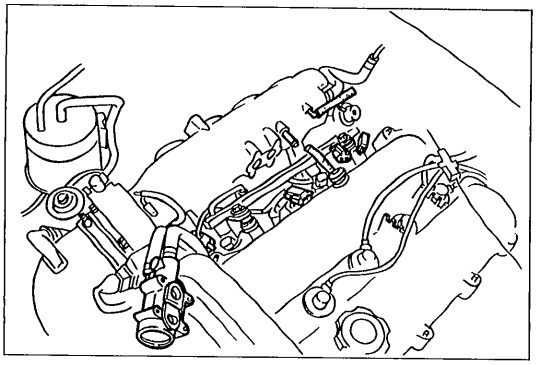
05U0FX-176

6. Turn the ignition switch ON.
7. Tilt the injectors **approx. 60 degrees** and verify that no fuel leaks from the injector nozzles.
8. If fuel leaks from an injector, replace it.

Note

- **After 1 minute a drop of fuel from the injector is acceptable.**

9. Turn the ignition switch OFF and remove the jumper wire.

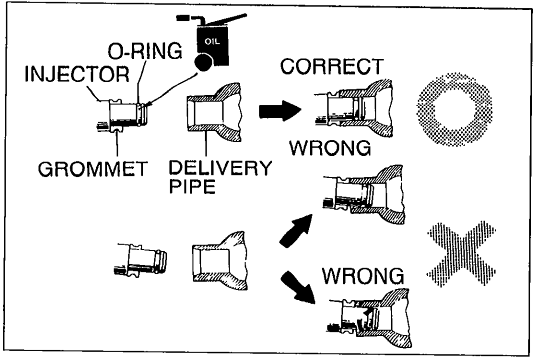


9MU0F2-172

Installation

Install in the reverse order of removal, referring to **Installation Note**.

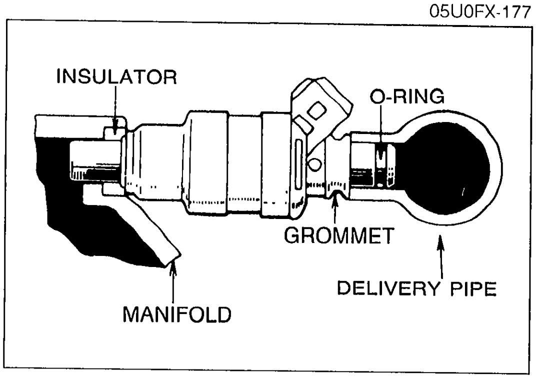
Tightening torque:
Delivery pipe
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)


O-RING
INJECTOR
OIL
CORRECT
GROMMET
DELIVERY PIPE
WRONG
WRONG

05U0FX-177

Installation note

1. Use new injector O-rings.
2. Apply a small amount of clean engine oil to the O-rings before installing.


INSULATOR
O-RING
GROMMET
DELIVERY PIPE
MANIFOLD

05U0FX-238

3. Use new injector insulators.
4. Install the injectors and new injector insulators.

EXHAUST SYSTEM

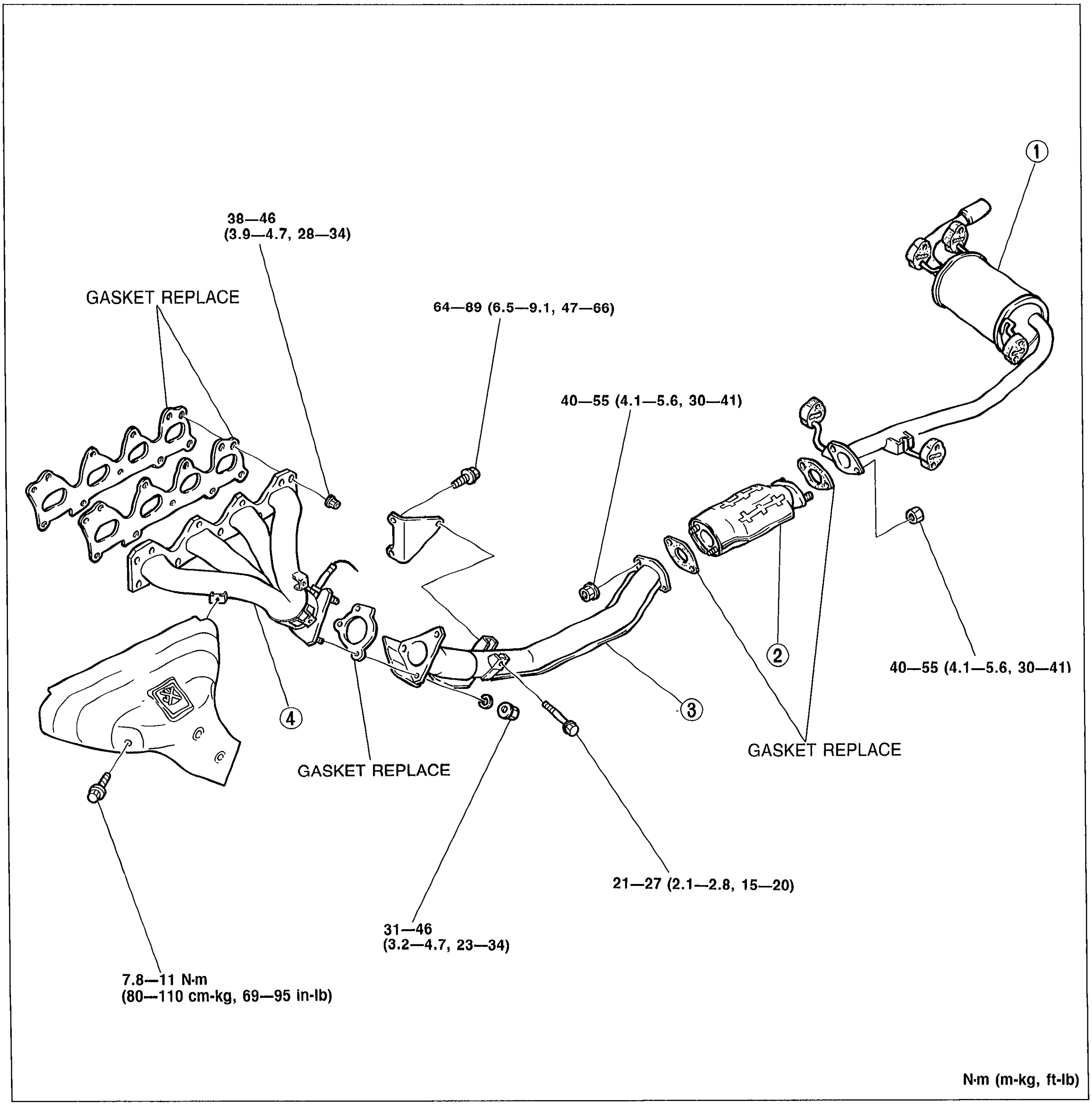
COMPONENTS

Removal / Inspection / Installation

1. Remove in the sequence shown in the figure.
2. Check all components for damage, deterioration, and restriction and repair or replace as necessary.
3. Install in the reverse order of removal.

Note

- **When installing the exhaust system components, tighten all fasteners to the specified torque.**


①
38—46
(3.9—4.7, 28—34)
GASKET REPLACE
64—89 (6.5—9.1, 47—66)
40—55 (4.1—5.6, 30—41)
②
40—55 (4.1—5.6, 30—41)
③
GASKET REPLACE
④
GASKET REPLACE
21—27 (2.1—2.8, 15—20)
31—46
(3.2—4.7, 23—34)
7.8—11 N·m
(80—110 cm-kg, 69—95 in-lb)
N·m (m-kg, ft-lb)

05U0FX-178

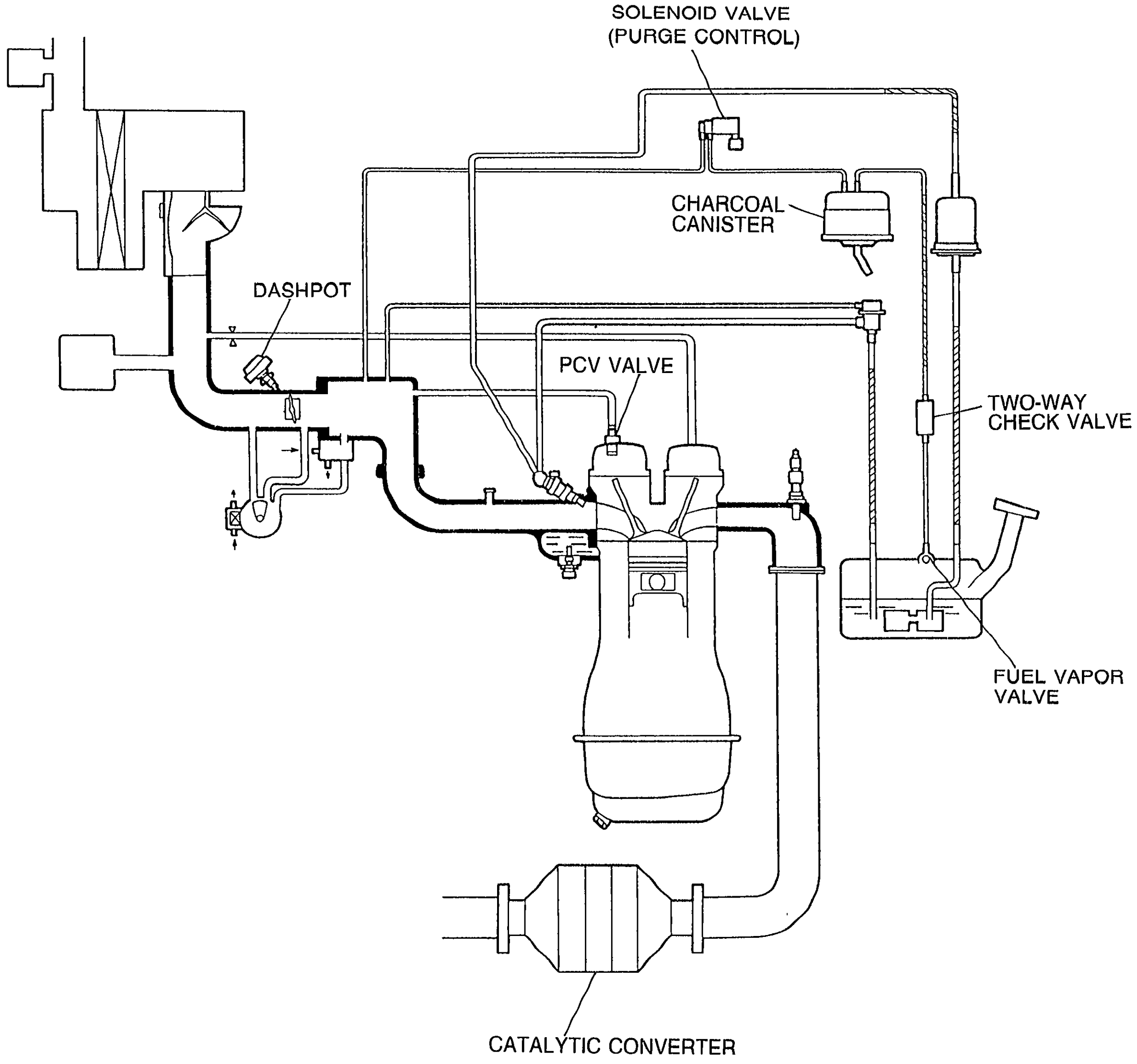
1. Main silencer
   Inspect for deterioration and restriction
2. Catalytic converter
   Inspect .... page F–122
3. Front exhaust pipe
   Inspect for deterioration and restriction
4. Exhaust manifold
   Inspect for damage

OUTLINE OF EMISSION CONTROL SYSTEM

STRUCTURAL VIEW

The following systems are employed to reduce CO, HC, and NOx emissions.

1. Positive crankcase ventilation (PCV) system.
2. Evaporative emission control system.
3. Catalytic converter.
4. Deceleration control system.

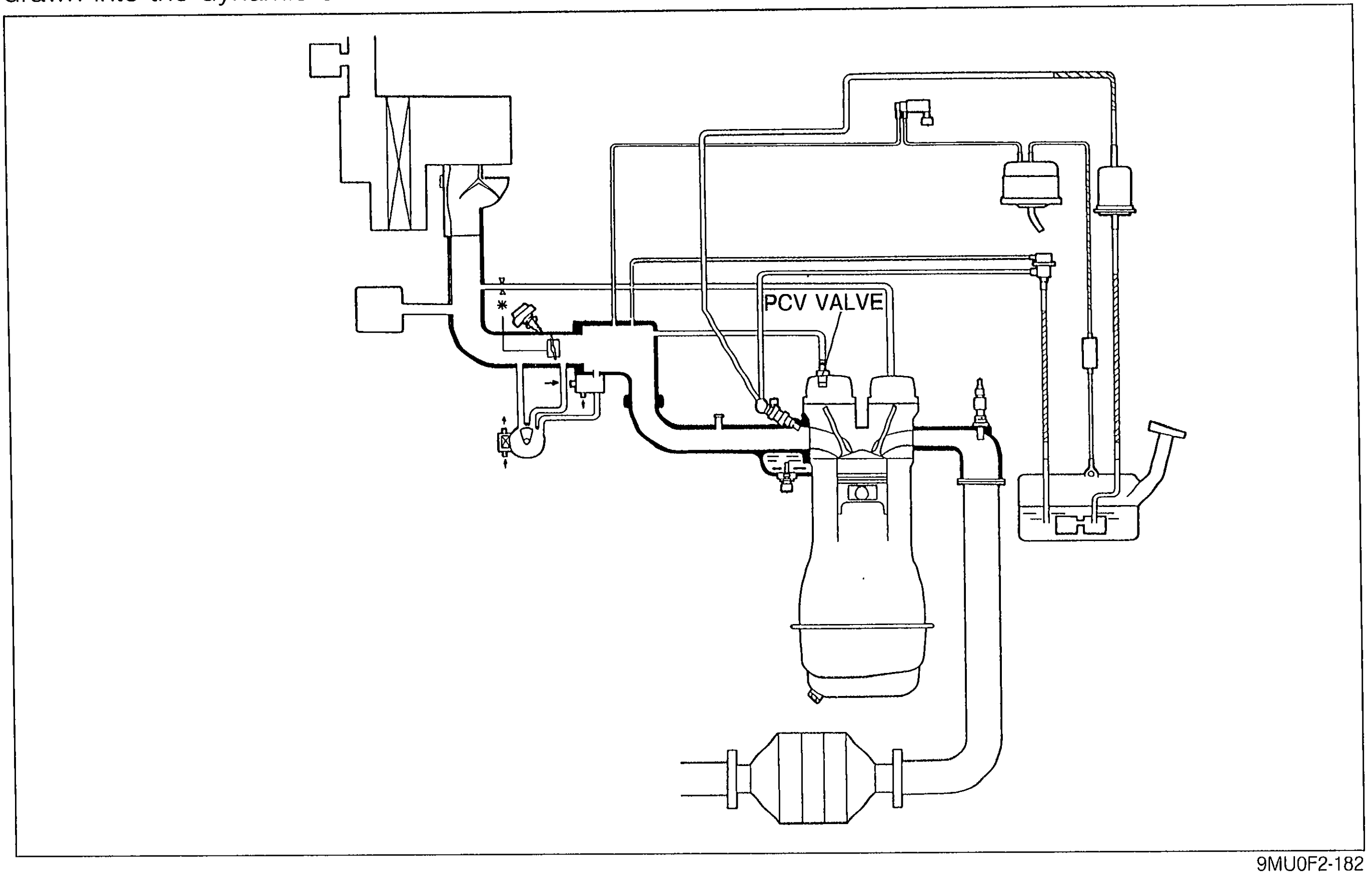

SOLENOID VALVE (PURGE CONTROL)
CHARCOAL CANISTER
DASHPOT
PCV VALVE
TWO-WAY CHECK VALVE
FUEL VAPOR VALVE
CATALYTIC CONVERTER

05U0FX-179

POSITIVE CRANKCASE VENTILATION (PCV) SYSTEM

DESCRIPTION

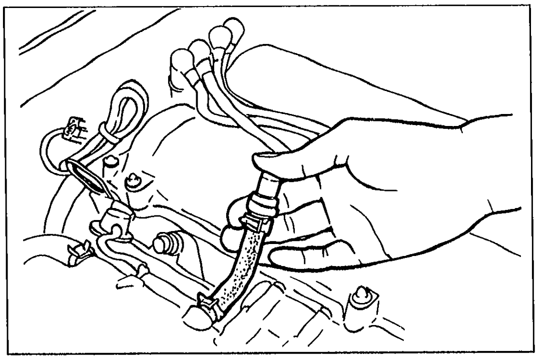
The PCV valve is operated by the intake manifold vacuum.
When the engine is running at idle the PCV valve is opened slightly and a small amount of blowby gas is drawn into the dynamic chamber to be burned.
At higher engine speeds the PCV valve is opened further, allowing a larger amount of blowby gas to be drawn into the dynamic chamber.



9MU0F2-182

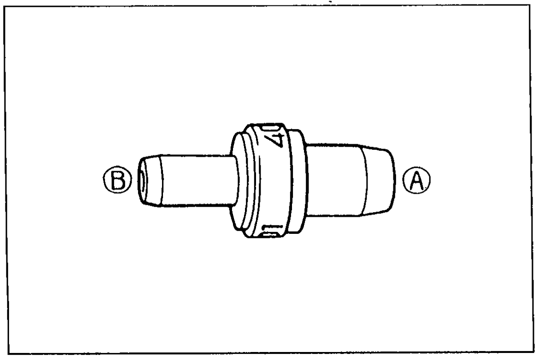
PCV VALVE

Inspection



05U0FX-180

1. Warm up the engine to the normal operating temperature and run it at idle.
2. Disconnect the PCV valve together with the ventilation hose from the cylinder head cover.
3. Block the PCV valve opening.
4. Verify that vacuum is felt.



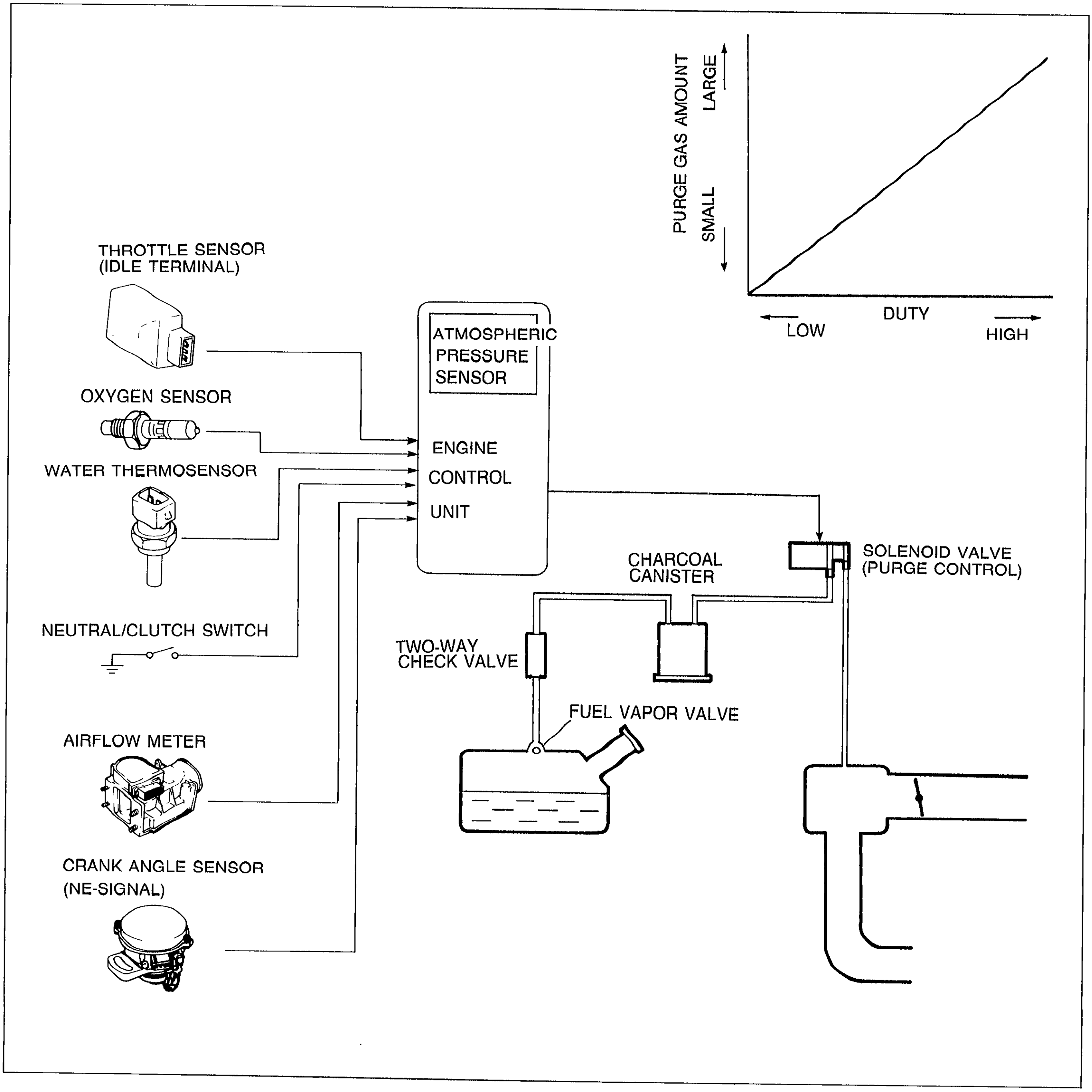
05U0FX-181

5. Remove the PCV valve.
6. Blow through the valve from port A and verify that air comes out of port B.
7. Blow through the valve from port B and verify that no air comes out of port A.
8. Replace the PCV valve if necessary.

EVAPORATIVE EMISSION CONTROL SYSTEM

DESCRIPTION

The evaporative emission control system consists of the fuel vapor valve, the two-way check valve, the charcoal canister, the solenoid valve (purge control), the engine control unit, and the input devices. The amount of evaporative fumes introduced into the engine and burned is controlled by the solenoid valve in relation to the engine's operating conditions. To maintain the best engine performance, the solenoid valve is controlled by the engine control unit.

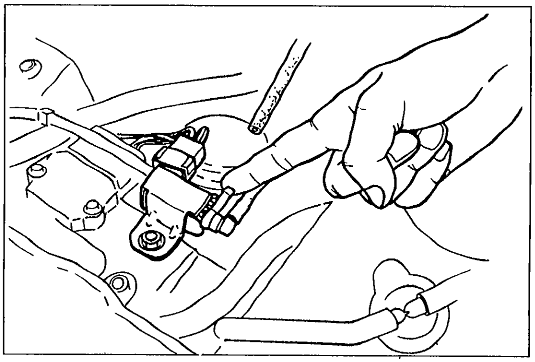

PURGE GAS AMOUNT
SMALL
LARGE
DUTY
LOW
HIGH
THROTTLE SENSOR (IDLE TERMINAL)
OXYGEN SENSOR
WATER THERMOSENSOR
NEUTRAL/CLUTCH SWITCH
AIRFLOW METER
CRANK ANGLE SENSOR (NE-SIGNAL)
ATMOSPHERIC PRESSURE SENSOR
ENGINE CONTROL UNIT
CHARCOAL CANISTER
SOLENOID VALVE (PURGE CONTROL)
TWO-WAY CHECK VALVE
FUEL VAPOR VALVE

05U0FX-182

Operation

The solenoid valve (purge control) is controlled by duty signals from the engine control unit to perform purging of the charcoal canister. Purging is done when these conditions are met:

(1) After warm-up.
(2) Driving in gear.
(3) Accelerator pedal depressed (idle switch OFF).
(4) Oxygen sensor functioning normally.

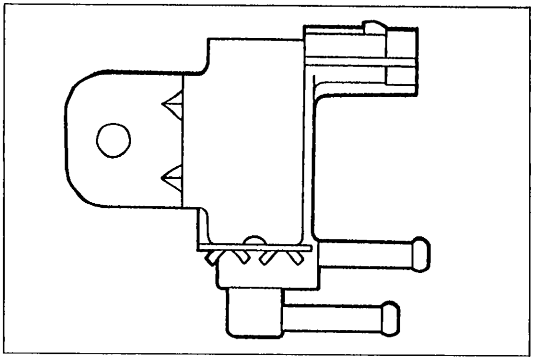


05U0FX-183

SOLENOID VALVE (PURGE CONTROL)

On-vehicle Inspection

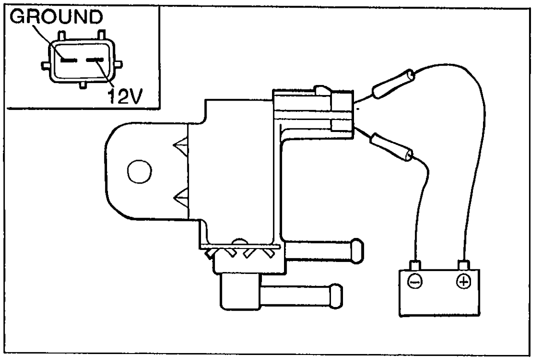
1. Warm up the engine to normal operating temperature.
2. Run the engine at idle.
3. Disconnect the vacuum hose from the solenoid valve and verify that no vacuum is felt at the solenoid valve.
4. If not as specified, check the solenoid valve.



05U0FX-184

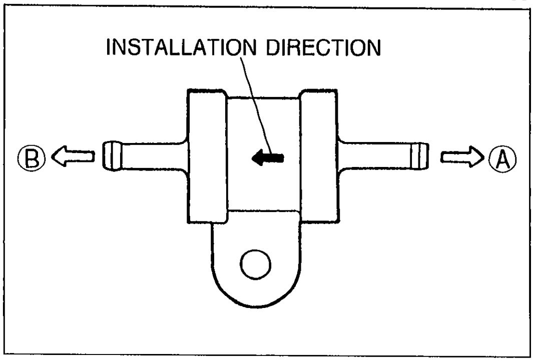
Inspection

1. Disconnect the vacuum hoses from the solenoid valve.
2. Verify that no air flows through the valve.



05U0FX-185

3. Disconnect the solenoid valve connector and connect **12V** and a ground to the terminals of the solenoid valve.
4. Verify that the air flows through the valve.
5. If not as specified, replace the solenoid valve.



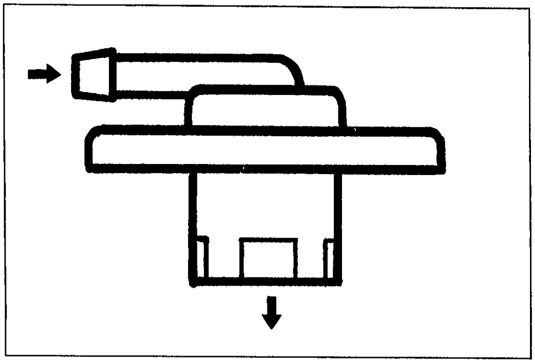
05U0FX-186

TWO-WAY CHECK VALVE

Inspection

1. Remove the valve.
2. Check the operation of the valve with a vacuum pump.

Apply approx. 37 mmHg (1.46 inHg) vacuum at port A	Airflow
Apply approx. 44 mmHg (1.73 inHg) vacuum at port B	Airflow

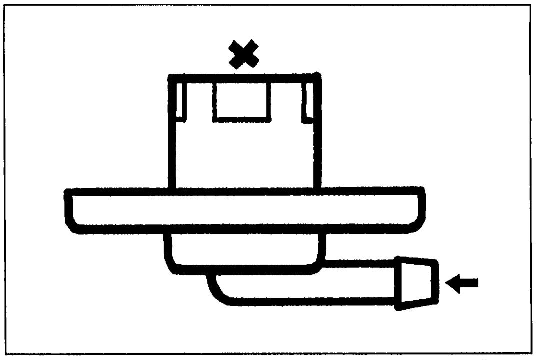


05U0FX-187

FUEL VAPOR VALVE

Inspection

1. Remove the valve.
2. Blow through the valve and verify that air flows in the direction shown.



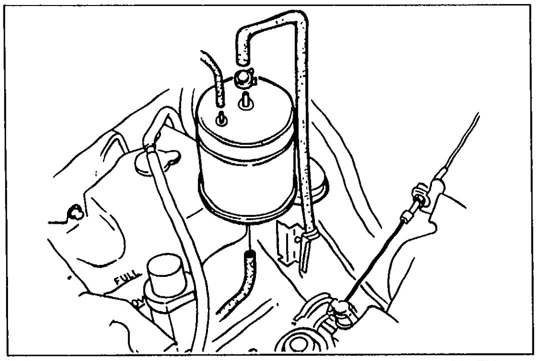
05U0FX-188

3. Turn the valve over and blow through the valve. Verify that no air flows.
4. Replace the valve if necessary.

CHARCOAL CANISTER

Inspection

Visually check for damage and replace the charcoal canister if necessary.



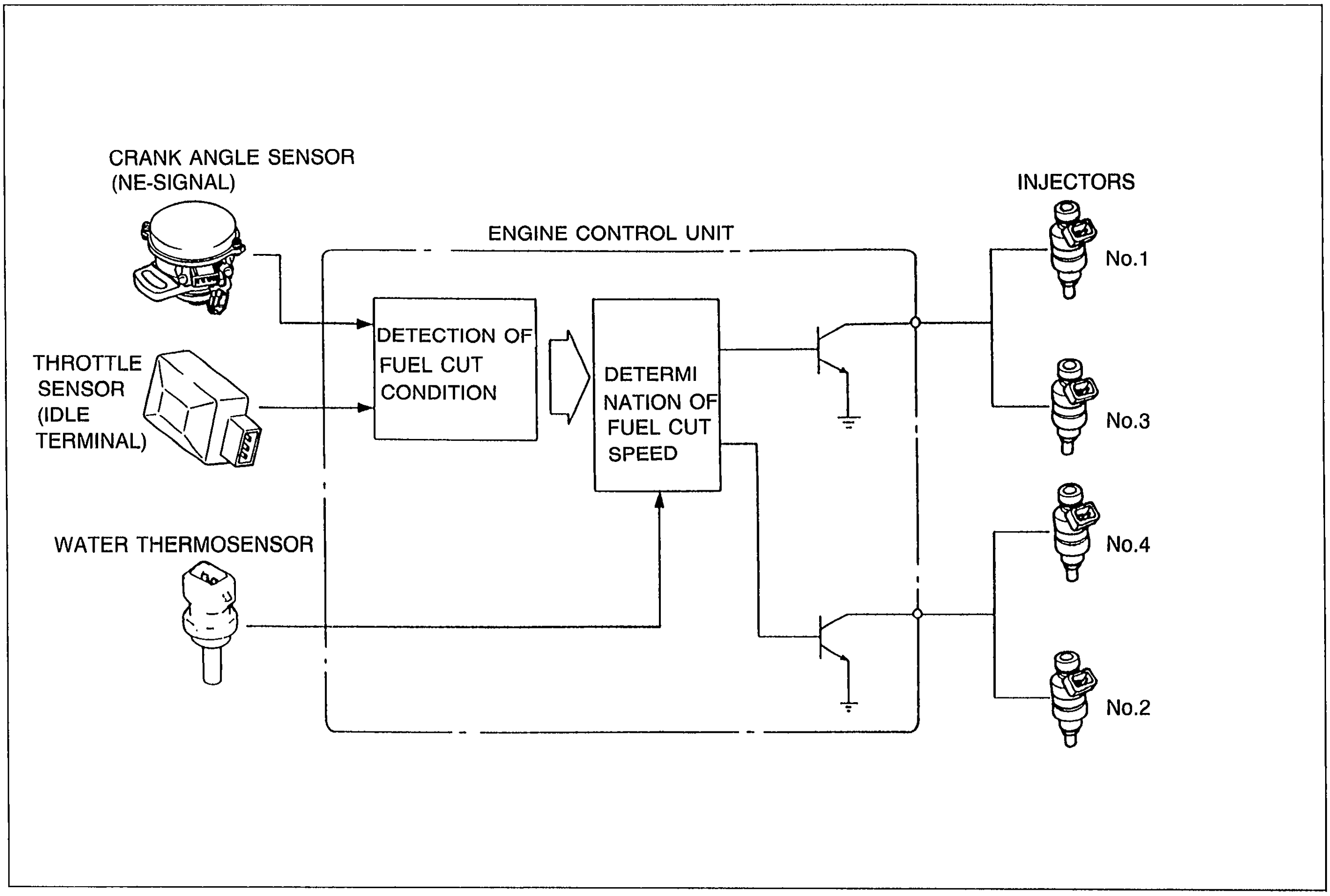
05U0FX-189

DECELERATION CONTROL SYSTEM

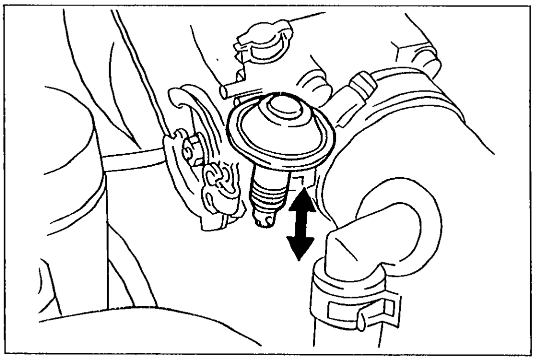
DESCRIPTION

The deceleration control system consists of the fuel cut operation and the dashpot.

1. Dashpot: To prevent the throttle valves from suddenly closing.
2. Fuel cut: To improve the fuel economy and to prevent engine bucking during deceleration.


CRANK ANGLE SENSOR (NE-SIGNAL)
THROTTLE SENSOR (IDLE TERMINAL)
WATER THERMOSENSOR
ENGINE CONTROL UNIT
DETECTION OF FUEL CUT CONDITION
DETERMI NATION OF FUEL CUT SPEED
INJECTORS
No.1
No.3
No.4
No.2

05U0FX-239

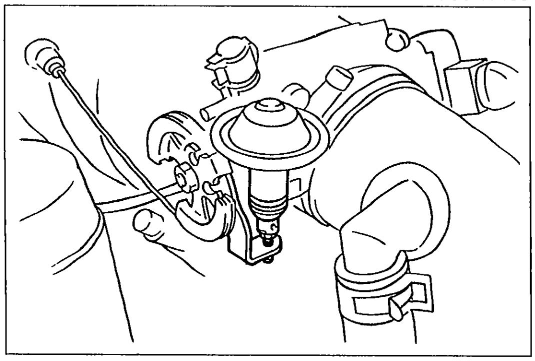


05U0FX-190

DASHPOT

Inspection

1. Open the throttle valve fully. Push the dashpot rod with a finger and verify that it goes into the dashpot slowly.
2. Release the rod and check that it comes out quickly.
3. Replace the dashpot if necessary.



05U0FX-191

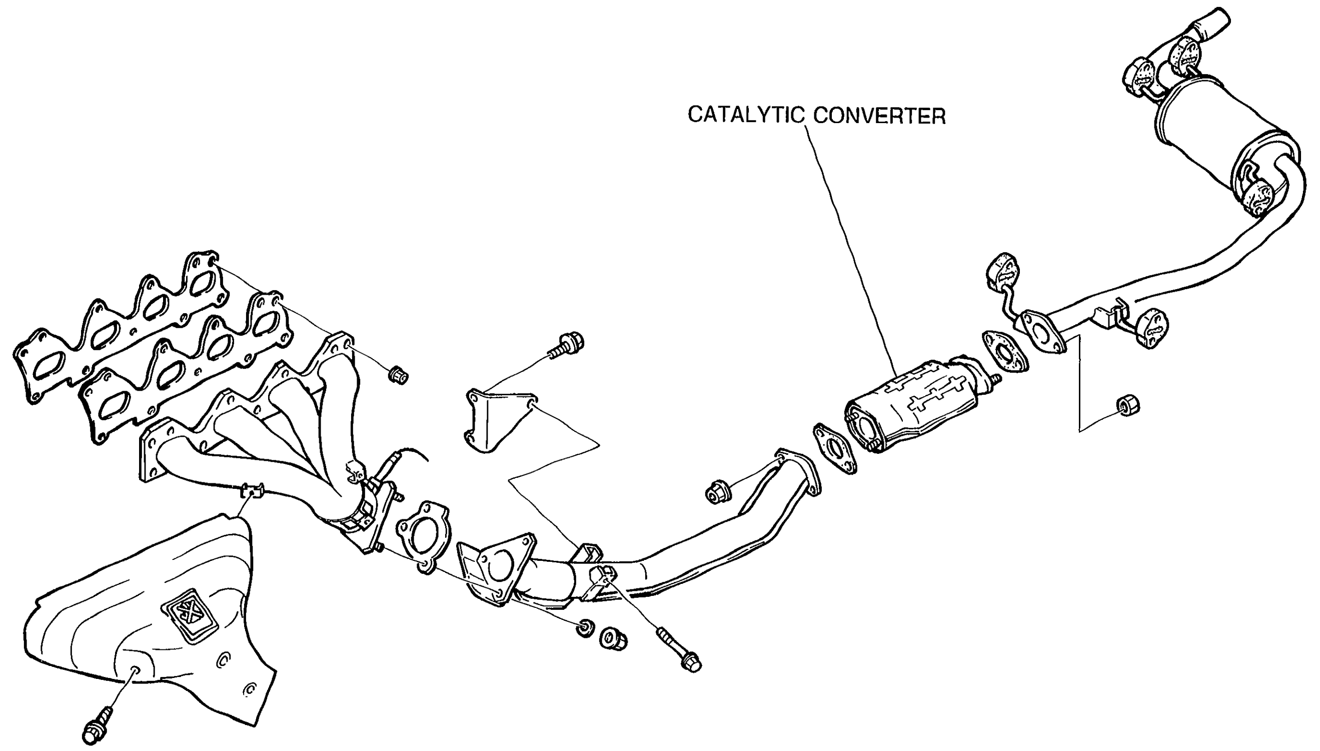
4. Warm up the engine and run it at idle.
5. Connect a tachometer to the engine, and increase the engine speed to **4,000 rpm**.
6. Slowly decrease the engine speed and check that the lever touches the dashpot rod as specified.

Specification: 2,500 ± 150 rpm

7. If not as specified, loosen the locknut and turn the dashpot to adjust.

CATALYTIC CONVERTER SYSTEM

DESCRIPTION



05U0FX-192

CATALYTIC CONVERTER

Inspection

Check the catalytic converter for deterioration or restriction. Check for damage to the insulation covers welded to the catalytic converter. Replace the catalytic converter if necessary.

Note

- **If the insulation cover touches the catalytic converter housing, excessive heat at the floor of the vehicle will occur.**

Replacement

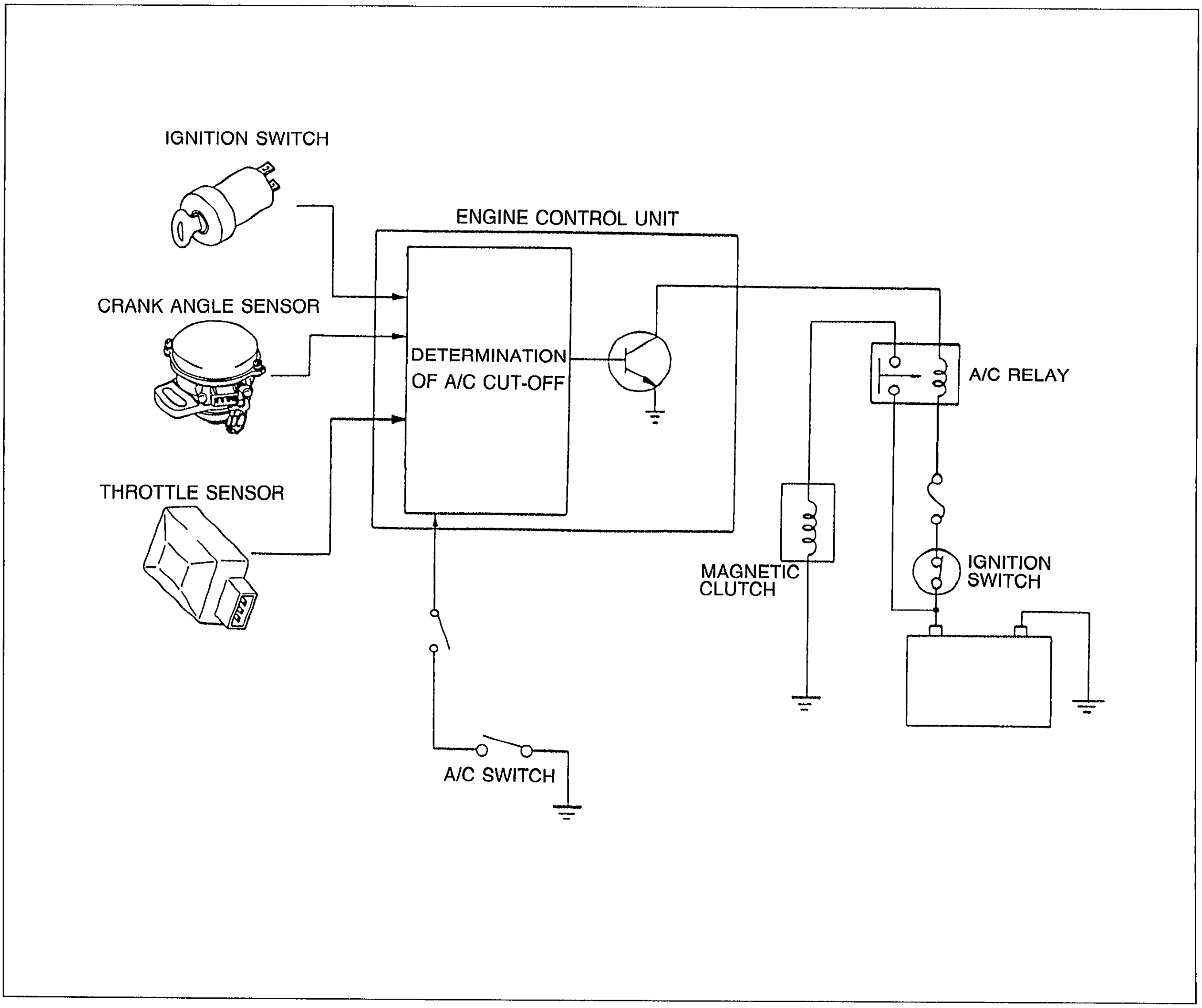
Refer to page F–115.

05U0FX-193

A/C CUT-OFF CONTROL SYSTEM

DESCRIPTION

An A/C cut-off system is used to improve idle smoothness after just starting the engine and to improve acceleration performance.


IGNITION SWITCH
CRANK ANGLE SENSOR
THROTTLE SENSOR
ENGINE CONTROL UNIT
DETERMINATION OF A/C CUT-OFF
A/C RELAY
MAGNETIC CLUTCH
IGNITION SWITCH
A/C SWITCH

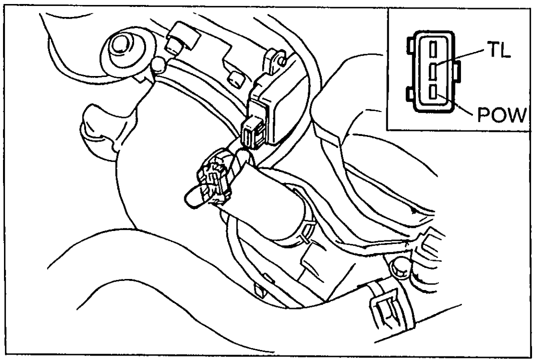
05U0FX-194

After Engine Has Been Started

The A/C is cut-off for **2 sec.** just after the engine is started.

Acceleration

The A/C is cut-off upon wide-open-throttle acceleration for **approx. 16 sec.**.



05U0FX-195

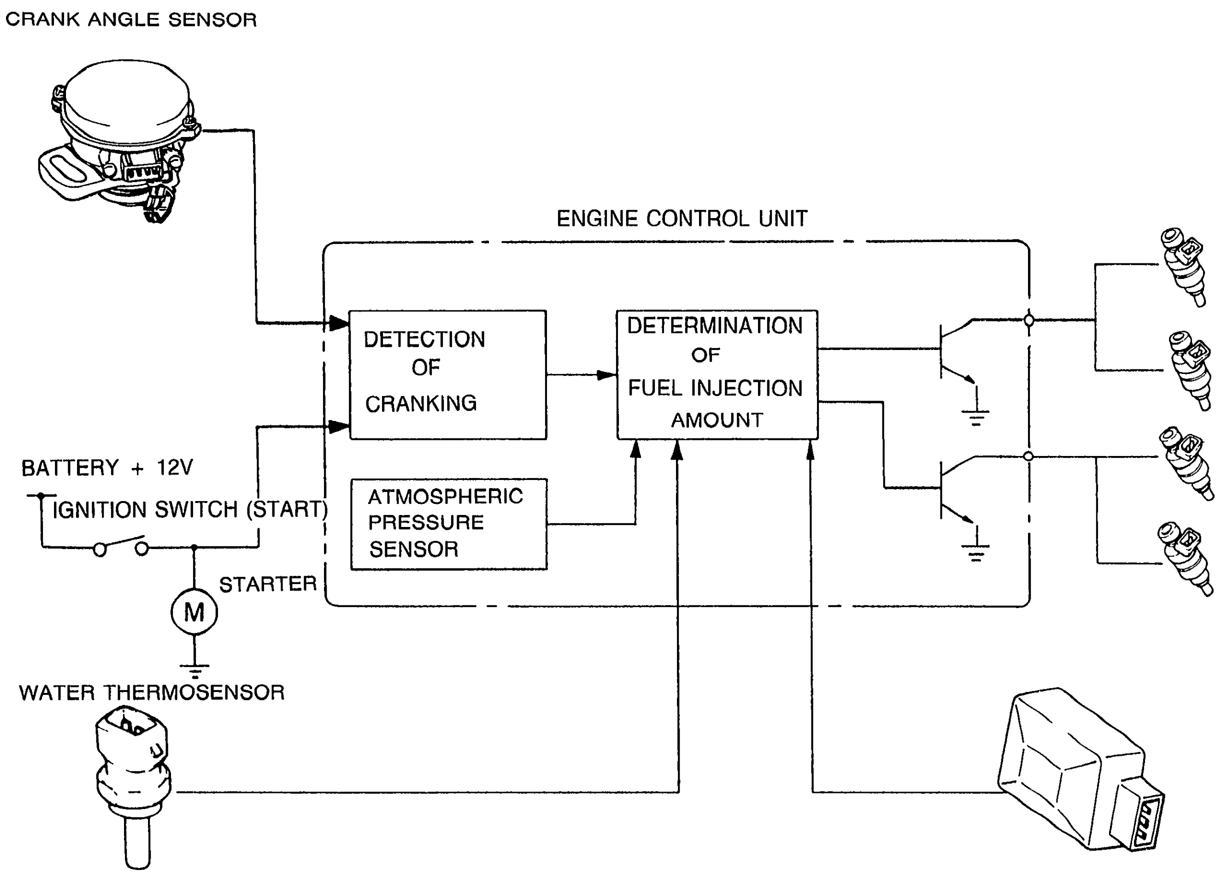
System Operation

1. Start the engine.
2. Turn the blower switch and A/C switch ON.
3. Disconnect the throttle sensor connector.
4. Connect the throttle sensor connector terminals TL and POW with a jumper wire and verify that the condenser fan stops for **approx. 16 sec.**.
5. If not correct, check engine control unit terminals 1Q and 2L voltages. (Refer to page F–129.)

DECHOKE CONTROL SYSTEM

DESCRIPTION

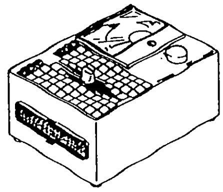
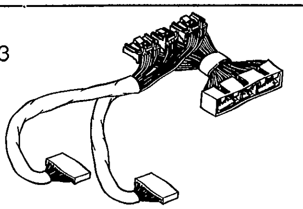
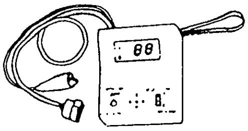
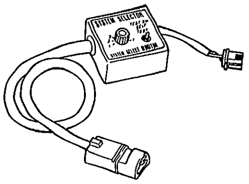
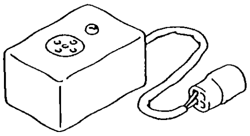
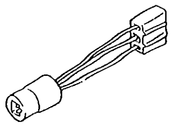
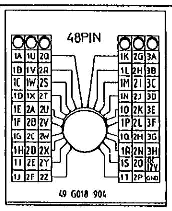
To clean out excess fuel in cylinders, as in the case of engine flooding, when the engine is cold, no fuel will be injected when the accelerator is held fully depressed while cranking the engine.


CRANK ANGLE SENSOR
ENGINE CONTROL UNIT
DETECTION OF CRANKING
DETERMINATION OF FUEL INJECTION AMOUNT
ATMOSPHERIC PRESSURE SENSOR
BATTERY + 12V
IGNITION SWITCH (START)
STARTER
M
WATER THERMOSENSOR

05U0FX-196

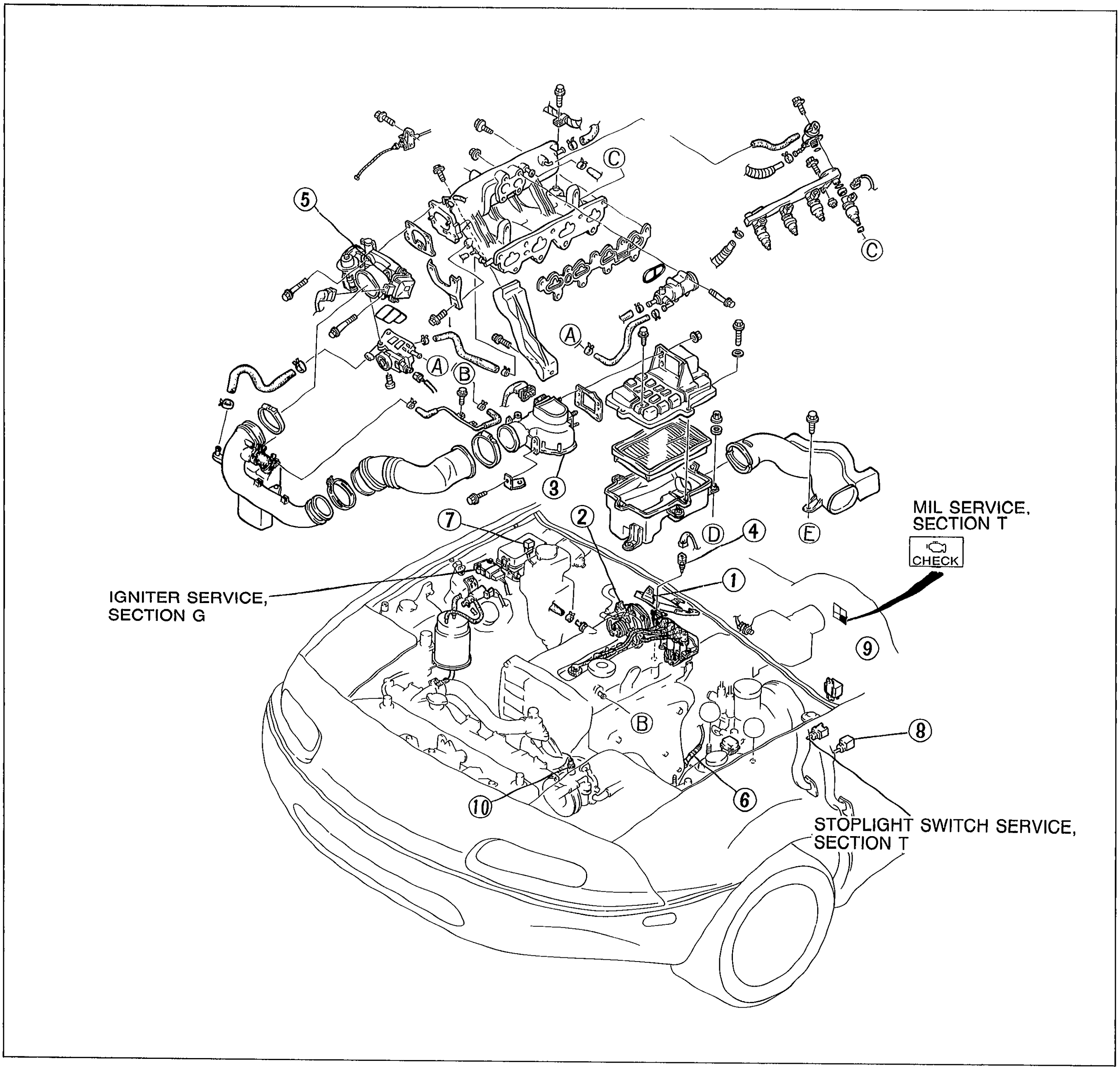
CONTROL SYSTEM

PREPARATION
SST

49 9200 162 Engine Signal Monitor 	For inspection of engine control unit	49 G018 903 Adapter harness 	For inspection of engine control unit
49 H018 9A1 Self-Diagnosis Checker 	For inspection of oxygen sensor	49 B019 9A0 System Selector 	For inspection of oxygen sensor
49 9200 165 Throttle Sensor Checker 	For inspection of oxygen sensor	49 9200 166 Adapter harness 	For inspection of oxygen sensor
49 G018 904 Sheet 	For inspection of engine control unit		

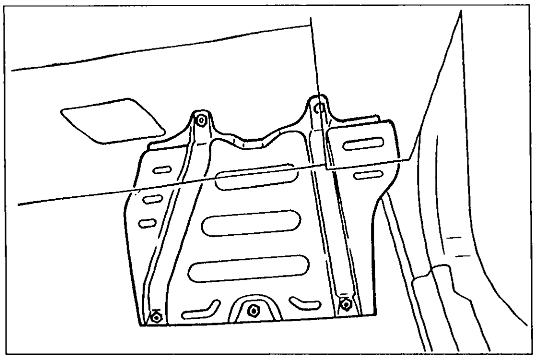
05U0FX-197

STRUCTURAL VIEW


⑤
Ⓒ
Ⓒ
Ⓐ
Ⓐ
Ⓑ
③
⑦
②
Ⓓ
④
Ⓔ
MIL SERVICE,
SECTION T
CHECK
IGNITER SERVICE,
SECTION G
①
⑨
Ⓑ
⑧
⑥
⑩
STOPLIGHT SWITCH SERVICE,
SECTION T

05U0FX-198

1. Engine control unit
    - Inspection .... page F–127
2. Crank angle sensor
    - Removal.................................. page F–134
    - Inspection .... page F–134
    - Installation .... page F–134
3. Airflow meter
    - Inspection .... page F–135
4. Water thermosensor
    - Removal.................................. page F–136
    - Inspection .... page F–136
    - Installation .... page F–136
5. Throttle sensor
    - Inspection .... page F–136
    - Adjustment............................... page F–137
    - Replacement............................ page F–137
6. Oxygen sensor
    - Inspection .... page F–138
    - Replacement............................ page F–139
7. Main relay (Fuel injector relay)
    - Inspection .... page F–139
8. Clutch switch
    - Inspection .... page F–139
    - Replacement............................ page F–139
9. Neutral switch
    - Inspection .... page F–140
    - Replacement............................ page F–140
10. Power steering pressure switch
    - Inspection .... page F–140
    - Replacement............................ page F–140

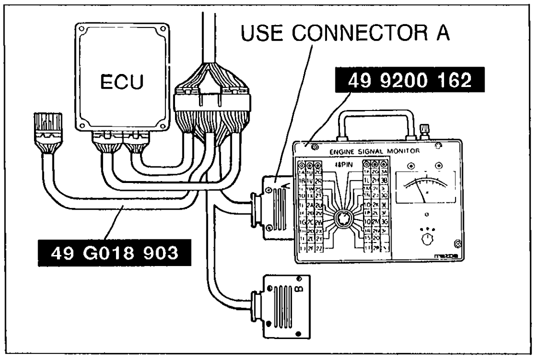


9MU0F2-207

ENGINE CONTROL UNIT

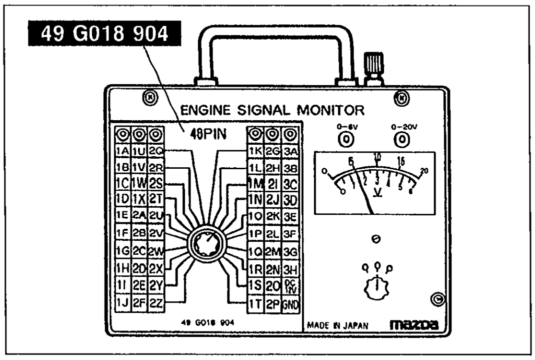
Inspection

1. Lift up the floormat in front of the passenger's seat.
2. Remove the protector cover.


USE CONNECTOR A
ECU
49 9200 162
49 G018 903
ENGINE SIGNAL MONITOR

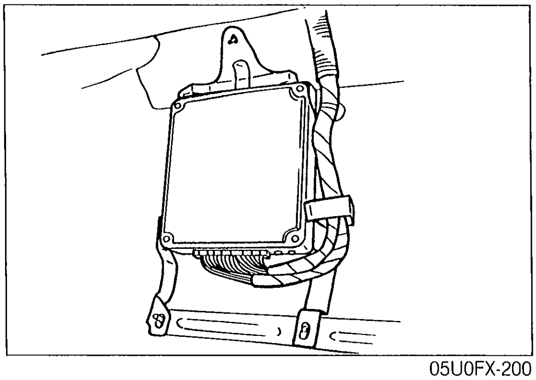
05U0FX-199

3. Connect the **Engine Signal Monitor** between the engine control unit and the wiring harness using the **Adapter** as shown.


49 G018 904
ENGINE SIGNAL MONITOR
48PIN
0–8V
0–20V
MADE IN JAPAN
mazda

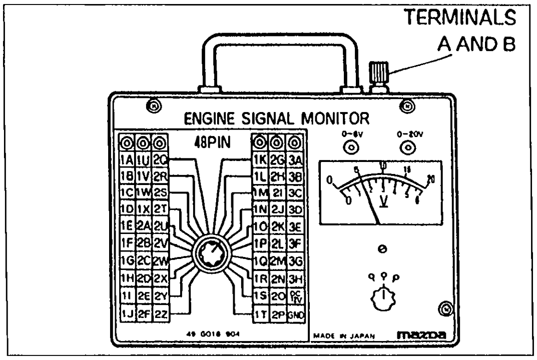
05U0FX-234

4. Place the **SST (Sheet)** on the **SST**.
5. Measure the voltage at each terminal. (Refer to pages F–128 to F–130.)



05U0FX-200

5. If any engine control unit terminal voltage is incorrect, check the input or output device and related wiring. If they are normal, replace the engine control unit. (Refer to pages F–131 to F–133.)


TERMINALS A AND B
ENGINE SIGNAL MONITOR
48PIN
0–8V
0–20V
MADE IN JAPAN
mazda

9MU0F2-191

Caution

- **Never apply voltage to SST terminals A and B.**

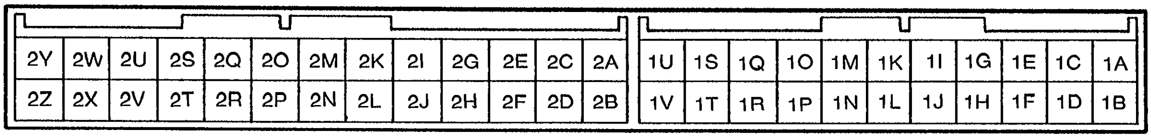
Terminal	Input	Output	Connection to	Test condition	Voltage	Remark
1A	—	—	Battery	Constant	Approx. 12V	For backup
1B	○		Main relay	Ignition switch OFF	Approx. 0V	
				Ignition switch ON	Approx. 12V	
1C	○		Ignition switch (Start position)	While cranking	Approx. 10V	
				Ignition switch ON	Approx. 0V	
1D		○	Self-Diagnosis Checker (Monitor lamp)	Test switch at "SELF-TEST" Lamp illuminated for 3 sec. after ignition switch OFF→ON	Approx. 5V	With Self-Diagnosis Checker and System Selector
				Lamp not illuminated after 3 sec.	Approx. 12V	
				Test switch at "O_2 MONITOR" at idle Monitor lamp illuminated	Approx. 5V	
				Test switch at "O_2 MONITOR" at idle Monitor lamp not illuminated	Approx. 12V	
1E		○	Malfunction indicator lamp	Lamp illuminated for 3 sec. after ignition switch OFF→ON	Below 2.5V	With System Selector test switch at "SELF-TEST"
				Lamp not illuminated after 3 sec.	Approx. 12V	
				Lamp illuminated	Below 2.5V	
				Lamp not illuminated	Approx. 12V	
1F		○	Self-Diagnosis Checker (Code number)	Buzzer sound for 3 sec. after ignition switch OFF→ON	Below 2.5V	• With Self-Diagnosis Checker and System Selector • With System Selector test switch at "SELF-TEST"
				Buzzer not sounded after 3 sec.	Approx. 12V	
				Buzzer sounded	Below 2.5V	
				Buzzer not sounded	Approx. 12V	
1G		○	Igniter	Ignition switch ON	Approx. 0V	
				Idle	Approx. 0.2V	
1H		○	Igniter	Ignition switch ON	Approx. 0V	
				Idle	Approx. 0.2V	
1I	—	—	—	—	—	—
1J		○	A/C relay	Ignition switch ON	Approx. 12V	
				A/C switch ON at idle	Below 2.5V	
				A/C switch OFF at idle	Approx. 12V	
1K	○		Diagnosis connector	System Selector test switch at "O_2 MONITOR"	Approx. 12V	
				System Selector test switch at "SELF-TEST"	Approx. 0V	
1L	—	—	—	—	—	—
1M	—	—	—	—	—	—
1N	○		Throttle sensor (Idle point)	Accelerator pedal released	Approx. 0V	Ignition switch ON
				Accelerator pedal depressed	Approx. 12V	
1O	○		Stoplight switch	Brake pedal released	0V	
				Brake pedal depressed	Approx. 12V	
1P	○		P/S pressure switch	Ignition switch ON	Approx. 12V	
				P/S ON (at idle)	0V	
				P/S OFF (at idle)	Approx. 12V	
1Q	○		A/C switch	A/C switch ON (Ignition switch ON)	Below 2.5V	Blower motor ON
				A/C switch OFF (Ignition switch ON)	Approx. 12V	

Terminal	Input	Output	Connection to	Test condition	Voltage	Remark
1R	○		Fan switch	Fan operating (Engine coolant temperature over 97°C (207°F) or diagnosis connector terminal TFA grounded)	Approx. 0V	
				Fan not operating (Idle)	Approx. 12V	
1S	○		Blower control switch	Blower control switch at mid, high or super high position	Approx. 0V	Ignition switch ON
				Blower control switch OFF or low	Approx. 12V	
1T	—	—	—	—	—	
1U	○		Headlight switch	Headlights ON (Tail, parking, low beam/ high beam)	Approx. 12V	
				Headlights OFF	0V	
1V	○		Neutral or clutch switch	Neutral position or clutch pedal depressed	Approx. 0V	
				Other conditions	Approx. 12V	
2A	—	—	Ground (Injector)	Constant	0V	
2B	—	—	Ground (Output)	Constant	0V	
2C	—	—	Ground (CPU)	Constant	0V	
2D	—	—	Ground (Input)	Constant	0V	
2E	○		Crank angle sensor (Ne-signal)	Ignition switch ON	Approx. 0V or 5V	
				Idle	Approx. 2V	
2F	—	—	—	—	—	—
2G	○		Crank angle sensor (G-sgnal)	Ignition switch ON	Approx. 0V or 5V	
				Idle	Approx. 1.5V	
2H	○		Ground	California spec.	0V	
			Open	Federal and Canada spec.	Approx. 2V	
2I	○		Igniter	Ignition switch ON	Below 0.5V	
				Idle	Approx. 1V	
2J	○		Ground	Constant	0V	
2K		○	Airflow meter	Constant	4.5—5.5V	
2L	○		Throttle sensor (Power terminal)	Accelerator pedal released	Approx. 5V	
				Accelerator pedal fully depressed	Approx. 0V	
2M	—	—	—	—	—	—
2N	○		Oxygen sensor	Ignition switch ON	0V	
				Idle (Cold engine)	0V	
				Idle (After warm-up)	0—1V	
				Increase engine speed (After warm-up)	0.5—1V	
				Deceleration	0—0.4V	
2O	○		Airflow meter	Ignition switch ON	Approx. 3.8V	
				Idle	Approx. 3.3V	
2P	○		Airflow sensor (Intake air thermosensor)	At 20°C (68°F)	Approx. 2.5V	
2Q	○		Water thermosensor	Engine coolant temperature 20°C (68°F)	Approx. 2.5V	
				After warm up	Approx. 0.4V	
2R	—	—	—	—	—	—

Terminal	Input	Output	Connection to	Test condition	Voltage	Remark
2S	—	—	—	—	—	—
2T	—	—	—	—	—	—
2U		○	Injector (Nos.1, 3) (Nos.2, 4)	Ignition switch ON	Approx. 12V	* Engine Signal Monitor: Green and red lights flash
				Idle	Approx. 12V*	
2V		○		Deceleration from 3,000 rpm to 1,900 rpm (After warm up)	Approx. 12V	
2W		○	ISC valve	Ignition switch ON	Approx. 7V	
				Idle	Approx. 9V	
2X		○	Solenoid valve (Purge control)	Ignition switch ON	Approx. 12V	
				Idle	Approx. 12V	
2Y	—	—	—	—	—	—
2Z	—	—	—	—	—	—

05U0FX-201

Terminal location



2Y	2W	2U	2S	2Q	2O	2M	2K	2I	2G	2E	2C	2A	1U	1S	1Q	1O	1M	1K	1I	1G	1E	1C	1A
2Z	2X	2V	2T	2R	2P	2N	2L	2J	2H	2F	2D	2B	1V	1T	1R	1P	1N	1L	1J	1H	1F	1D	1B

Check Point for Each Terminal

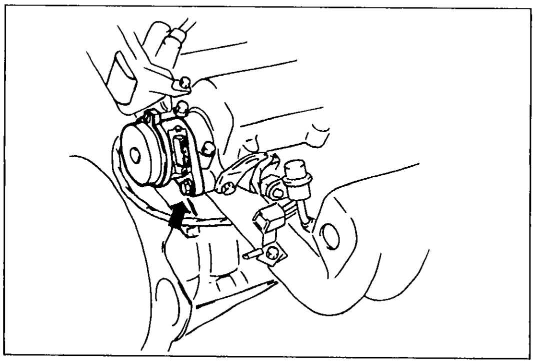
Terminal	Connection to	Abnormal voltage	Possible cause
1A	Battery	Always approx. 0V (Battery OK)	• ROOM 10A fuse burned • Open circuit in wiring from ROOM 10A fuse to ECU terminal 1A
1B	Main relay	Always approx. 0V	• Main relay malfunction (Refer to page F–139) • Open circuit in wiring from main relay to ECU terminal 1B
1C	Ignition switch (Start position)	Always approx. 0V (Starter turns)	• Open circuit in wiring from starter interlock switch to ECU terminal 1C
1D	Self-Diagnosis Checker (Monitor lamp)	Always approx. 0V	• Main relay malfunction (Refer to page F–139) • Open circuit in wiring from main relay to diagnosis connector terminal +B • Open or short circuit in wiring from diagnosis connector terminal MEN to ECU terminal 1D
		Always approx. 12V	• Poor connection at ECU connector • ECU malfunction
		Always approx. 5V	• ECU malfunction
1E	Malfunction indicator lamp (MIL)	Always below 2.5V (MIL always ON)	• Short circuit in wiring from combination meter to ECU terminal 1E • ECU malfunction
		Always below 2.5V (MIL never ON)	• Open circuit in wiring from combination meter to ECU terminal 1E
		Always approx. 12V	• Poor connection at ECU connector • ECU malfunction
1F	Self-Diagnosis Checker (Code No.)	Always below 2.5V (No display on Self-Diagnosis Checker)	• Main relay malfunction (Refer to page F–139) • Open circuit in wiring from main relay to diagnosis connector terminal +B
		Always below 2.5V ("88" is displayed and buzzer sounds continuously)	• Open or short circuit in wiring from diagnosis connector terminal FEN to ECU terminal 1F
		Always approx. 12V	• Poor connection at ECU connector • ECU malfunction
1G 1H	Igniter	Always approx. 0V	Refer to Code No.01 troubleshooting (Refer to page F–81)
1J	A/C relay	Always below 2.5V (A/C does not operate)	• A/C relay malfunction (Refer to page U–39) • Open circuit in wiring from main relay to A/C relay • Open circuit in wiring from A/C relay to ECU terminal 1J
		Always below 2.5V (A/C switch OFF but A/C operates)	• Short circuit in wiring from A/C relay to ECU terminal 1J • ECU malfuction
		Always approx. 12V	• A/C switch malfunction (Refer to page U–25) • Poor connection at ECU connector • ECU malfunction
1K	Diagnosis connector (Terminal TEN)	Always approx. 0V	• Short circuit in wiring from ECU terminal 1K to diagnosis connector terminal TEN
		Always approx. 12V	• Open circuit in wiring from ECU terminal 1K to diagnosis connector terminal TEN • Open circuit in wiring from diagnosis connector terminal GND to ground
1N	Throttle sensor (Idle terminal)	Always approx. 0V	• Throttle sensor misadjustment (Refer to page F–136) • Short circuit in wiring from ECU terminal 1N to throttle sensor • ECU malfunction
		Always approx. 12V	• Throttle sensor misadjustment (Refer to page F–136) • Open circuit in wiring from ECU terminal 1N to throttle sensor • Open circuit in wiring from throttle sensor to ground
1O	Stoplight switch	Always approx. 0V (Stoplights OK)	• Open circuit in wiring from stoplight switch to ECU terminal 1O

Terminal	Connection to	Abnormal voltage	Possible cause
1P	P/S pressure switch	Always approx. 0V	• P/S pressure switch malfunction (Refer to page F–140) • Short circuit in wiring from ECU terminal 1P to P/S pressure switch • ECU malfunction
		Always approx. 12V	• P/S pressure switch malfunction (Refer to page F–140) • Open circuit in wiring from ECU terminal 1P to P/S pressure switch • Open circuit in wiring from P/S pressure switch to ground
1Q	A/C switch	Always approx. 0V (with blower switch ON)	• A/C switch malfunction (Refer to page U–25) • Short circuit in wiring from ECU terminal 1Q to A/C switch • Poor connection at ECU connector • ECU malfunction
		Always approx. 12V (with blower switch ON) (Blower fan OK)	• A/C switch malfunction (Refer to page U–25) • Open circuit in wiring from ECU terminal 1Q to A/C switch • Open circuit in wiring from A/C switch to blower control switch
1R	Fan switch	Always approx. 0V (Cooling fan OK)	• Open or short circuit in wiring from electric cooling fan relay to ECU terminal 1R • ECU malfunction
1S	Blower control switch	Always approx. 0V (Blower fan OK)	• Short circuit in wiring from blower control switch to ECU terminal 1S • Poor connection at ECU connector • ECU malfunction
		Always approx. 12V (Blower fan OK)	• Open circuit in wiring from blower control switch to ECU terminal 1S
1U	Headlight switch	Always approx. 0V (Headlights OK)	• Open or short circuit in wiring from headlight relay to ECU terminal 1U
1V	Neutral switch Clutch switch	Always approx. 0V	• Neutral switch malfunction (Refer to page F–140) • Clutch switch malfunction (Refer to page F–139) • Short circuit in wiring from ECU terminal 1V to neutral or clutch switch • Poor connection at ECU connector • ECU malfunction • Open circuit in wiring from ECU terminal 1V to neutral and clutch switches
2A 2B 2C 2D	Ground	More than 0V	• Poor contact at ground terminal • Open circuit in wiring from ECU to ground
2E	Crank angle sensor (Ne-signal)	Always approx. 0V or approx. 5V	• Refer to Code No.02 troubleshooting (Refer to page F–82)
2G	Crank angle sensor (G-signal)	Always approx. 0V or approx. 5V	• Refer to Code No.03 troubleshooting (Refer to page F–82)
2H	Ground (California)	Approx. 5V	• Open circuit in wiring from ECU terminal 2H to ground
	— (Federal and Canada)	Approx. 0V	• Short circuit in wiring from ECU terminal 2H to ground
2I	Igniter	Always Approx. 0V	• Refer to Code No.01 troubleshooting (Refer to page F–81)
2J	Ground	Approx. 5V	• Open circuit in wiring from ECU terminal 2J to ground

Terminal	Connection to	Abnormal voltage	Possible cause
2K	Airflow meter	Always approx. 0V	• Short circuit in wiring from ECU terminal 2K to airflow meter • Poor connection at ECU connector • ECU malfunction
		Below 4.5V or above 5.5V	• ECU malfunction
2L	Throttle sensor (Power terminal)	Always approx. 0V	• Throttle sensor malfunction (Refer to page F–136) • Short circuit in wiring from ECU terminal 2L to throttle sensor • Poor connection at ECU connector • ECU malfunction
		Always approx. 5V	• Throttle sensor misadjustment (Refer to page F–136) • Open circuit in wiring from ECU terminal 2L to throttle sensor • Open circuit in wiring from throttle sensor to ground
2N	Oxygen sensor	0V after warm-up	• Refer to Code No.15 troubleshooting (Refer to page F–86)
		Always approx. 1V after warm-up	• Refer to Code No.17 troubleshooting (Refer to page F–86)
2O	Airflow meter	Always approx. 0V or approx. 5V	• Refer to Code No.08 troubleshooting (Refer to page F–84)
2P	Airflow meter (Intake air thermosensor)	Always approx. 0V or approx. 5V	• Refer to Code No.10 troubleshooting (Refer to page F–85)
			• Intake air thermosensor malfunction (Refer to page F–135)
2Q	Water thermosensor	Always approx. 0V or approx. 5V	• Refer to Code No.09 troubleshooting (Refer to page F–85)
			• Water thermosensor malfunction (Refer to page F–136)
2U 2V	Injector	Always approx. 0V	• Main relay malfunction (Refer to page F–139) Open or short circuit in wiring from injector to ECU terminal 2U or 2V
		Always approx. 12V	• ECU malfnction
2W	ISC valve	Always approx. 0V or approx. 12V	• Refer to Code No.34 troubleshooting (Refer to page F–87)
			• ISC valve malfunction (Refer to page F–99)
2X	Solenoid valve (Purge control)	Always approx. 0V or approx. 12V	• Refer to Code No.26 troubleshooting (Refer to page F–87)
			• Solenoid valve (Purge control) malfunction (Refer to page F–119)

05U0FX-202

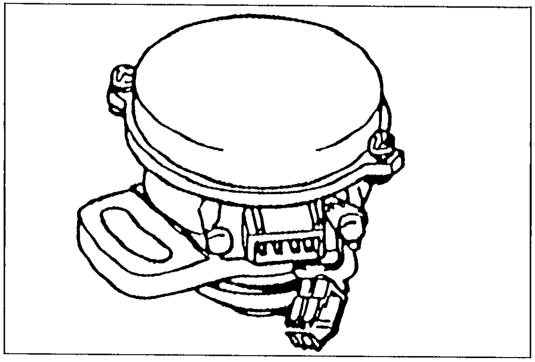
CRANK ANGLE SENSOR



05U0FX-203

Removal

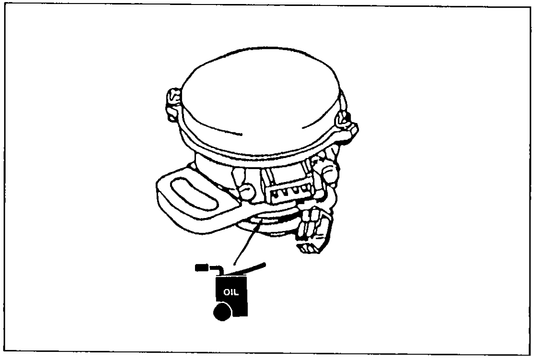
1. Disconnect the crank angle sensor connector
2. Remove the crank angle sensor.



05U0FX-204

Inspection

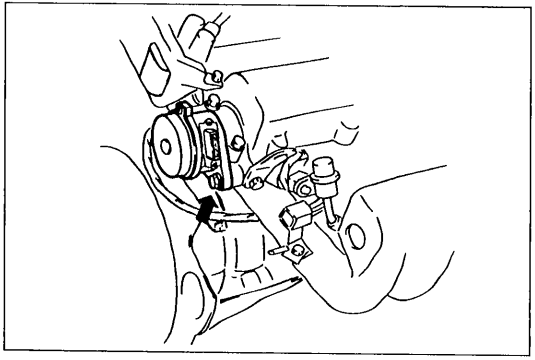
1. Visually check the crank angle sensor for damage.
2. Replace if necessary.



05U0FX-205

Installation

1. Apply grease to the new O-ring and the blade.



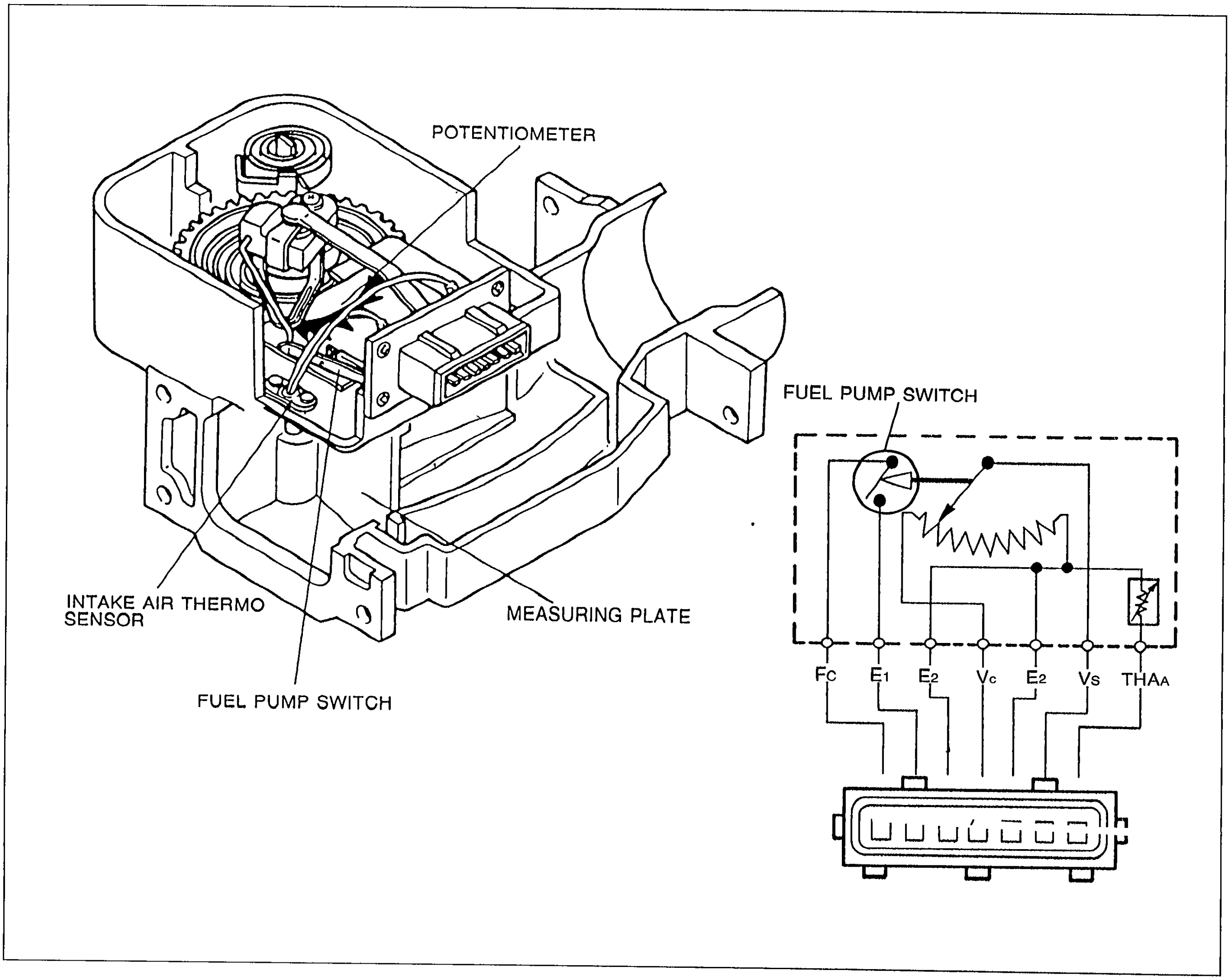
05U0FX-240

2. Install the crank angle sensor.

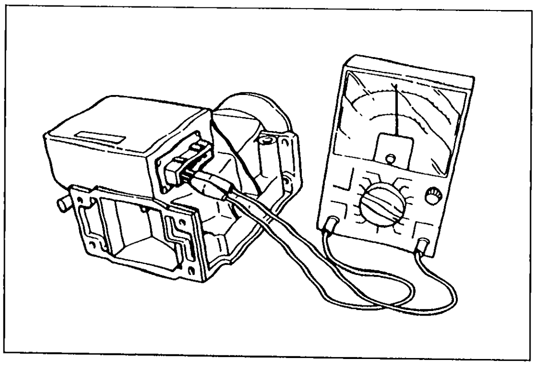
Tightening torque:
19—27 N·m (1.9—2.6 m-kg, 14—20 ft-lb)

3. Connect the crank angle sensor connector.
4. Adjust the ignition timing. (Refer to page F–75.)

AIRFLOW METER


POTENTIOMETER
FUEL PUMP SWITCH
INTAKE AIR THERMO SENSOR
MEASURING PLATE
FUEL PUMP SWITCH
Fc
E1
E2
Vc
E2
Vs
THAA

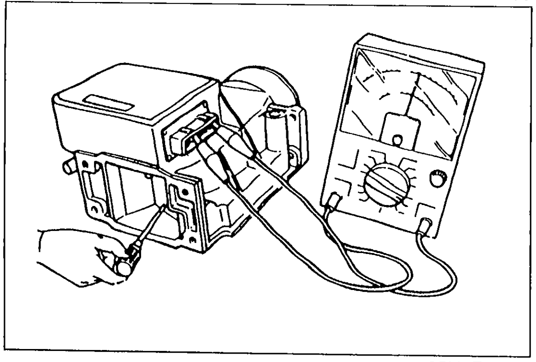
69G04A-177



05U0FX-206

Inspection

1. Remove the airflow meter. (Refer to page F–92.)
2. Check the airflow meter body for cracks.
3. Verify that the measuring plate moves smoothly.
4. Disconnect the connector from the airflow meter.
5. Move the measuring plate and check for resistance between the terminals with an ohmmeter.



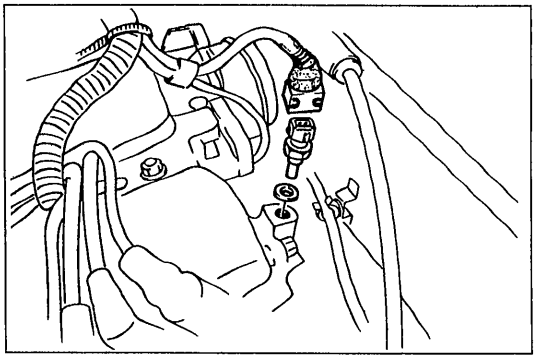
05U0FX-207

Terminal	Resistance (Ω)	
	Fully closed	Fully open
E2↔Vs	200—600	20—1,000
E2↔Vc	200—400	
E2↔THAA (Intake air thermosensor)	−20°C (−4°F) 20°C (68°F) 60°C (140°F)	13,600—18,400 2,210— 2,690 493— 667
E1↔Fc	∞	0

6. Connect the airflow meter connector after checking.

WATER THERMOSENSOR

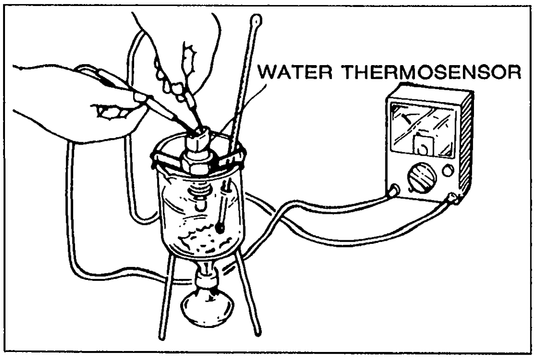
Removal



05U0FX-208

1. Remove the ignition coil assembly. (Refer to page G–21.)
2. Disconnect the water thermosensor connector.
3. Remove the water thermosensor.

Inspection



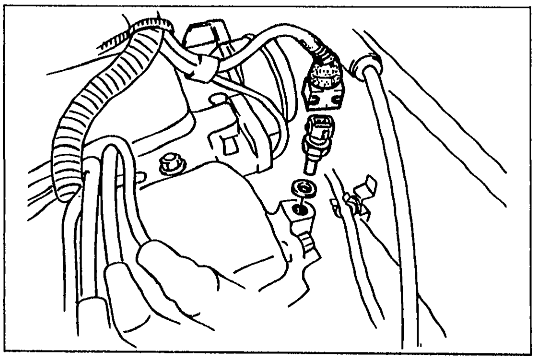
05U0FX-209

1. Place the sensor in water with a thermometer and heat the water gradually.
2. Measure resistance of the sensor with an ohmmeter.

Coolant	Resistance kΩ
−20°C (−4°F)	14.6 —17.8
20°C (68°F)	2.2 — 2.7
80°C (176°F)	0.29— 0.35

3. If not as specified, replace the water thermosensor.

Installation



05U0FX-210

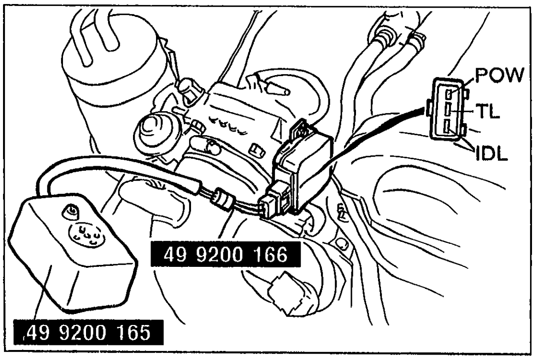
1. Install the water thermosensor and a new washer.

Tightening torque:
25—29 N·m (2.5—3.0 m-kg, 18—22 ft-lb)

2. Connect the water thermosensor connector.
3. Install the ignition coil assembly. (Refer to page G–21.)

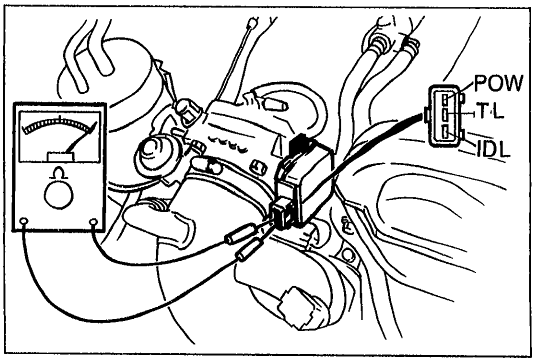
THROTTLE SENSOR

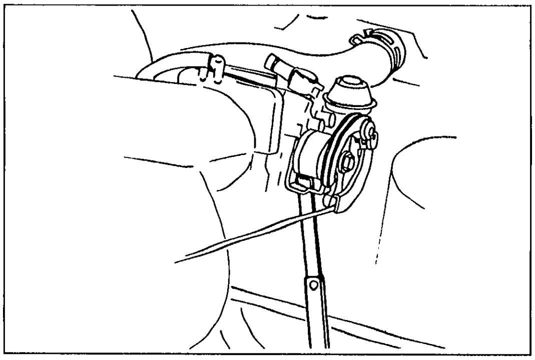
Inspection



05U0FX-211

1. Disconnect the connector from the throttle sensor.
2. Connect the **(SSTs)** or an ohmmeter to the throttle sensor.

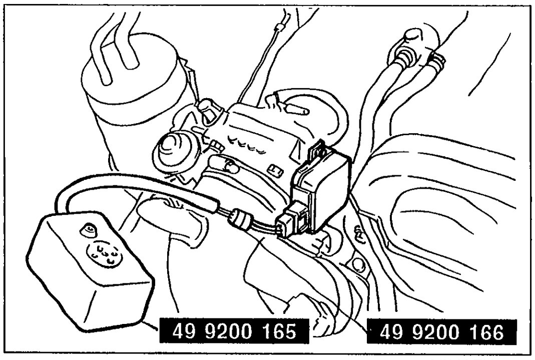




05U0FX-212

3. Insert a feeler gauge between the throttle stop screw and the stop lever.
4. Note the operation of the buzzer or the continuity between terminals.

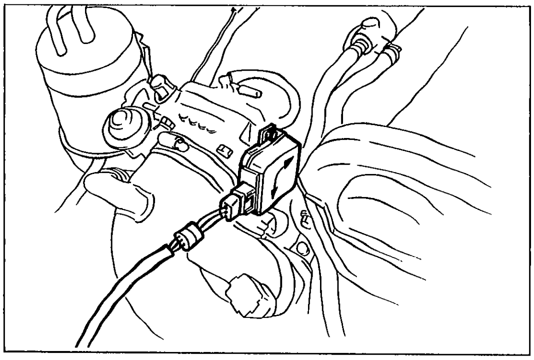
Feeler gauge	Buzzer	Continuity between terminals	
		IDL↔TL	POW↔TL
0.4mm (0.016 in)	Yes	Yes	No
0.7mm (0.027 in)	No	No	No
Wide-open throttle	Yes	No	Yes



05U0FX-213

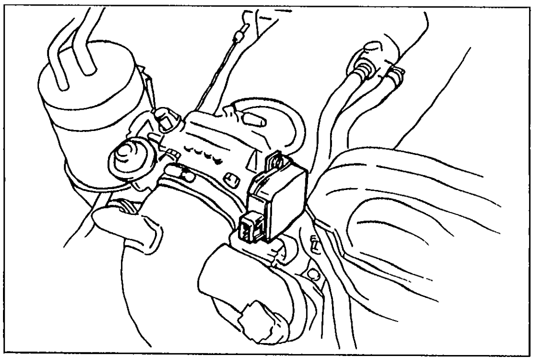
Adjustment

1. Disconnect the connector from the throttle sensor and connect the **SSTs**.
2. Insert a **0.4mm (0.016 in)** feeler gauge between the throttle stop screw and the stop lever.



05U0FX-214

3. Loosen the two attaching screws.
4. Rotate the throttle sensor clockwise **approx. 30 degrees**, then rotate it back counterclockwise until the buzzer sounds.
5. Replace the feeler gauge with a **0.7mm (0.027 in)** gauge.
6. Verify that the buzzer does not sound.
7. If it sounds, repeat Steps 3 through 6.



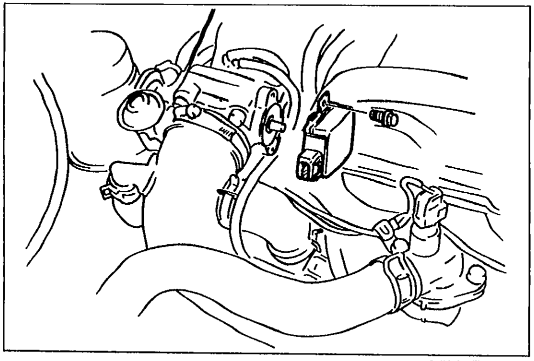
05U0FX-215

8. Tighten the two attaching screws.

Note

- **Do not move the throttle sensor from the set position when tightening the screws.**

9. Open the throttle valve fully a few times.
10. Recheck the adjustment of the throttle sensor.



05U0FX-216

Replacement

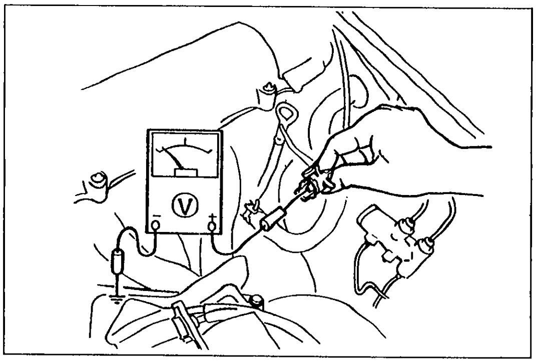
1. Disconnect the throttle sensor connector.
2. Remove the throttle sensor mounting screws.
3. Remove the throttle sensor.
4. Install in the reverse order of removal.

Tightening torque:
1.6—2.4 N·m (16—24 cm-kg, 13.9—20.8 in-lb)

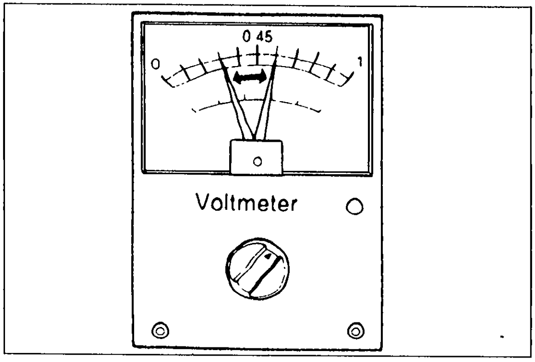
OXYGEN SENSOR

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**



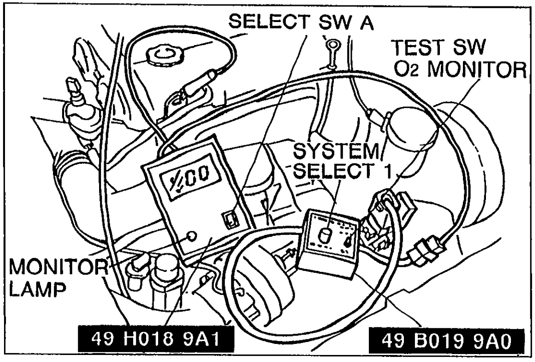
05U0FX-217


0 45
0
1
Voltmeter

05U0FX-218

Inspection of Terminal Voltage

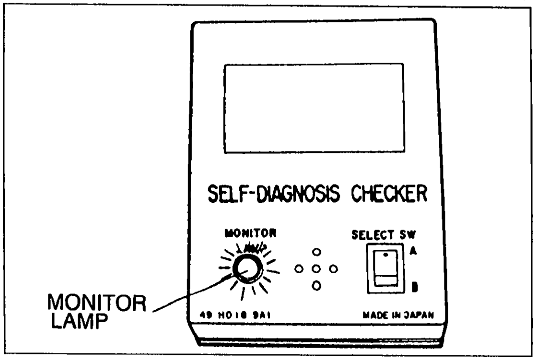
1. Warm up the engine and run it at idle.
2. Disconnect the oxygen sensor connector.
3. Connect a voltmeter between the oxygen sensor and a ground.
4. Run the engine **at 3,000 rpm** until the voltmeter indicates **approx. 0.55V**.
5. Increase and decrease the engine speed suddenly several times. Verify that when the speed is increased the meter reads **0.5V—1.0V**, and when the speed is decreased it reads **0V—0.4V**.
6. If not as specified, replace the oxygen sensor.


SELECT SW A
TEST SW
O2 MONITOR
SYSTEM SELECT 1
MONITOR LAMP
49 H018 9A1
49 B019 9A0

05U0FX-219

Inspection of Sensitivity

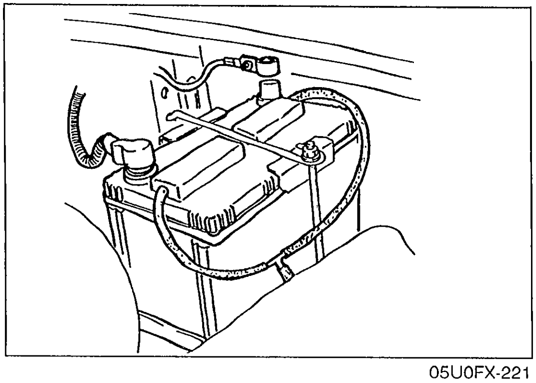
1. Warm up the engine to normal operating temperature.
2. Connect the **SST** to the diagnosis connector.
3. Set the **SST** as shown.


SELF-DIAGNOSIS CHECKER
MONITOR
SELECT SW
A
B
49 H018 9A1
MADE IN JAPAN
MONITOR LAMP

05U0FX-220

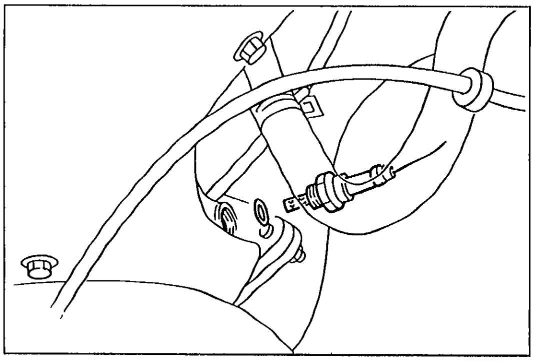
4. Increase the engine speed to **between 2,000 and 3,000 rpm**, and verify that the moniter lamp flashes for **10 sec.**. If not as specified, replace the oxygen sensor. (Refer to page F–139.)

   Monitor lamp: Flashes more than 8 times/10 seconds



05U0FX-221

5. Turn the ignition switch OFF.
6. Disconnect the negative battery terminal and depress the brake pedal for **at least 5 sec.** to eliminate the malfunction code that was created during inspection from the control unit memory.

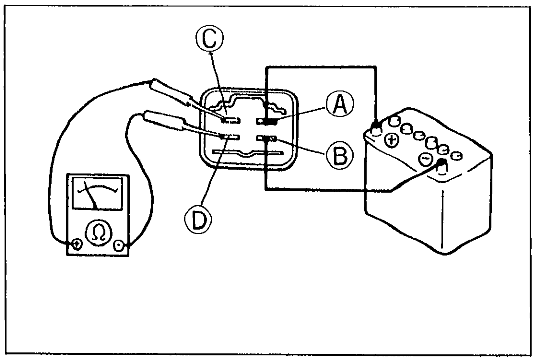


05U0FX-222

Replacement

1. Disconnect the oxygen sensor connector.
2. Remove the oxygen sensor.
3. Install in the reverse order of removal.

Tightening torque:
29—49 N·m (3—5 m-kg, 22—36 ft-lb)



05U0FX-223

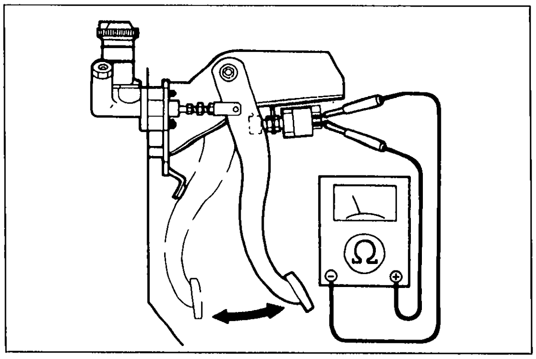
MAIN RELAY (FUEL INJECTOR RELAY)

Inspection

1. Verify that the main relay clicks when turning the ignition switch OFF → ON.
2. Apply **12V** to terminal A and ground terminal B of the main relay.
3. Use an ohmmeter to check continuity of the terminals as shown.

Terminals	12V not applied	12V applied
C—D	No continuity	Continuity

4. If not as specified, replace the main relay.



05U0FX-224

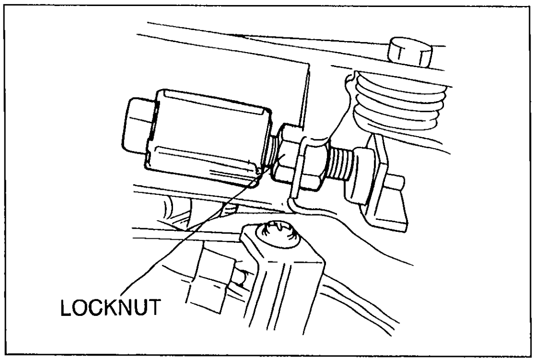
CLUTCH SWITCH

Inspection

1. Disconnect the clutch switch connector.
2. Connect an ohmmeter to the switch.
3. Check continuity of the switch.

Pedal	Continuity
Depressed	Yes
Released	No

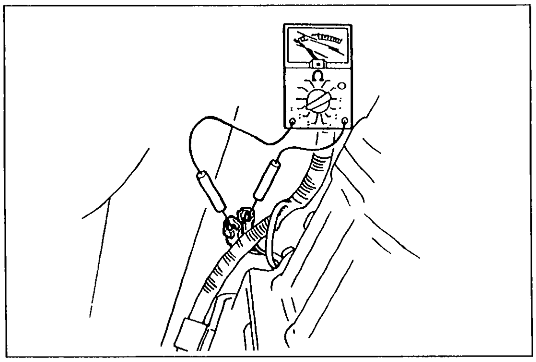
4. If not as specified, replace the clutch switch.



05U0FX-225

Replacement

1. Disconnect the clutch switch connector.
2. Loosen the locknut.
3. Remove the clutch switch.
4. Install in the reverse order of removal.
5. Adjust the pedal height. (Refer to page H–5.)



05U0FX-226

NEUTRAL SWITCH

Inspection

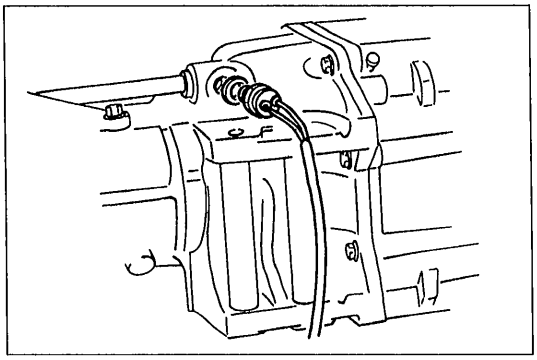
1. Disconnect the neutral switch connector.
2. Connect an ohmmeter to the switch.
3. Check continuity of the switch.

Transmission	Continuity
Neutral	Yes
Other ranges	No

4. If not as specified, replace the neutral switch.

Replacement

Replace the neutral switch as shown in the figure.



9MU0F2-240

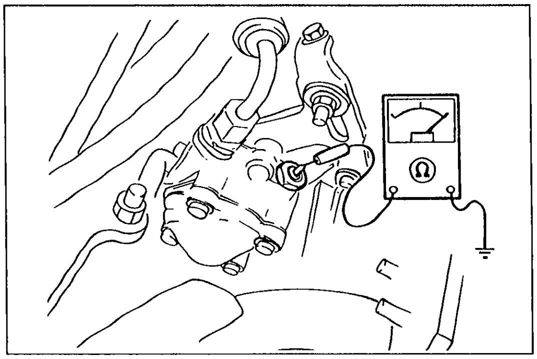
POWER STEERING PRESSURE SWITCH

Inspection

1. Disconnect the P/S pressure switch connector.
2. Connect an ohmmeter to the switch.
3. Start the engine and let it idle. Check continuity of the switch while turning the steering wheel.

P/S	Continuity
Turning	Yes
Not turning	No

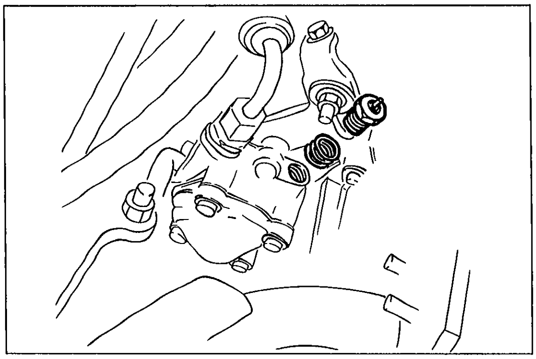
4. If not as specified, replace the P/S pressure switch.



05U0FX-227

Replacement

Replace the P/S pressure switch as shown in the figure.



9MU0F2-242

ENGINE ELECTRICAL SYSTEM

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TROUBLESHOOTING GUIDE .... G– 4
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  PREPARATION .... G– 6
  CIRCUIT DIAGRAM .... G– 6
  TROUBLESHOOTING .... G– 7
  BATTERY .... G– 8
  ALTERNATOR G–12
  SELF-DIAGNOSIS SYSTEM G–12
  DRIVE BELT G–15
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05U0GX-001

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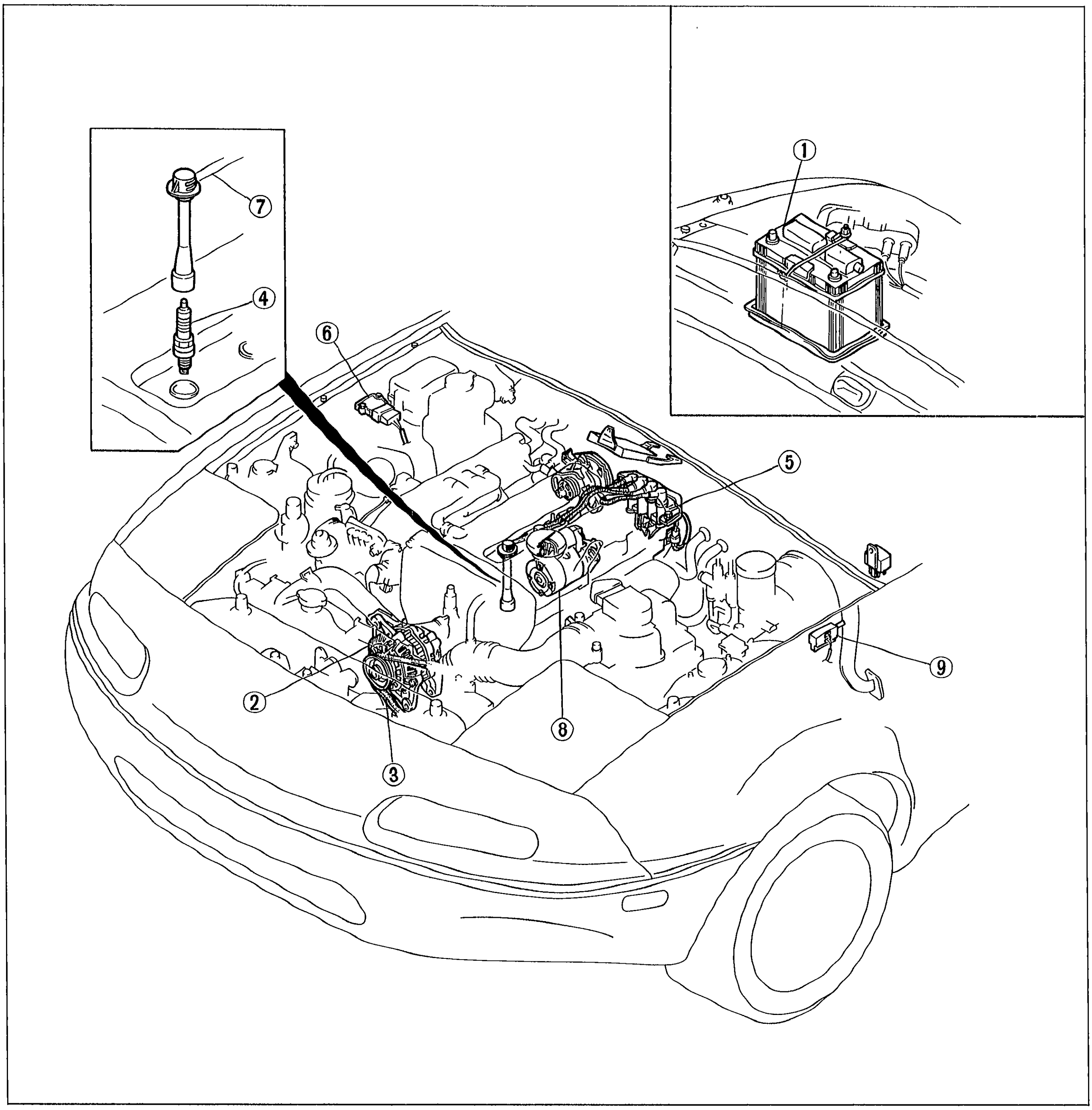

05U0GX-002

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    Recharging...... page G– 9
    Replacement.... page G–10
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    Inspection........ page G–29

OUTLINE

SPECIFICATIONS

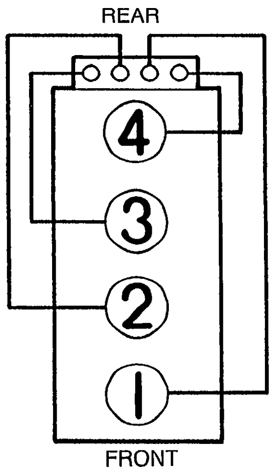
Item \ Engine			B6 DOHC
Battery	Voltage V		12, Negative ground
	Type and capacity (5-hour rate)		S46A24L(S) (32 Ah) Maintenance-free
Dark current*1 mA			20.0
Alternator	Type		A.C.
	Output V, A		12, 60
	Regulator type		Transistorized (built-in IC regulator)
	Regulated voltage		14.1—14.7
	Brush length mm (in)	Standard	21.5 (0.85)
		Minimum	8 (0.31)
	Drive belt tension mm (in)	New	8—9 (0.31—0.35)
		Used	9—10 (0.35—0.39)
Starter	Type		Conventional
	Output V-kW		12-0.95
	Brush length mm (in)	Standard	17.0 (0.67)
		Minimum	11.5 (0.45)
Ignition system	Type		Electronic spark advance (ESA)
	Spark advance control		Engine control unit controls spark advance
Ignition timing BTDC			10° ± 1° *2
Ignition coil	Type		Molded
	Primary coil winding kΩ		0.78—0.94
	Secondary coil winding kΩ		11.2—15.2
Spark plug	Type		NGK : BKR5E-11 BKR6E-11 BKR7E-11 Nippon Denso : K16PR-U11 K20PR-U11 K22PR-U11
	Plug gap mm (in)		1.0—1.1 (0.039—0.043)
	Firing order		1—3—4—2

05U0GX-003

[1] Dark current is the constant flow of current while the ignition switch is OFF (i.e. engine control unit, audio, etc.)

[2] With System Selector (49 B019 9A0) test switch at SELF TEST.

Cylinder Arrangement

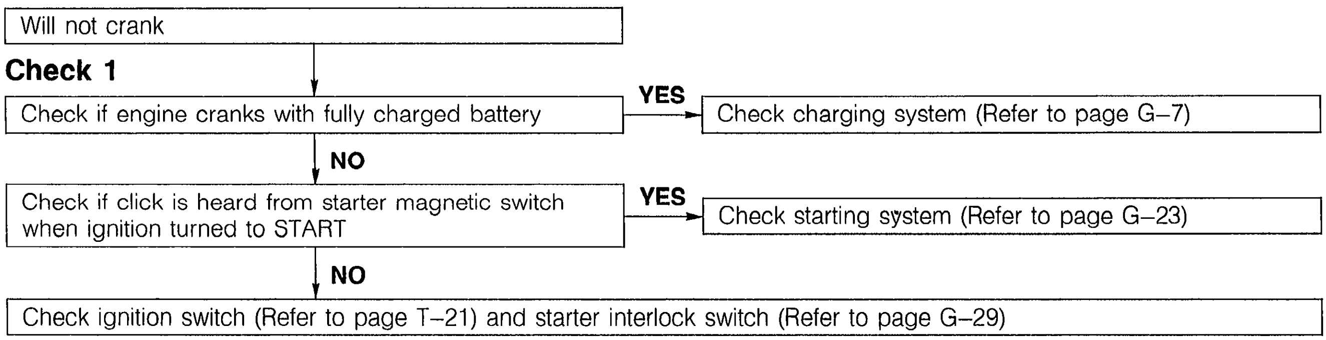


05U0GX-076

TROUBLESHOOTING GUIDE

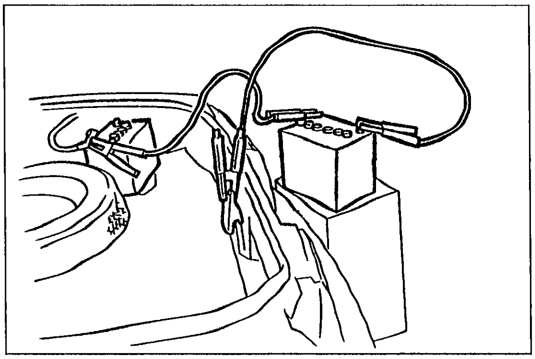
Problem	Page
Will not crank	**G–4**
Cranks slowly	**G–4**
Discharged battery	**G–5**
Misfire	**G–5**

Will not crank

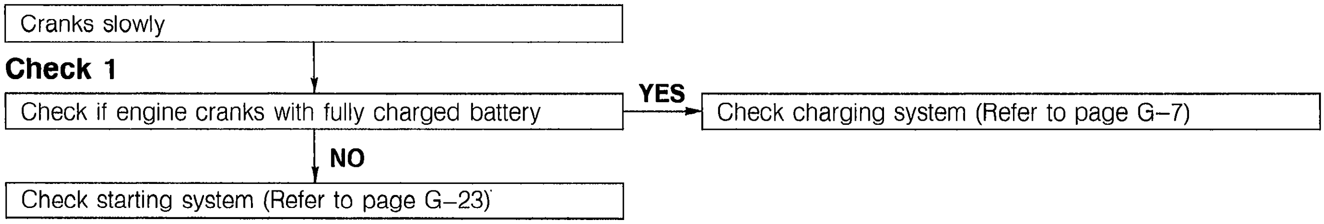

Will not crank
Check 1
Check if engine cranks with fully charged battery
YES
Check charging system (Refer to page G–7)
NO
Check if click is heard from starter magnetic switch when ignition turned to START
YES
Check starting system (Refer to page G–23)
NO
Check ignition switch (Refer to page T–21) and starter interlock switch (Refer to page G–29)

05U0GX-004

Check 1

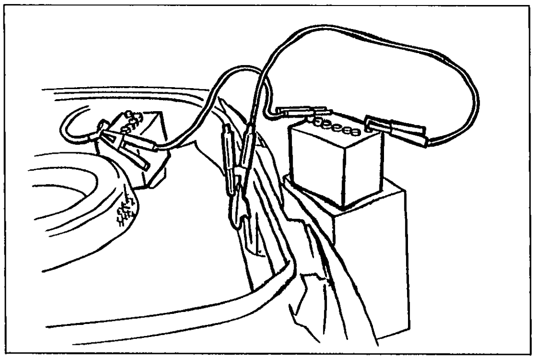


Cranks slowly


Cranks slowly
Check 1
Check if engine cranks with fully charged battery
YES
Check charging system (Refer to page G–7)
NO
Check starting system (Refer to page G–23)

05U0GX-005

Check 1



Discharged battery

Discharged battery → Check charging system (Refer to page G–7)

05U0GX-006

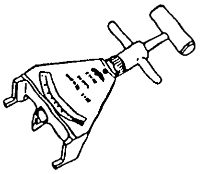
Misfire

Misfire → Check ignition system (Refer to page G–18)

05U0GX-007

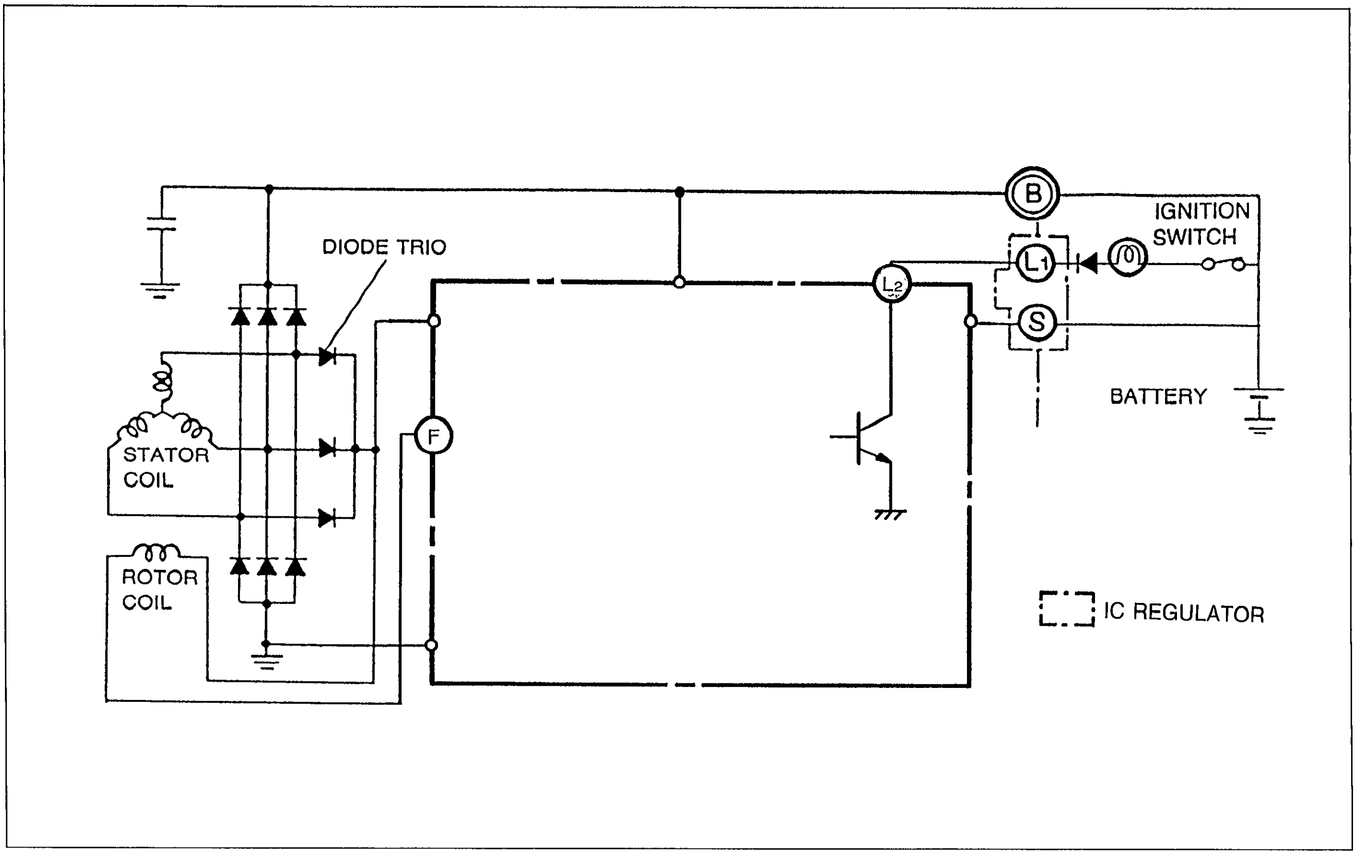
CHARGING SYSTEM

PREPARATION
SST

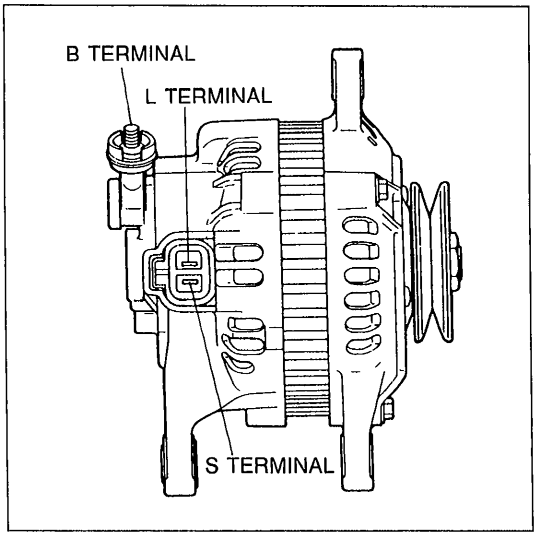
49 9200 020 V-ribbed belt tension gauge 	For inspection of drive belt tension

05U0GX-008

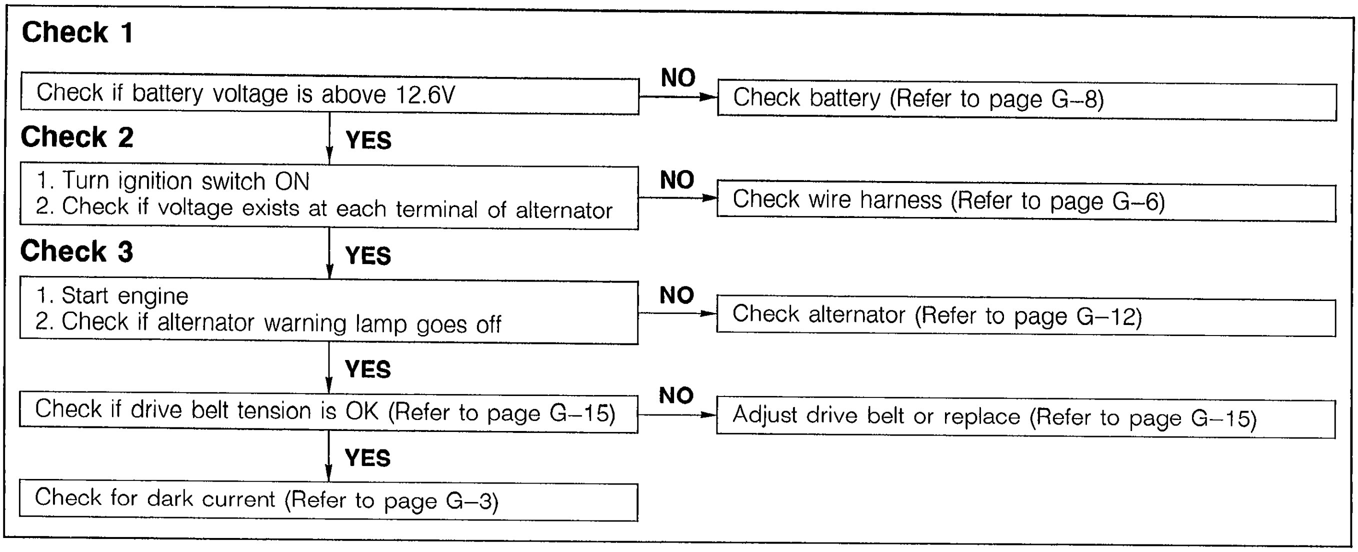
CIRCUIT DIAGRAM


B
IGNITION SWITCH
DIODE TRIO
L1
L2
S
BATTERY
F
STATOR COIL
ROTOR COIL
IC REGULATOR

05U0GX-009

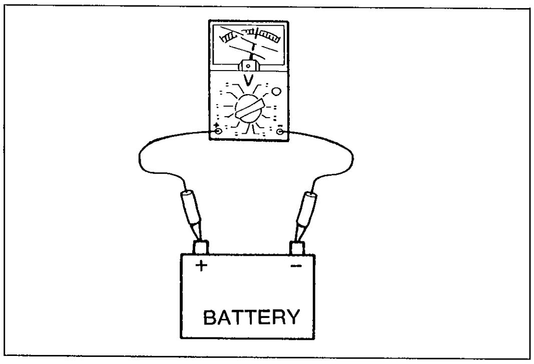

B TERMINAL
L TERMINAL
S TERMINAL

TROUBLESHOOTING

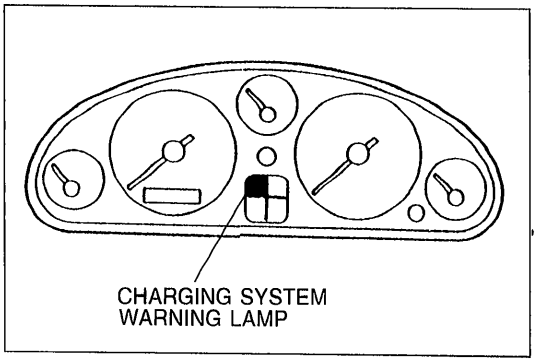

Check 1
Check if battery voltage is above 12.6V
NO
Check battery (Refer to page G–8)
Check 2
YES
1. Turn ignition switch ON
2. Check if voltage exists at each terminal of alternator
NO
Check wire harness (Refer to page G–6)
Check 3
YES
1. Start engine
2. Check if alternator warning lamp goes off
NO
Check alternator (Refer to page G–12)
YES
Check if drive belt tension is OK (Refer to page G–15)
NO
Adjust drive belt or replace (Refer to page G–15)
YES
Check for dark current (Refer to page G–3)

05U0GX-010

Check 1



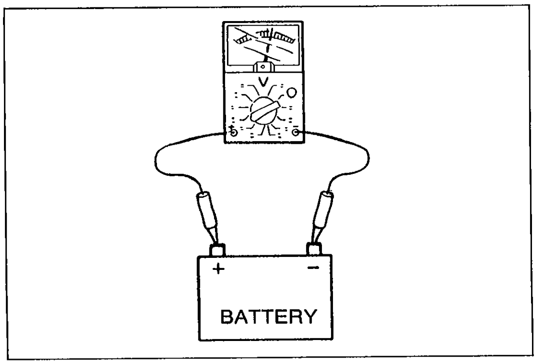
Check 3


CHARGING SYSTEM WARNING LAMP

Check 2

Ignition switch / Terminal	OFF	ON	ON (Idle)
B	Approx. 12V	Approx. 12V	Approx. 14V
L	Approx. 0V	Approx. 1V	Approx. 14V
S	Approx. 12V	Approx. 12V	Approx. 14V

05U0GX-011



05U0GX-012

BATTERY

Caution

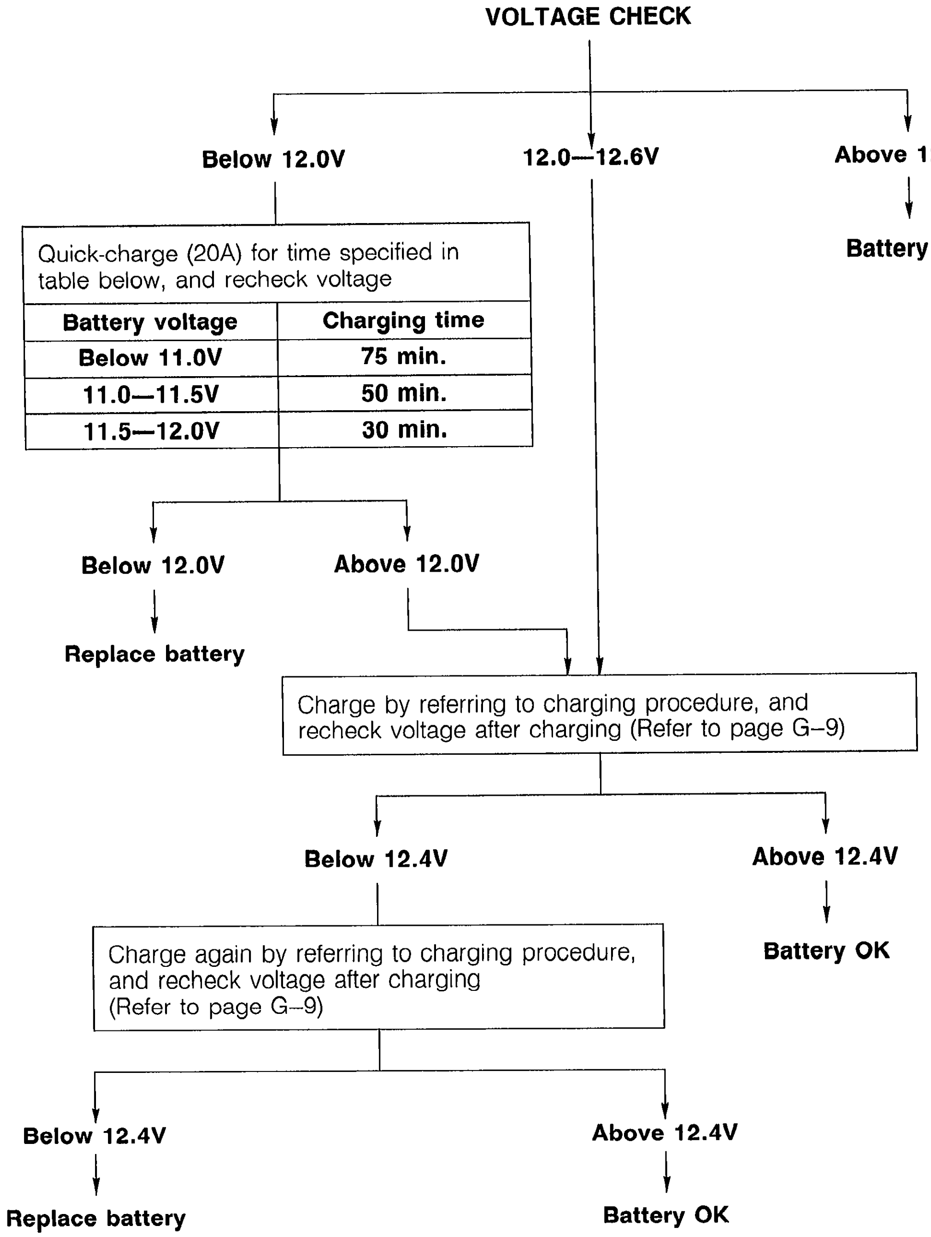
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

Inspection

Warning

- **The negative battery cable must be removed first and installed last.**

1. Disconnect the battery cables from the battery.
2. Connect a voltmeter to the battery.



VOLTAGE CHECK

Below 12.0V → Quick-charge (20A) for time specified in table below, and recheck voltage

Battery voltage	Charging time
Below 11.0V	75 min.
11.0—11.5V	50 min.
11.5—12.0V	30 min.

- **Below 12.0V** → **Replace battery**
- **Above 12.0V** → Charge by referring to charging procedure, and recheck voltage after charging (Refer to page G–9)

12.0—12.6V → Charge by referring to charging procedure, and recheck voltage after charging (Refer to page G–9)

- **Below 12.4V** → Charge again by referring to charging procedure, and recheck voltage after charging (Refer to page G–9)
  - **Below 12.4V** → **Replace battery**
  - **Above 12.4V** → **Battery OK**
- **Above 12.4V** → **Battery OK**

Above 12.6V → **Battery OK**

05U0GX-013

Terminal and cable

1. Clean and tighten the battery terminals and cables.
2. Coat the terminals with grease.
3. Inspect for corroded or frayed battery cables.
4. Check the rubber protector on the positive terminal for proper coverage.

05U0GX-014

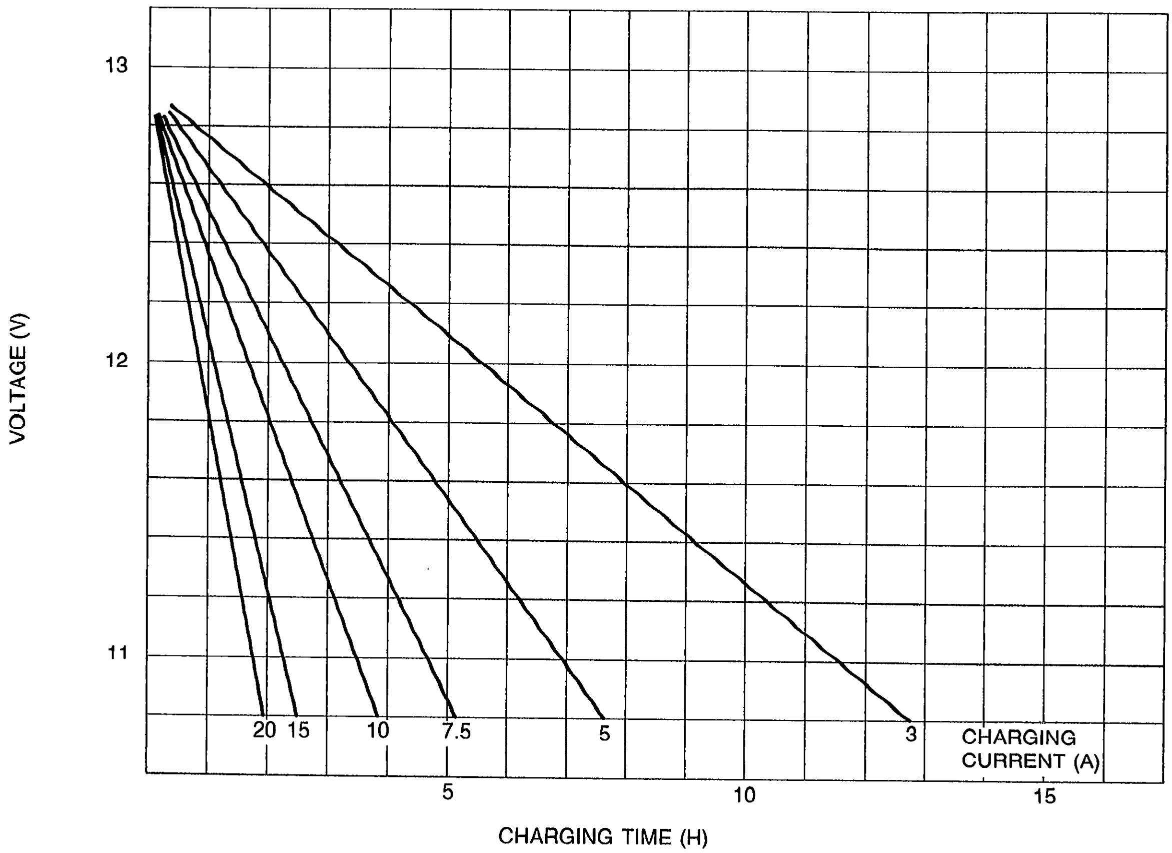
Recharging

Battery	Slow charge (A)	Quick charge (A)
S46A24L(S)	Under 3	Max. 20

Warning
- **Before performing maintenance or recharging the battery, turn off all accessories and stop the engine.**
- **The negative battery cable must be removed first and installed last.**

Caution
- **Do not removed vent caps.
Follow carefully the instructions of the battery charger to prevent overcharging.**

1. Remove the battery cover.
2. Disconnect the battery cables from the battery.
3. Measure and record the voltage between the battery terminals.
4. Decide the charging current and charging time by referring to the figure below.
5. Charge the battery.



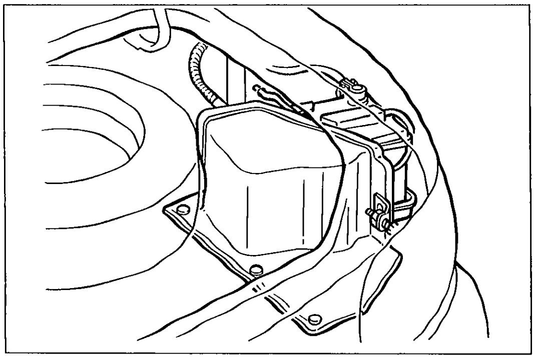
05U0GX-015

Replacement

Note

- **The factory-installed battery in the MX-5 Miata cannot be purchased over the counter. When replacing the battery, replace it with a Mazda genuine battery (with vent manifold) or equivalent and use a Mazda genuine battery replacement kit (battery tray, battery clamp, and clamp bolt; Part number NAY1 56 020A) or equivalent.**

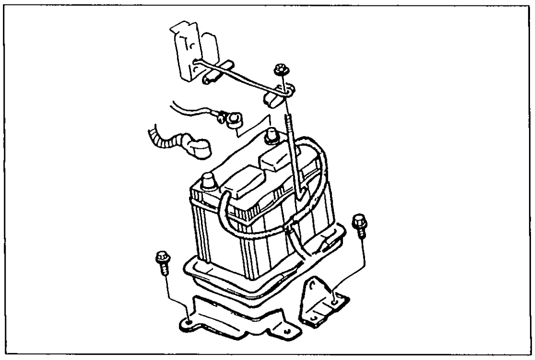
05U0GX-016



05U0GX-017

Battery replacement using the Mazda genuine battery replacement kit is as follows.

1. Remove the battery cover.

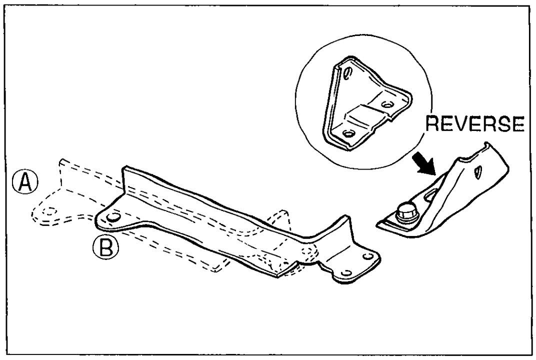


05U0GX-018

Warning

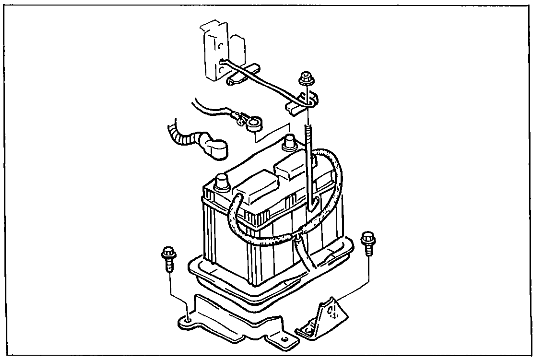
- **The negative battery cable must be removed first and installed last.**

2. Disconnect the battery cables from the battery.
3. Remove the battery clamp.
4. Remove the battery.
5. Disconnect the battery vent hoses.
6. Remove the battery tray.
7. Remove the battery bracket.



05U0GX-019

8. Reverse the battery clamp bracket as shown.
9. Change the position of the battery bracket Ⓐ to Ⓑ as shown.

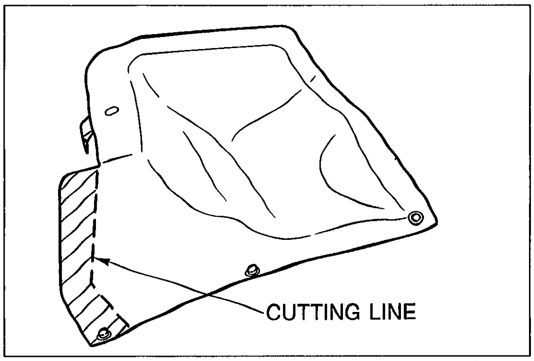


05U0GX-020

Warning

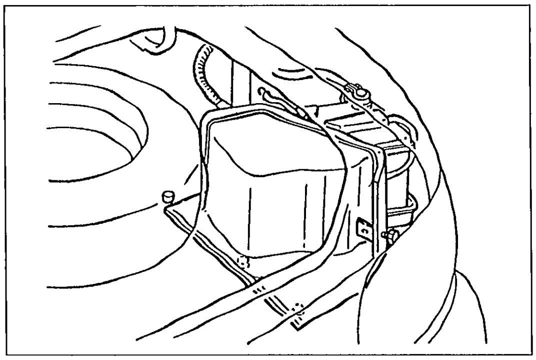
- **Install the battery vent hoses correctly to reduce the possibility of injury or fire.**

10. Install the new battery using the battery replacment kit (Part number NAY1 56 020A).



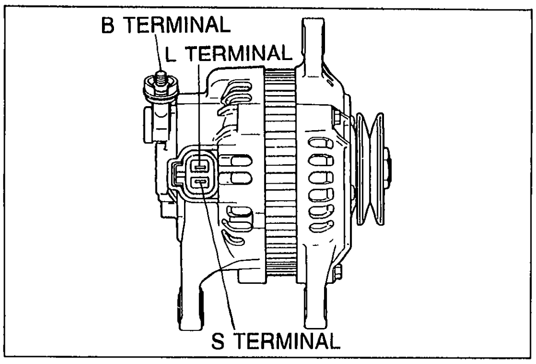
05U0GX-021

11. Trim off the shadded area of the battery cover as shown for proper fitting to new battery.



05U0GX-022

12. Install the battery cover as shown.

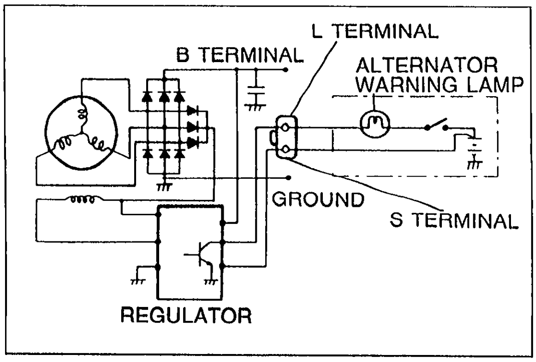


05U0GX-023

ALTERNATOR

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**
- **Be sure the battery connections are not reversed because this will damage the rectifier.**
- **Do not use high-voltage testers such as a megger because they will damage the rectifier.**
- **Remember that battery voltage is always applied to the alternator B terminal.**
- **Do not ground the L terminal while the engine is running.**
- **Do not start the engine while the connector is disconnected from the L and S terminals.**



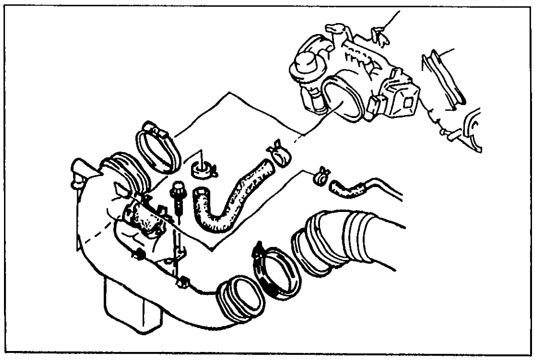
05U0GX-024

SELF-DIAGNOSIS SYSTEM

The alternator has a self-diagnostic function to warn of problems in the charging system.

If any of the following problems arise, the alternator warning lamp illuminates.

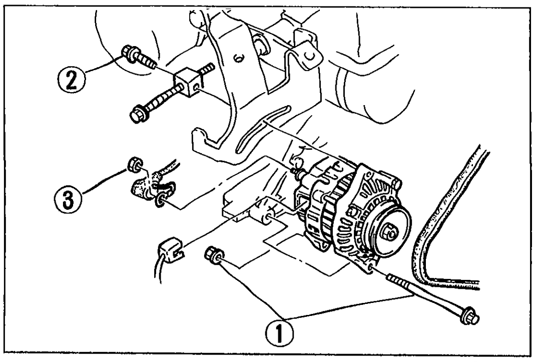
1. S circuit open.
2. No voltage output.
3. Field circuit open.
4. B circuit open.
5. Voltage output too high.



05U0GX-025

Removal / Installation

1. Disconnect the negative battery cable.
2. Disconnect the P/S pressure switch connector.
3. Disconnect the water thermoswitch connector.
4. Disconnect the ISC valve connector.
5. Remove the air pipe.



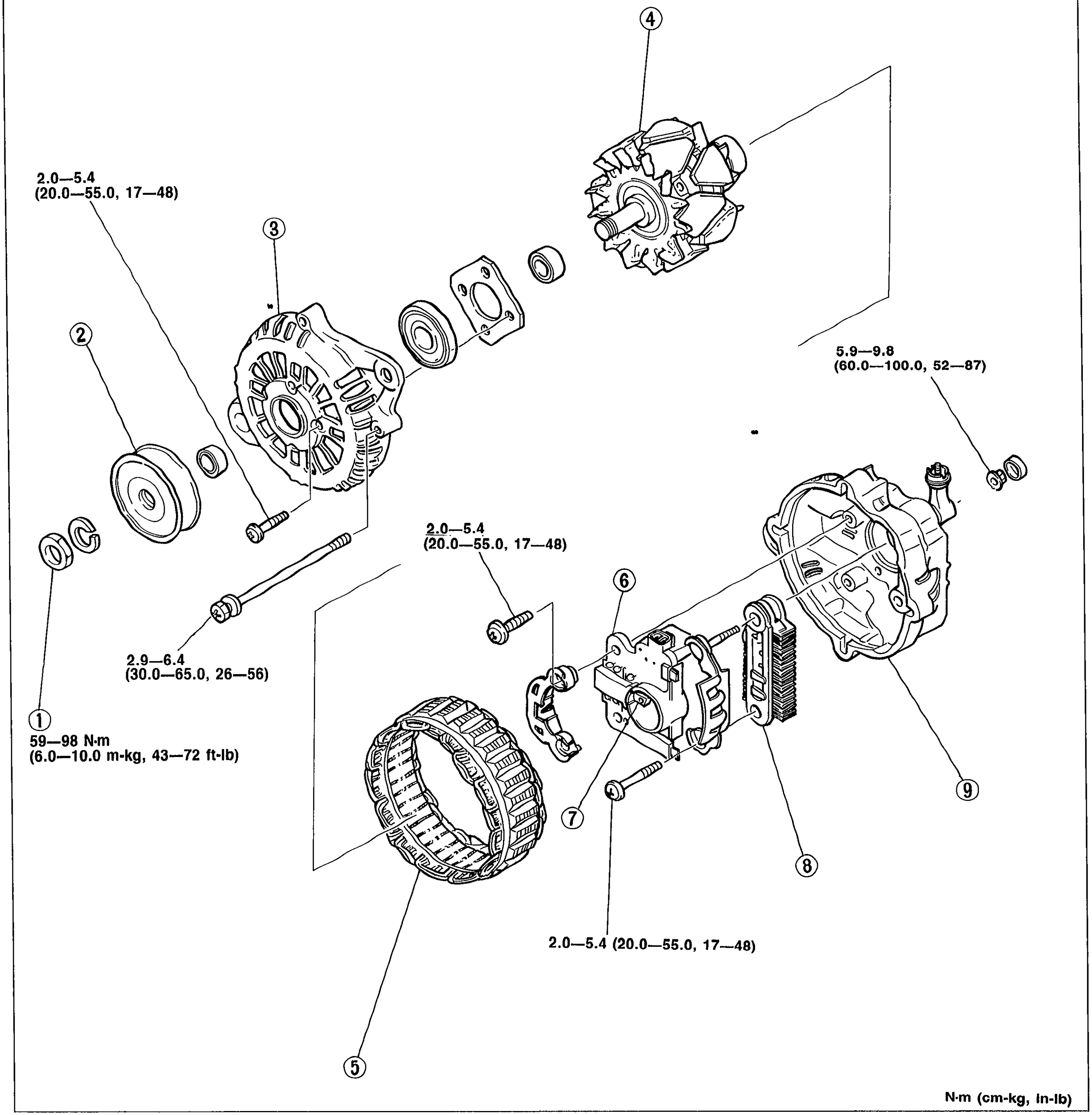
05U0GX-026

6. Disconnect the wire and connector from the alternator.
7. Remove the alternator bolts and nut.
8. Remove the alternator.
10. Install in the reverse order of removal.

Tightening torque
Bolt, Nut (1):
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)
Bolt (2):
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)
Nut (3):
9.8—15 N·m (100—150 cm-kg, 87—130 in-lb)

Disassembly / Assembly

1. Disassemble in the order shown in the figure.
2. Assemble in the reverse order of disassembly.

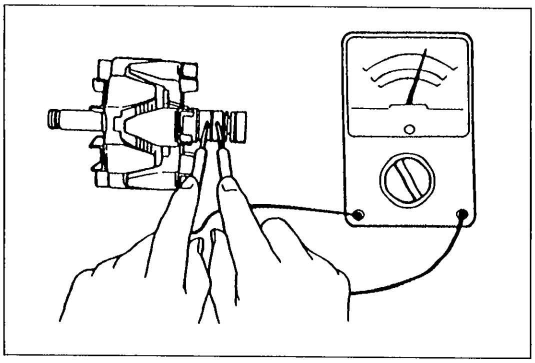

④
2.0—5.4
(20.0—55.0, 17—48)
③
②
5.9—9.8
(60.0—100.0, 52—87)
2.0—5.4
(20.0—55.0, 17—48)
⑥
2.9—6.4
(30.0—65.0, 26—56)
①
59—98 N·m
(6.0—10.0 m-kg, 43—72 ft-lb)
⑨
⑦
⑧
2.0—5.4 (20.0—55.0, 17—48)
⑤
N·m (cm-kg, in-lb)

05U0GX-027

1. Pulley nut
2. Pulley
3. Front cover
4. Rotor
   Inspection.................................. page G–14
5. Stator
   Inspection.................................. page G–14
6. Brush holder assembly
   Inspection.................................. page G–15
7. Brush
   Inspection.................................. page G–14
8. Rectifier
   Inspection.................................. page G–15
9. Rear cover

Inspection

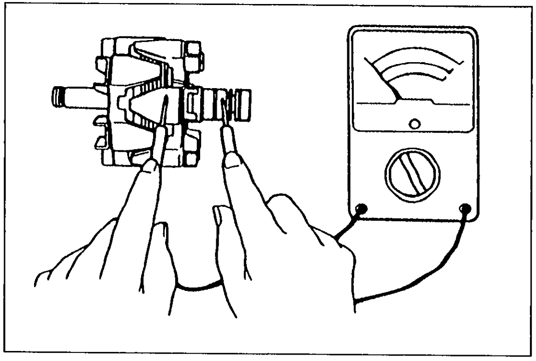
Rotor


05U0GX-028

1. Winding damage
   (1) Check the resistance between the slip rings with an ohmmeter.

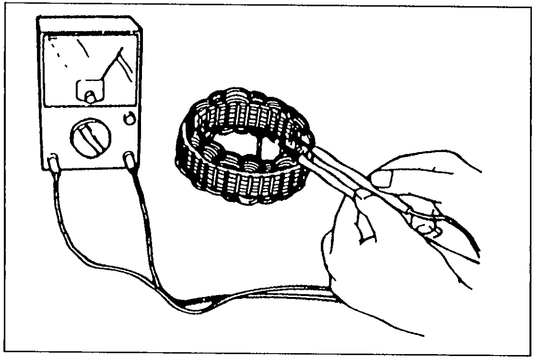
   Specification: 3.5—4.5Ω/20°C (68°F)

   (2) If it is not within specification, replace the rotor.

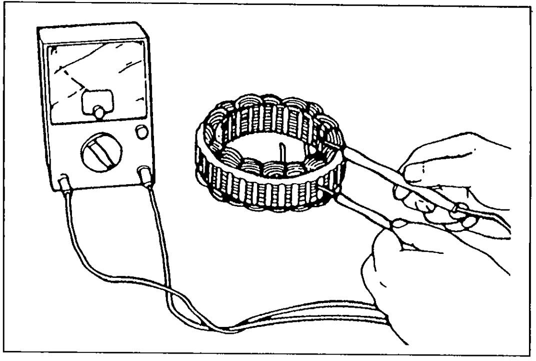

05U0GX-029

2. Ground of field coil
   (1) Check for continuity between each slip ring and the core with an ohmmeter.
   (2) Replace the rotor if there is continuity.
3. Slip ring surface
   If the slip ring surface is rough, use fine sandpaper to repair it.

Stator

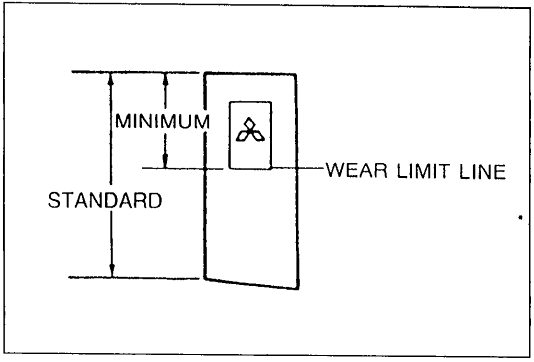

05U0GX-030

1. Wiring damage
   (1) Check for continuity between the stator coil leads with an ohmmeter.
   (2) Replace the stator if there is no continuity.


05U0GX-031

2. Ground of stator coil
   (1) Check for no continuity between the stator coil leads and the core with an ohmmeter.
   (2) Replace the stator if there is continuity.

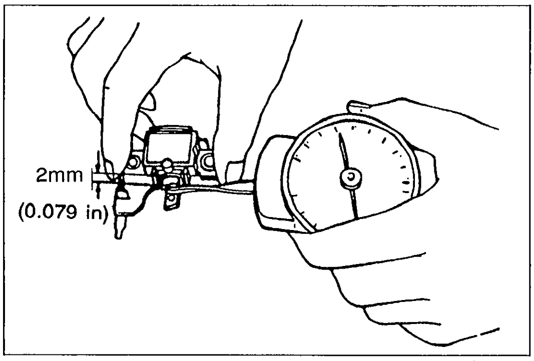
Brush



9MU0GX-025

If the brushes are worn almost to or beyond the limit, replace them.

Standard: 21.5mm (0.846 in)
Minimum: 8.0mm (0.315 in)



05U0GX-032

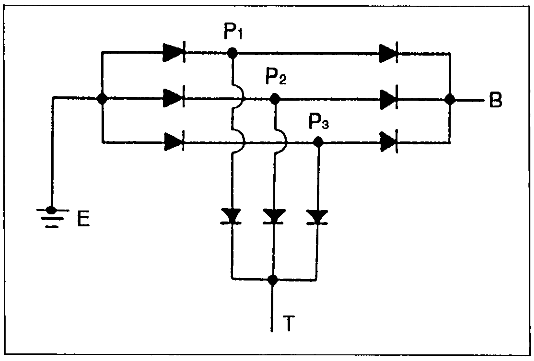
Brush Spring

1. Measure the force of the brush spring with a spring pressure gauge.
2. Replace the spring if necessary.

Standard force:
3.1—4.3 N (320—440 g, 11.3—15.5 oz)
Minimum: 1.6—2.4 N (160—240 g, 5.6—8.5 oz)

Note

- **Read the spring pressure gauge at a brush tip projection of 2mm (0.079 in).**



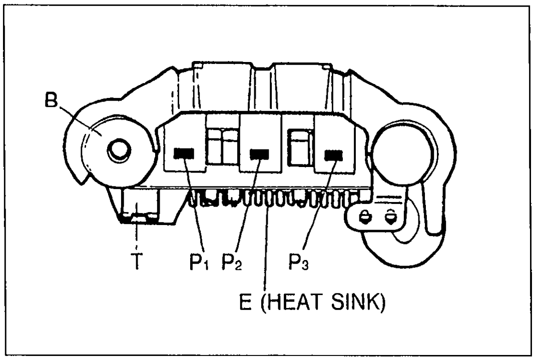
05U0GX-033

Rectifier

1. Check for continuity of the diodes with an ohmmeter.

Negative (Black)	Positive (Red)	Continuity
E	P_1, P_2, P_3	Yes
B		No
T		No
P_1, P_2, P_3	E	No
	B	Yes
	T	Yes

2. Replace the rectifier if necessary.

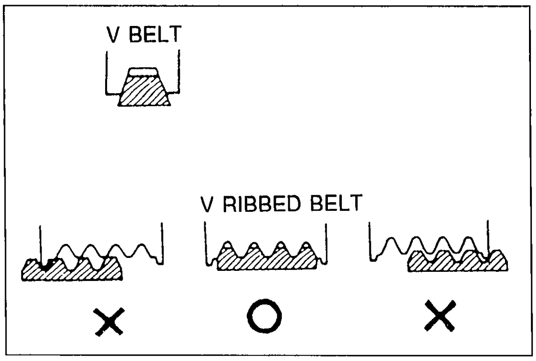


05U0GX-034

DRIVE BELT

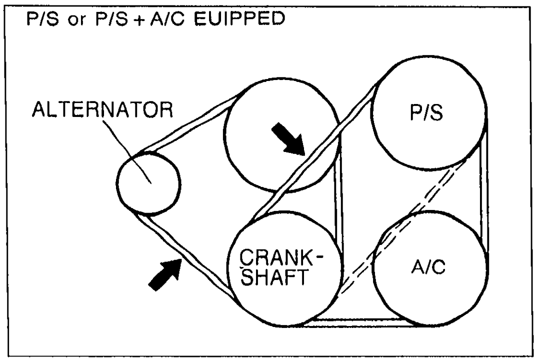
Inspection

1. Remove the air intake pipe.
2. Check the drive belts for wear, cracks, or fraying. Replace if necessary.
3. Verify that the drive belts are correctly mounted on the pulleys.



05U0BX-009

4. Check the drive belt deflection by applying moderate pressure **(98 N, 10 kg, 22 lb)** midway between the pulleys as shown in the figure. Adjust if necessary.

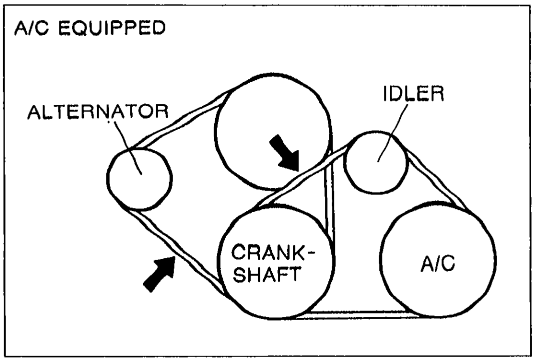


05U0BX-010

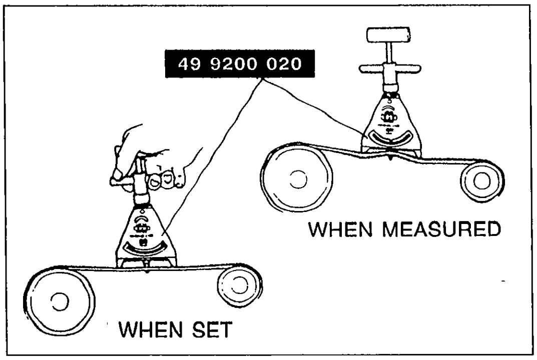
Deflection

mm (in)

Drive belt	New	Used
Alternator	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)
P/S, P/S + A/C	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)
A/C	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)



05U0BX-011



05U0BX-012

5. Check the drive belt tension with a tension gauge.

Note

- **Belt tension can be measured between any pulleys.**

Tension

N (kg, lb)

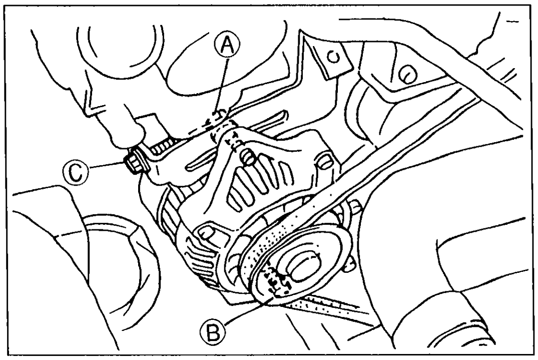
Drive belt	New	Used
Alternator	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)
P/S, P/S + A/C	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)
A/C	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)

6. Install the air intake pipe.

Adjustment

Caution

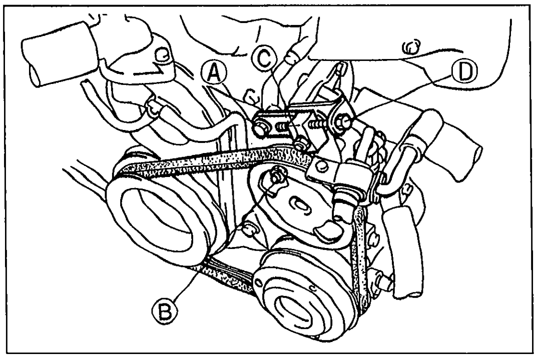
- **If a new belt is used, adjust the belt deflection at the midpoint of new belt specification.**



05U0BX-013

(1) Alternator belt
If necessary, loosen the alternator bolts Ⓐand Ⓑand adjust the belt deflection by turning the adjusting bolt Ⓒ.

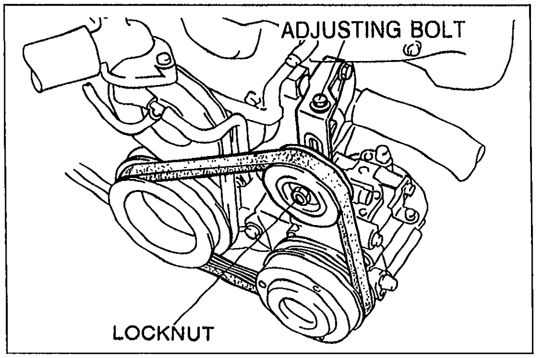
Tightening torque
Ⓐ: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)
Ⓑ: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)



05U0BX-014

(2) P/S belt, P/S + A/C belt
If necessary, loosen the P/S oil pump bolts Ⓐand Ⓑ and nut Ⓒ, and adjust the belt deflection by turning the adjusting bolt Ⓓ.

Tightening torque
Ⓐ: 31—46 N·m (3.2—4.7 m-kg, 23—34 ft-lb)
Ⓑ: 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)
Ⓒ: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)



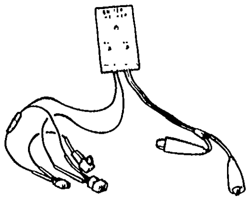
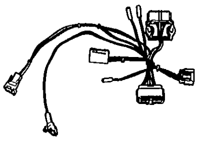
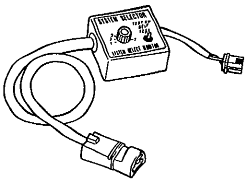
05U0BX-015

(3) A/C belt
If necessary, loosen the locknut and adjust the belt deflection by turning the adjusting bolt.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

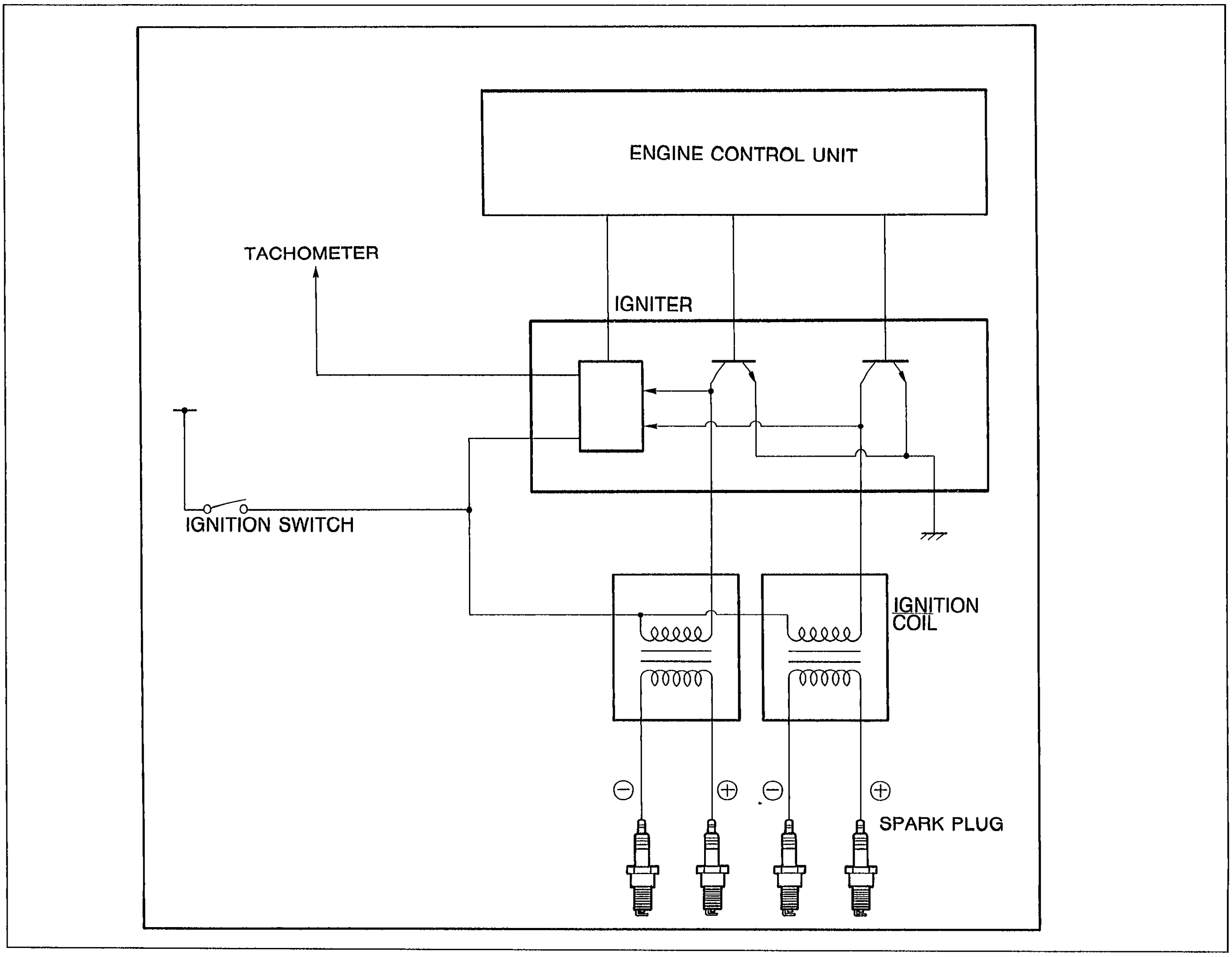
IGNITION SYSTEM

PREPARATION
SST

49 F018 002 Igniter checker 	For inspection of igniter	49 N018 001 Adapter harness 	For inspection of igniter
49 B019 9A0 System selector 	For inspection of ignition timing		

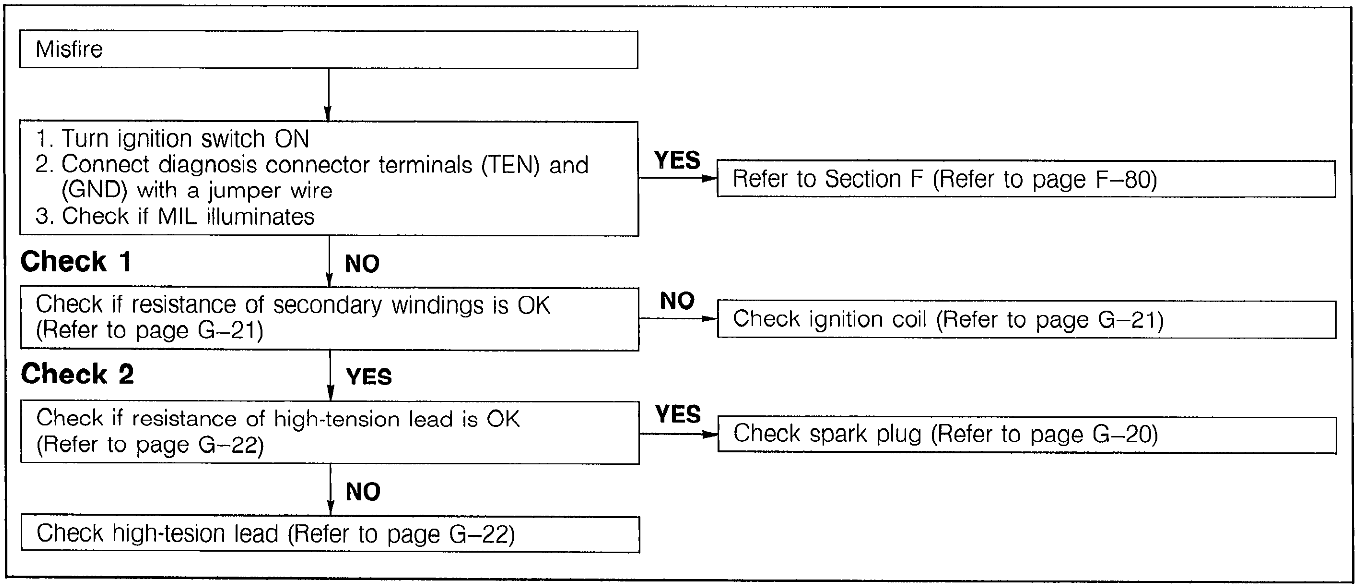
05U0GX-035

CIRCUIT DIAGRAM


ENGINE CONTROL UNIT
TACHOMETER
IGNITER
IGNITION SWITCH
IGNITION COIL
⊖
⊕
⊖
⊕
SPARK PLUG

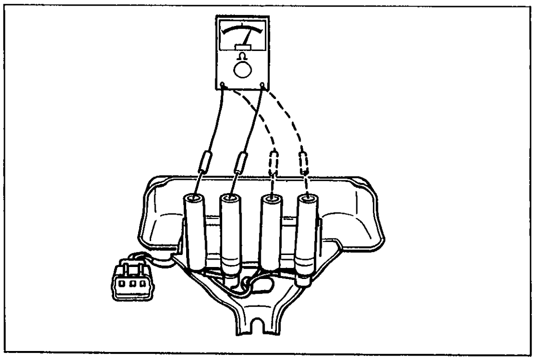
05U0GX-036

TROUBLESHOOTING

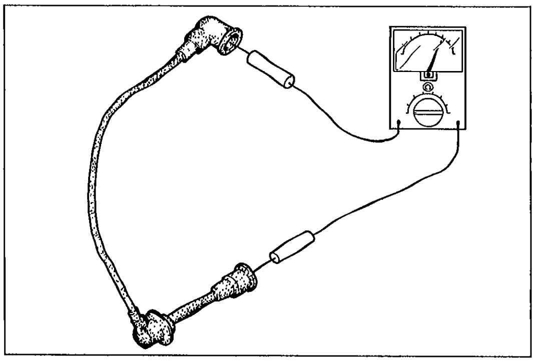

Misfire
1. Turn ignition switch ON
2. Connect diagnosis connector terminals (TEN) and (GND) with a jumper wire
3. Check if MIL illuminates
YES
Refer to Section F (Refer to page F–80)
Check 1
NO
Check if resistance of secondary windings is OK (Refer to page G–21)
NO
Check ignition coil (Refer to page G–21)
Check 2
YES
Check if resistance of high-tension lead is OK (Refer to page G–22)
YES
Check spark plug (Refer to page G–20)
NO
Check high-tesion lead (Refer to page G–22)

05U0GX-037

Check 1

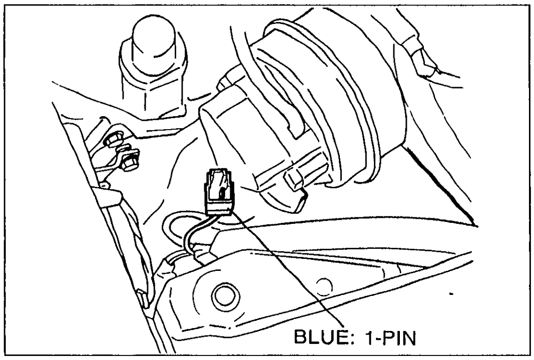


Check 2



IGNITION TIMING

1. Check the condition of the engine (spark plugs, leaks in hoses, etc.).
2. Verify that all accessories are OFF.
3. Warm up the engine to the normal operating temperature.



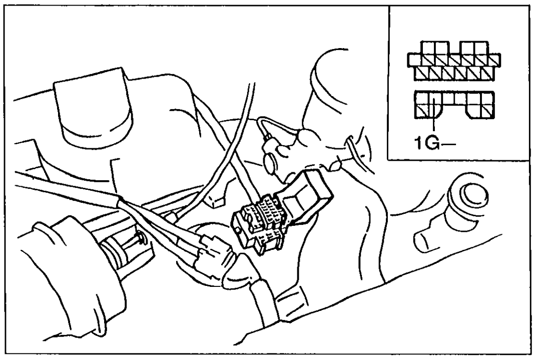
05U0GX-038

Note

- **When using an externally powered timing light and/or tachometer connect it to the power connector (Blue: 1-pin).**

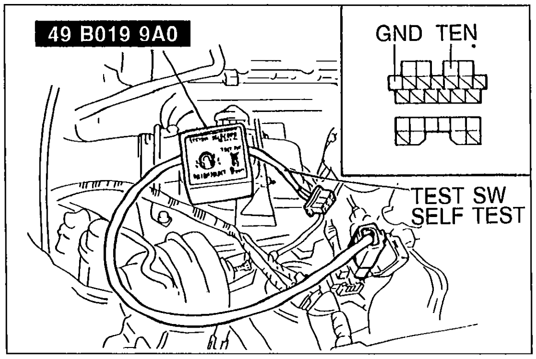
Warning

- **Do not ground the power connector terminal (Blue: 1-pin); the wiper 20A fuse will be burned.**



05U0GX-039

4. Connect a timing light and tachometer to the diagnosis connector terminal (IG–).



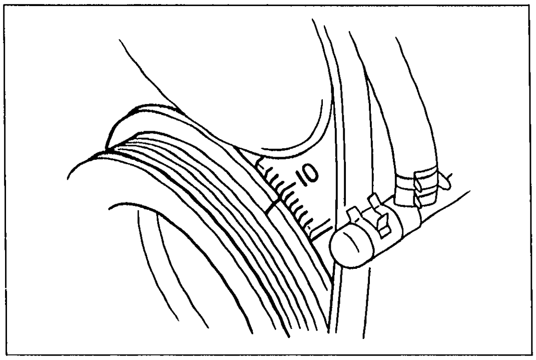
05U0GX-040

Caution

- **Be extremely careful when making connections to the diagnosis connector as a mistaken connection will cause a malfunction.**

5. Connect the **SST** and set TEST SW to "SELF TEST" or connect diagnosis connector terminals (TEN) and (GND) with a jumper wire.
6. Check the idle speed, and set it to specification if necessary.

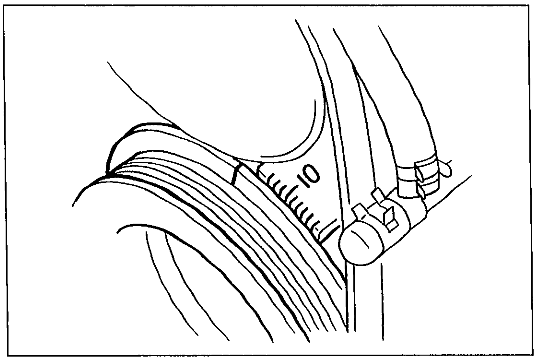
Idle speed: 850 ± 50 rpm



05U0GX-041

7. Check if the timing mark (Yellow) on the crankshaft pulley and the timing belt cover are aligned.

Ignition timing: 10° ± 1° BTDC (at idle)

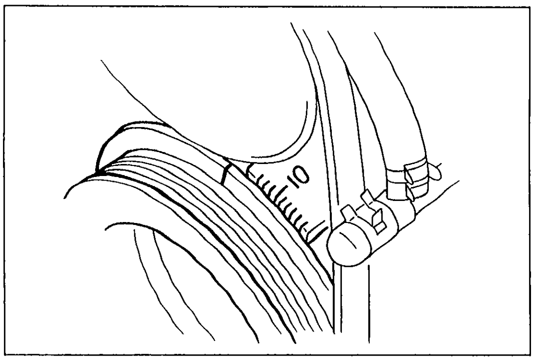


05U0GX-042

8. If the marks are not aligned, loosen the crank angle sensor lock bolt, and turn the crank angle sensor to make the adjustment.
9. Tighten the crank angle sensor lock bolt to the specified torque.

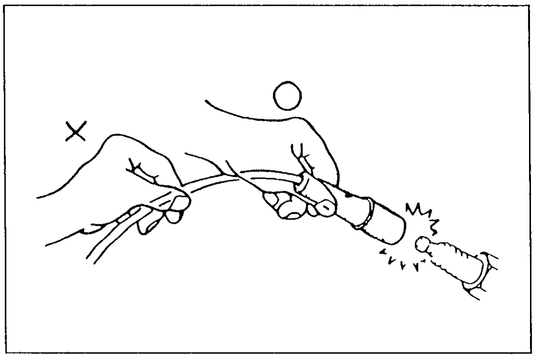
Tightening torque:
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

10. After adjusting the ignition timing, disconnect the jumper wire or **SST** from the diagnosis connector.



05U0GX-043

11. Increase the engine speed and verify that the ignition timing advances.



05U0GX-044

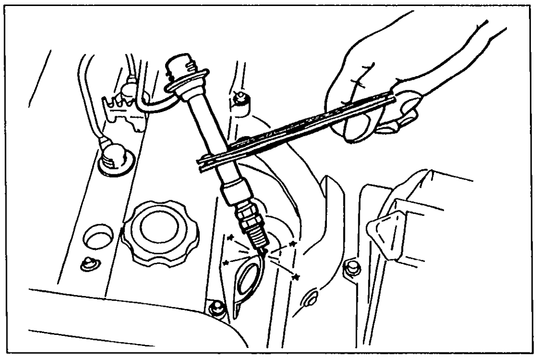
SPARK PLUG

Removal / Installaion

Note the following points:

1. When the high-tension lead is to be pulled off, be sure to pull on the boot, not the wire.
2. Apply anti-seize compound or molybdenum-based lubricant to the spark plug threads before installing.
3. Tighten the spark plugs to the specified torque.

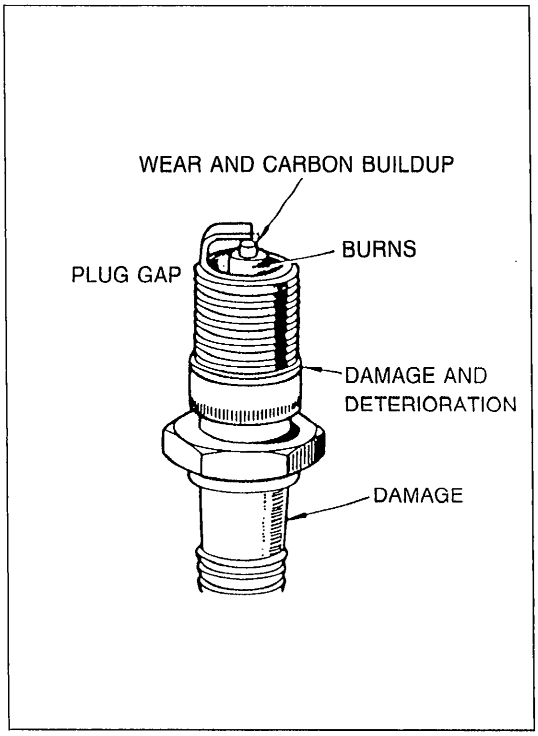
Tightening torque:
15—23 N·m (1.5—2.3 m-kg, 11—17 ft-lb)



05U0GX-045

Spark Test

1. Disconnect the high-tension lead from the spark plug.
2. Connect a new spark plug to the high-tension lead.
3. Hold with insulated pliers **approx. 5—10mm (0.20—0.39 in)** from a ground.
4. Crank the engine and verify that a strong blue spark is visible.



05U0GX-046

Inspection

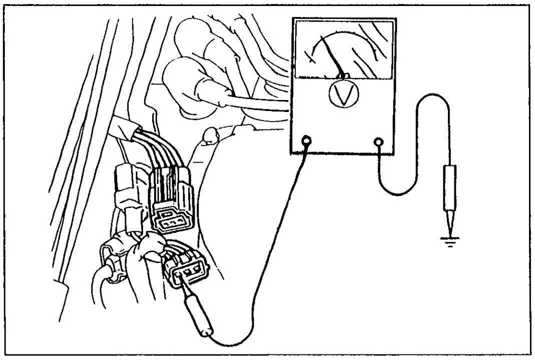
Check the following and replace the spark plugs as necessary.

1. Damaged insulation.
2. Worn electrodes.
3. Carbon deposits.
   If cleaning is necessary, use a plug cleaner or a wire brush. Wipe upper insulator.
4. Damaged gasket.

Plug gap: 1.0—1.1mm (0.039—0.043 in)

IGNITION COIL

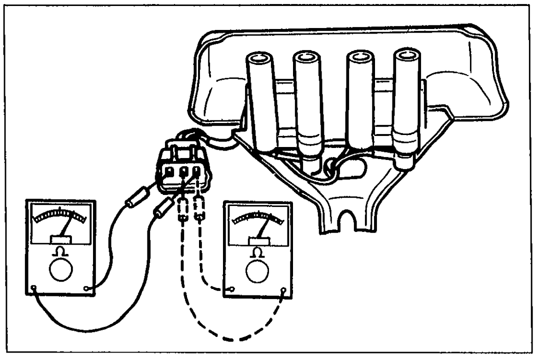
Inspection


05U0GX-047

1. Disconnect the ignition coil connector.
2. Check for voltage at the positive (+) terminal of the ignition coil connector with the ignition switch in the ON position.

Voltage: Approx. 12V

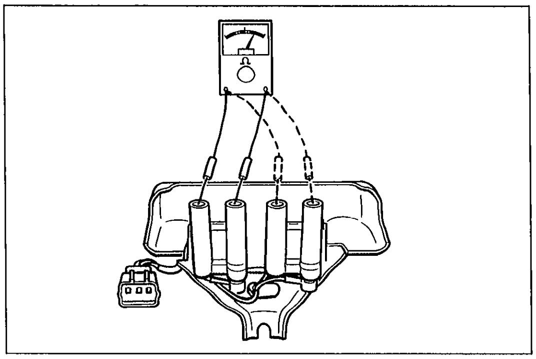
3. If there is no voltage check the main fuse, ignition switch, and wire harness.


05U0GX-048

Primary coil winding

Measure resistance of the primary coil winding of each coil with an ohmmeter.
If not within specification, replace the coil.

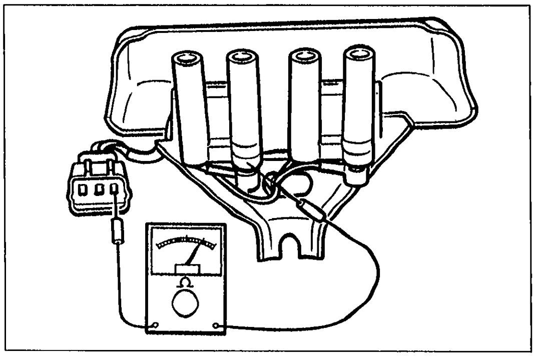
Primary coil winding resistance (at 20°C [68°F]): 0.78—0.94Ω


05U0GX-049

Secondary coil winding

Measure resistance of the secondary coil winding of each coil with an ohmmeter.
If not within specification, replace the coil.

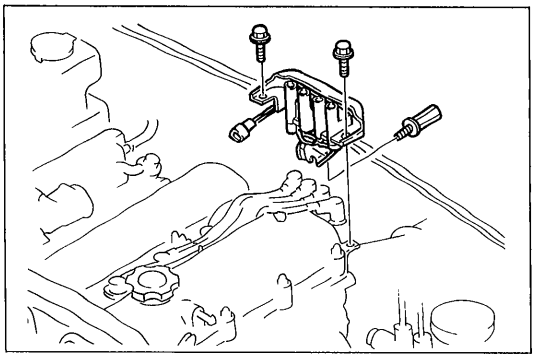
Secondary coil winding resistance (at 20°C [68°F]): 11.2—15.2 kΩ


05U0GX-050

Installation of Case

Use a **500V megger** tester to measure the insulation resistance between the primary terminal and the coil case.

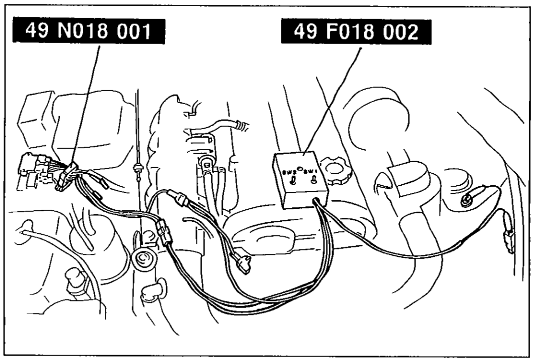
Resistance : 10 MΩ min.


05U0GX-051

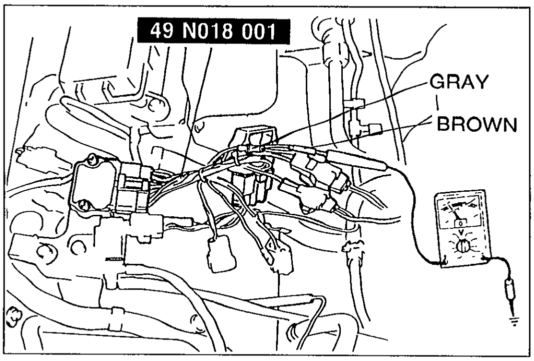
Replacement

1. Disconnect the high tension-leads and ignition coil connector.
2. Remove the installaition bolts and the ignition coil.
3. Install in the reverse order of removal.

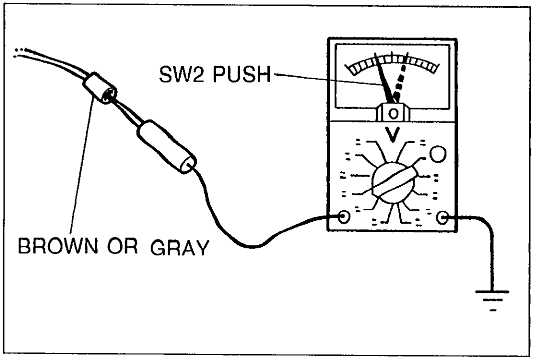
Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)



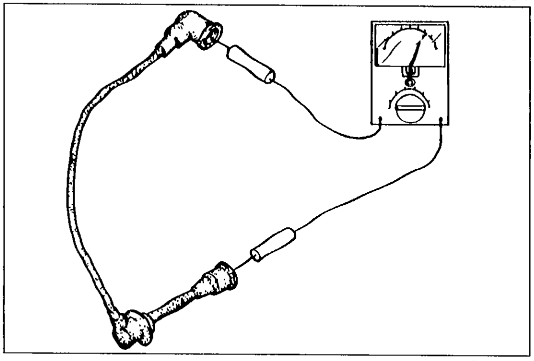
05U0GX-052



05U0GX-053



05U0GX-054



05U0GX-055

IGNITER

Inspection

1. Disconnect the igniter connector.

Warning

- **Do not ground the power connector terminal (Blue: 1-pin), the wiper 20A fuse will be burned.**

2. Connect the **SST** between the igniter and igniter connector as shown.
3. Connect the **SST** to the power connector (Blue: 1-pin).
4. Connect a voltmeter between the **SST** (brown wire) and a ground.
5. Turn the ignition switch ON.
6. Verify that there is **approx. 12V** at the terminal. If not as specified, check related wiring.

Caution

- **Do not activate the SW2 switch for more than 1 sec.**

7. Push the **SW2** switch on the **SST** while observing the ohmmeter.
8. Verify that the voltmeter indicates **approx. 8V**.
9. If not as specified, replace the igniter.
10. Disconnect the voltmeter from the brown wire and connect it to the **SST** gray wire.
11. Repeat Steps 5 through 9.

HIGH-TENSION LEAD

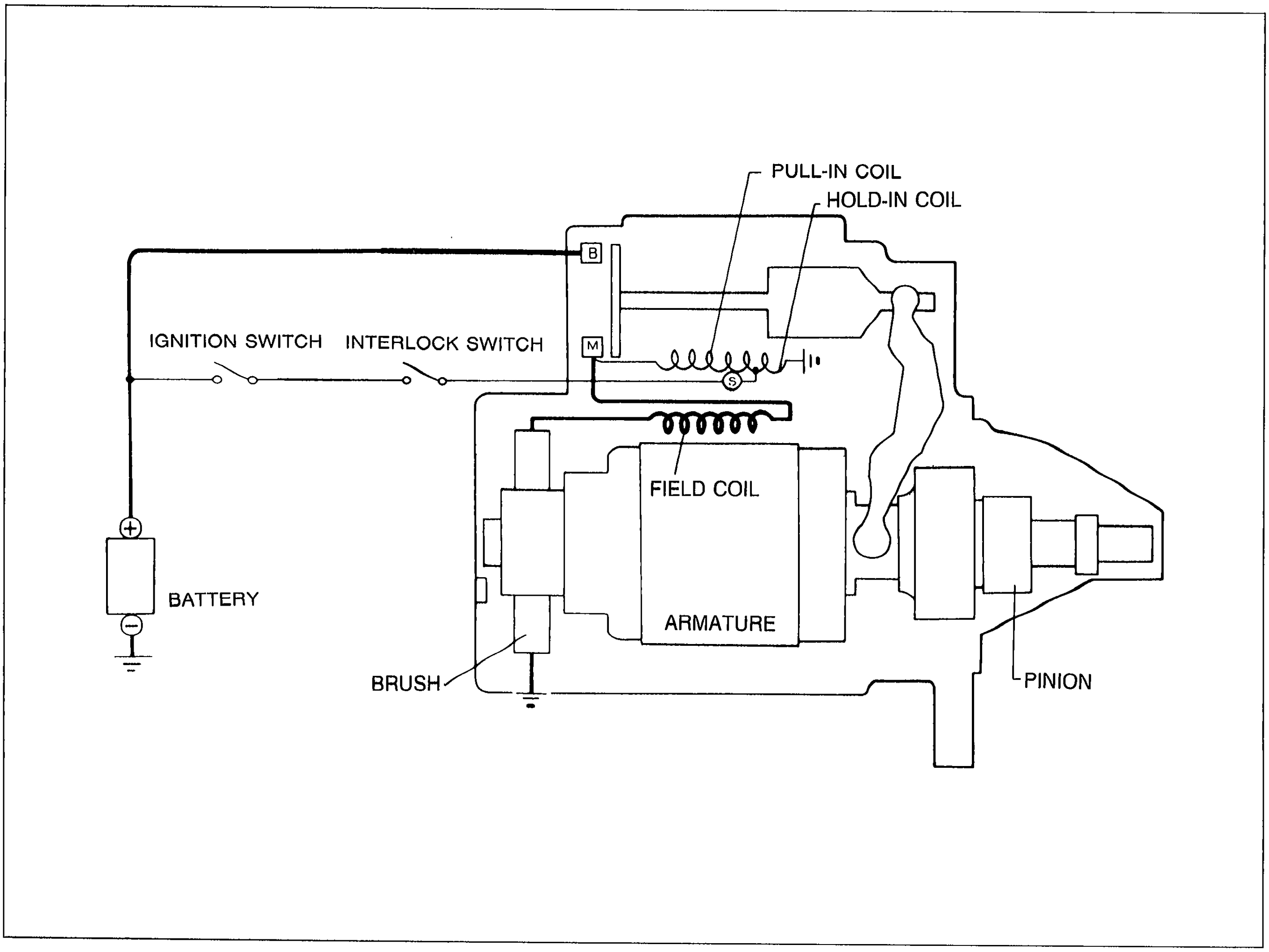
Inspection

Use an ohmmeter to measure the resistance of each lead.

Resistance: 16 kΩ per 1 m (3.28 ft)

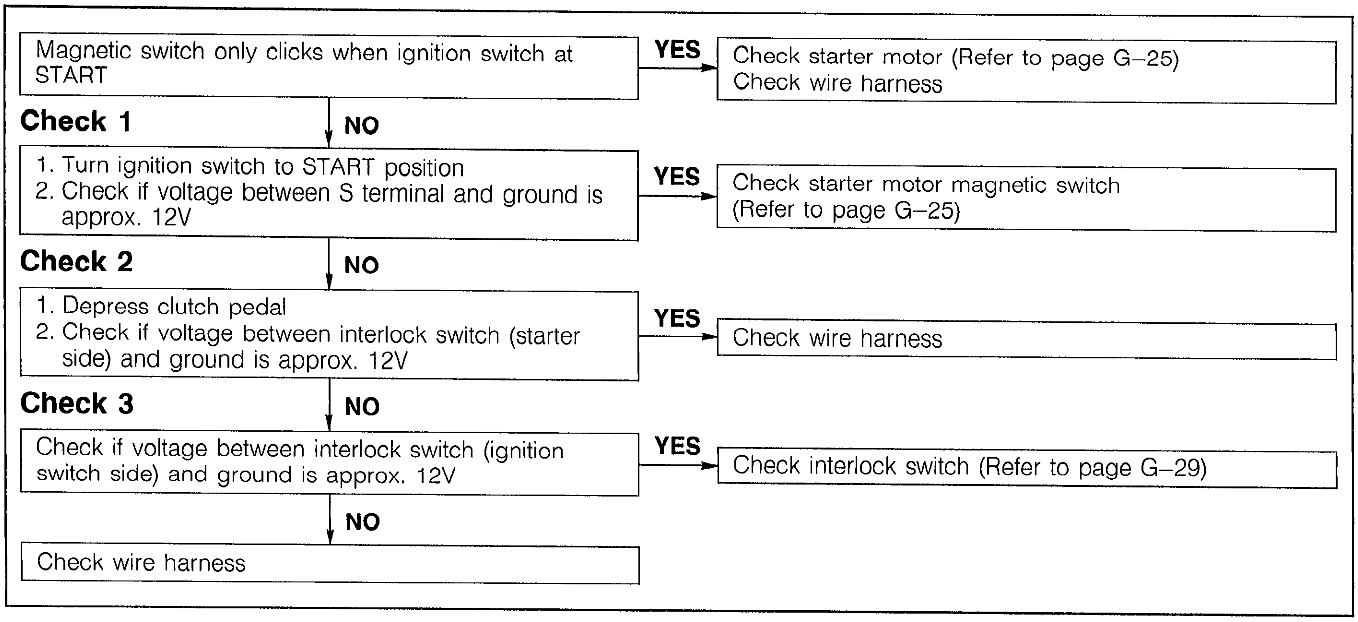
STARTING SYSTEM

CIRCUIT DIAGRAM


PULL-IN COIL
HOLD-IN COIL
B
M
S
IGNITION SWITCH
INTERLOCK SWITCH
FIELD COIL
BATTERY
ARMATURE
BRUSH
PINION

05U0GX-056

TROUBLESHOOTING



Magnetic switch only clicks when ignition switch at START

YES → Check starter motor (Refer to page G–25)
Check wire harness

NO ↓

Check 1

1. Turn ignition switch to START position
2. Check if voltage between S terminal and ground is approx. 12V

YES → Check starter motor magnetic switch (Refer to page G–25)

NO ↓

Check 2

1. Depress clutch pedal
2. Check if voltage between interlock switch (starter side) and ground is approx. 12V

YES → Check wire harness

NO ↓

Check 3

Check if voltage between interlock switch (ignition switch side) and ground is approx. 12V

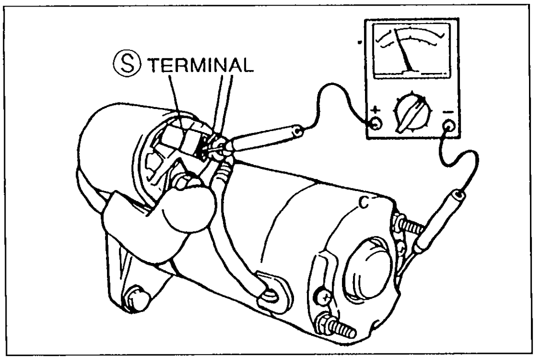
YES → Check interlock switch (Refer to page G–29)

NO ↓

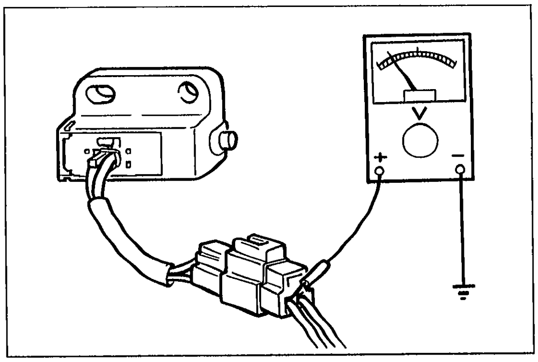
Check wire harness

05U0GX-057

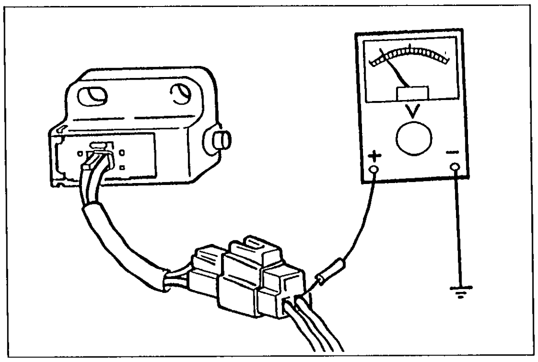
Check 1

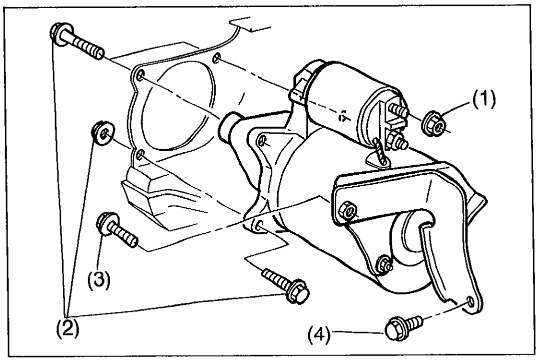


Check 2



Check 3





05U0GX-058

STARTER

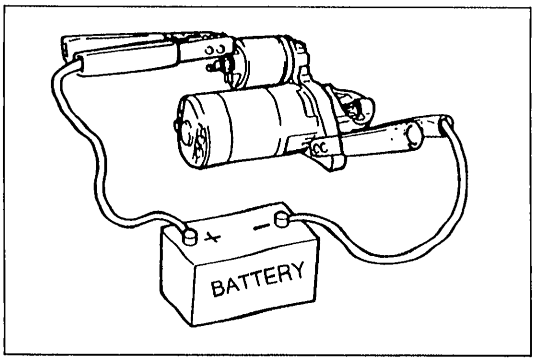
Caution

- **Obtain the code number and deactivate the autio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

Removal / Installation

1. Disconnect the negative battery cable.
2. Disconnect the wiring from the starter.
3. Remove the starter bracket.
4. Raise the front of the vehicle and support it with safety stands.
5. Remove the bolts and the starter.
6. Install in the reverse order of removal.

Tightening torque:
Nut (1)
10—12 N·m (105—120 cm-kg, 91—104 in-lb)
Bolt, Nut (2)
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)
Bolt (3) 16—23 N·m (1.6—2.3 m-kg, 5.0—7.2 ft-lb)
Bolt (4) 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

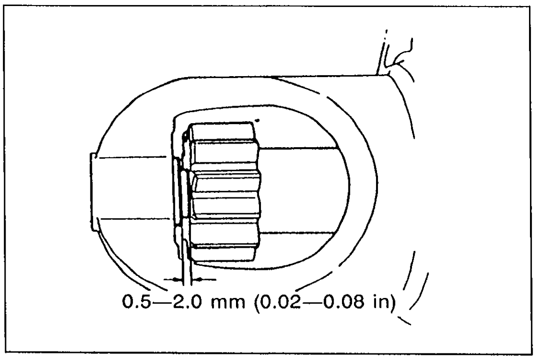


05U0GX-059

Performance Inspection

Pull-out test

Verify that the pinion is pulled out with 12V connected to the S terminal and the starter body grounded.



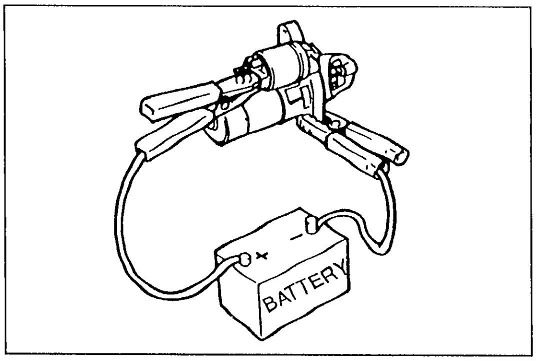
05U0GX-060

Pinion gap check

Measure the pinion gap while the pinion is pulled out.

Specification: 0.5—2.0mm (0.02—0.08 in)

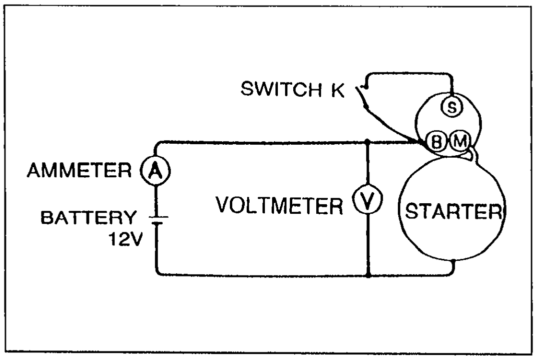
Adjust the pinion gap with an adjustment washer (between drive housing front cover and magnetic switch) if it is not within specification.



05U0GX-061

Return test

1. Disconnect the motor wire from the M terminal.
2. Connect 12V to the M terminal and ground to the body.
3. Pull out the overrunning clutch with a screwdriver. Verify that it returns to its original position when released.



05U0GX-062

No-load test

1. After adjusting the pinion gap, form a test circuit with a voltmeter and an ammeter.

Note

- **Use heavy gauge wires and tighten each terminal fully.**

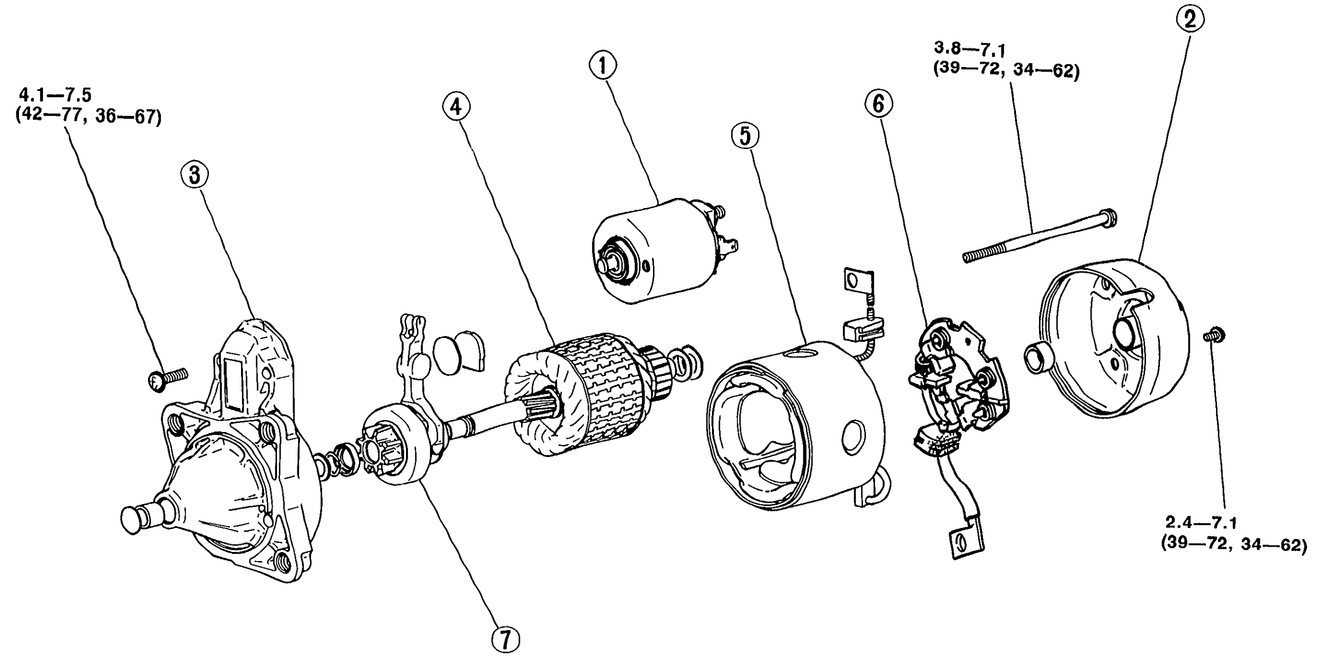
2. Close switch K to run the starter.
3. Check for the following:

Starter type	kW	0.95
Voltage	V	11.5
Current	A	Max. 60
Gear shaft speed	rpm	Min. 6,600

4. If not as specified, check for the cause by referring to Inspection.

Disassembly / Assembly

1. Disassemble in the order shown in the figure.
2. Inspect and repair or replace parts as necessary.
3. Assemble in the reverse order of diassembly.

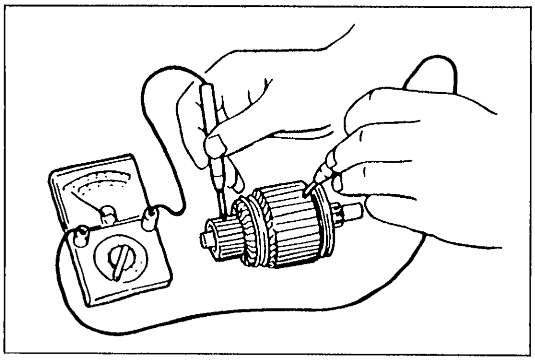

4.1—7.5
(42—77, 36—67)
③
④
①
⑤
⑥
3.8—7.1
(39—72, 34—62)
②
2.4—7.1
(39—72, 34—62)
⑦
N·m (cm-kg, in-lb)

05U0GX-063

1. Magnetic switch
   Inspection.................................. page G–28
2. Rear housing
3. Front cover
4. Armature
   Inspection.................................. page G–27
5. Yoke assembly
   Inspection.................................. page G–28
6. Brush holder assembly
   Inspection.................................. page G–28
7. Drive pinion

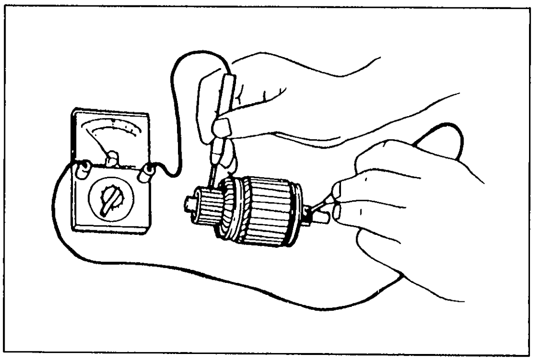
Inspection

Armature



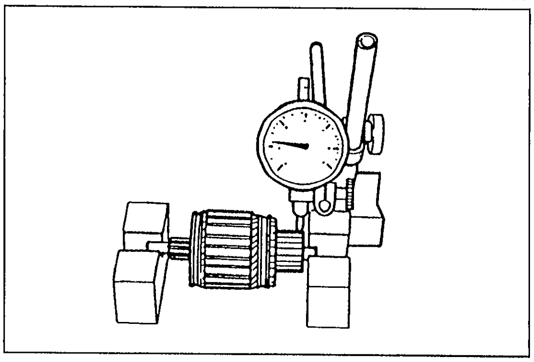
05U0GX-064

1. Ground of armature coil
   Check for no continuity between the commutator and the core with an ohmmeter. Check the entire circum ferance of the commutator. Replace the armature if there is continuity.



05U0GX-065

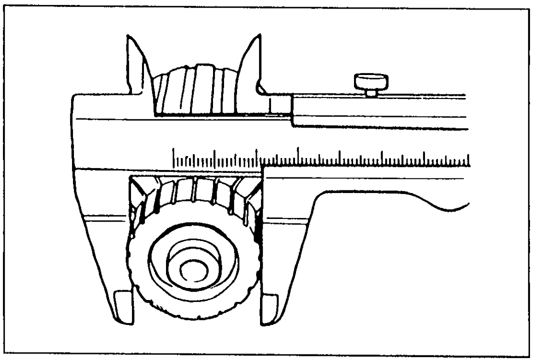
2. Insulation of armature coil
   Check for no continuity between the commutator and the shaft with an ohmmeter. Check the entire circum ferance of the commutator. Replace the armature if there is continuity.



05U0GX-066

3. Runout of commutator
   (1) Place the armature on V blocks, and measure the runout with a dial gauge.
   (2) Repair with a lathe if the runout is small or replace the armature if necesary.

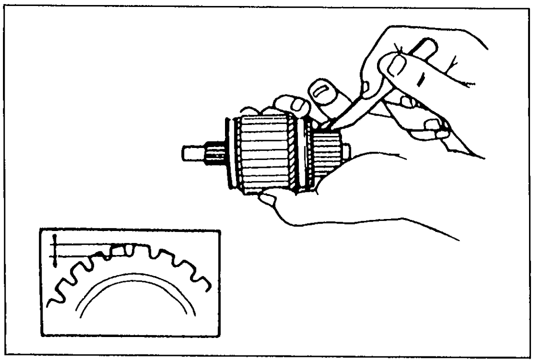
   Runout: 0.03mm (0.001 in)



05U0GX-067

4. Outer diameter of commutator
   Replace the armature if the outer diameter of the commutator is at the grind limit or less.
5. Roughness of commutator surface
   If the commutator surface is dirty, wipe it with a cloth; if it is rough, repair it with a lathe or fine sandpaper.

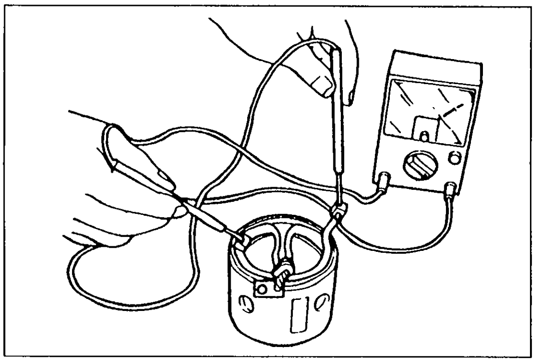
   Grind limit: 30.8mm (1.21 in)



05U0GX-068

6. Segment groove depth
   If the depth of the molding between segments is at the depth limit or less, undercut the grooves to the standard depth.

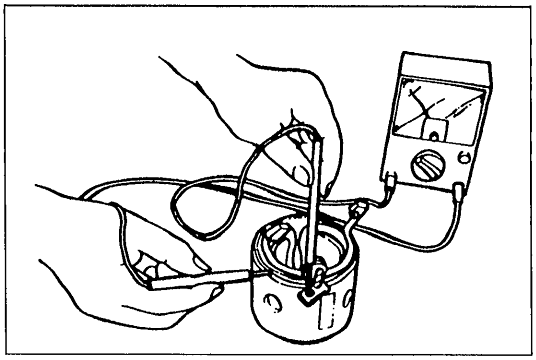
   Standard depth: 0.5—0.8mm (0.020—0.031 in)
   Depth limit: 0.2mm (0.008 in)



05U0GX-069

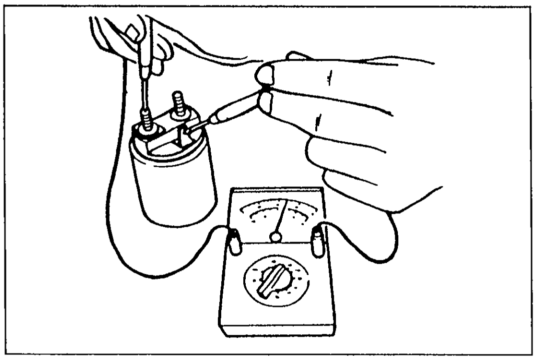
Yoke assembly

1. Wiring damage of field coil
   (1) Check for continuity between the connector and the brushes with an ohmmeter.
   (2) Replace the yoke assembly if there is no continuity.



05U0GX-070

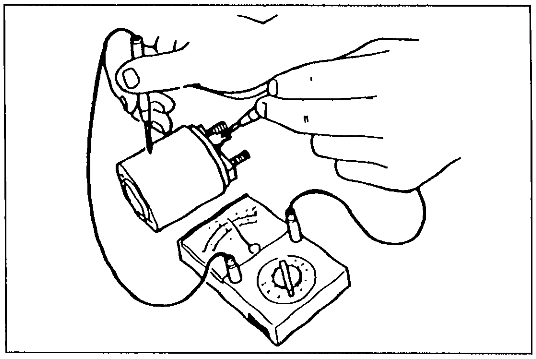
2. Ground of field coil
   (1) Check for no continuity between the connector and the yoke with an ohmmeter.
   (2) Repair or replace the yoke assembly if there is continuity.
3. Installation of field coil
   Replace the yoke assembly if the field coil is loose.



05U0GX-071

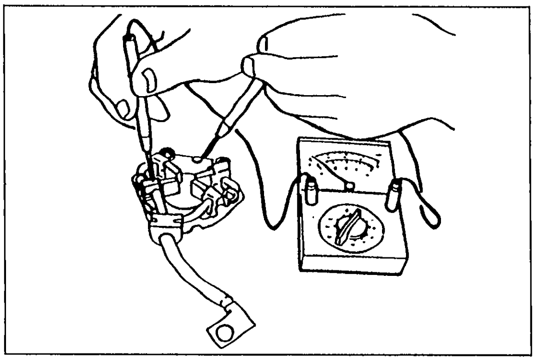
Magnetic Switch

1. Wiring damage (S terminal — M terminal)
   Check for continuity between terminal S and terminal M with an ohmmeter. Replace the magnetic switch if there is no continuity.



05U0GX-072

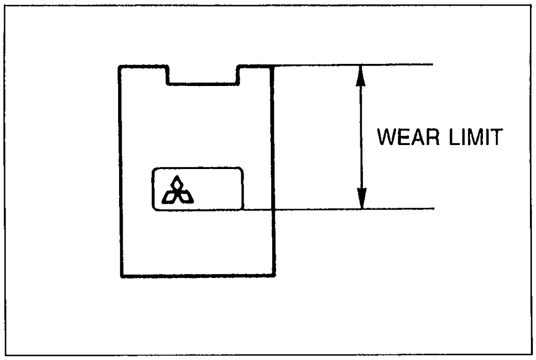
2. Wiring damage (S terminal — body)
   Check for continuity between terminal S and the body with an ohmmeter.
   Replace the magnetic switch if there is no continuity.



05U0GX-073

Brush and Brush Holder
Insulation of brush holder

Check for no continuity between each insulated brush and the plate with an ohmmeter. Replace the brush holder if there is continuity.



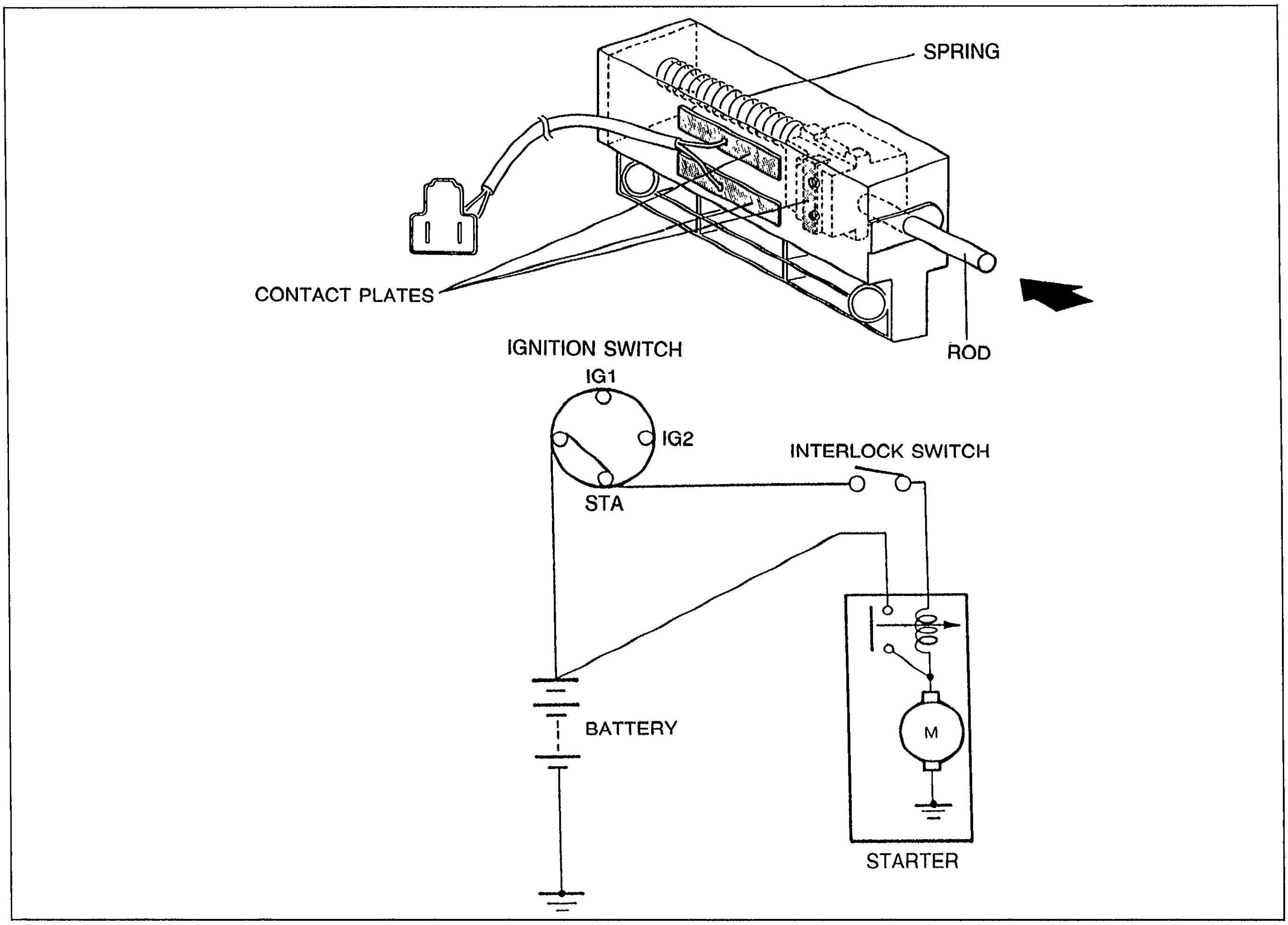
05U0GX-077

Brush

If the brushes are worn beyond the wear limit or if the wear is near the limit, replace the brushes.

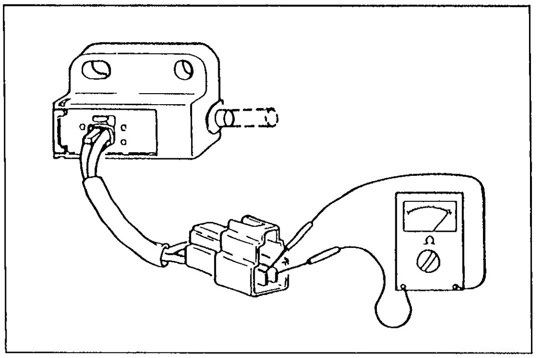
Standard: 17mm (0.67 in)
Wear limit: 11.5mm (0.45 in)

STARTER INTERLOCK SWITCH


SPRING
CONTACT PLATES
ROD
IGNITION SWITCH
IG1
IG2
STA
INTERLOCK SWITCH
BATTERY
M
STARTER

05U0GX-074

The clutch pedal must be depressed during starting for battery power to be supplied to the starter.



05U0GX-075

Inspection

1. Disconnect the interlock switch connector.
2. Check continuity of the switch with an ohmmeter.

Pedal	Continuity
Depressed	Yes
Released	No

4. If not as specified, replace the interlock switch.

CLUTCH

INDEX .... H– 2
OUTLINE .... H– 3
  SPECIFICATIONS .... H– 3
TROUBLESHOOTING GUIDE .... H– 3
CLUTCH FLUID .... H– 4
  PREPARATION .... H– 4
  REPLACEMENT .... H– 4
CLUTCH PEDAL .... H– 5
  ADJUSTMENT .... H– 5
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CLUTCH MASTER CYLINDER .... H– 7
  PREPARATION .... H– 7
  REMOVAL / INSTALLATION .... H– 8
  AIR BLEEDING .... H– 9
  OVERHAUL H–10
CLUTCH RELEASE CYLINDER H–12
  PREPARATION H–12
  REMOVAL / INSTALLATION H–12
  AIR BLEEDING (REFER TO PAGE H–9.)
  OVERHAUL H–13
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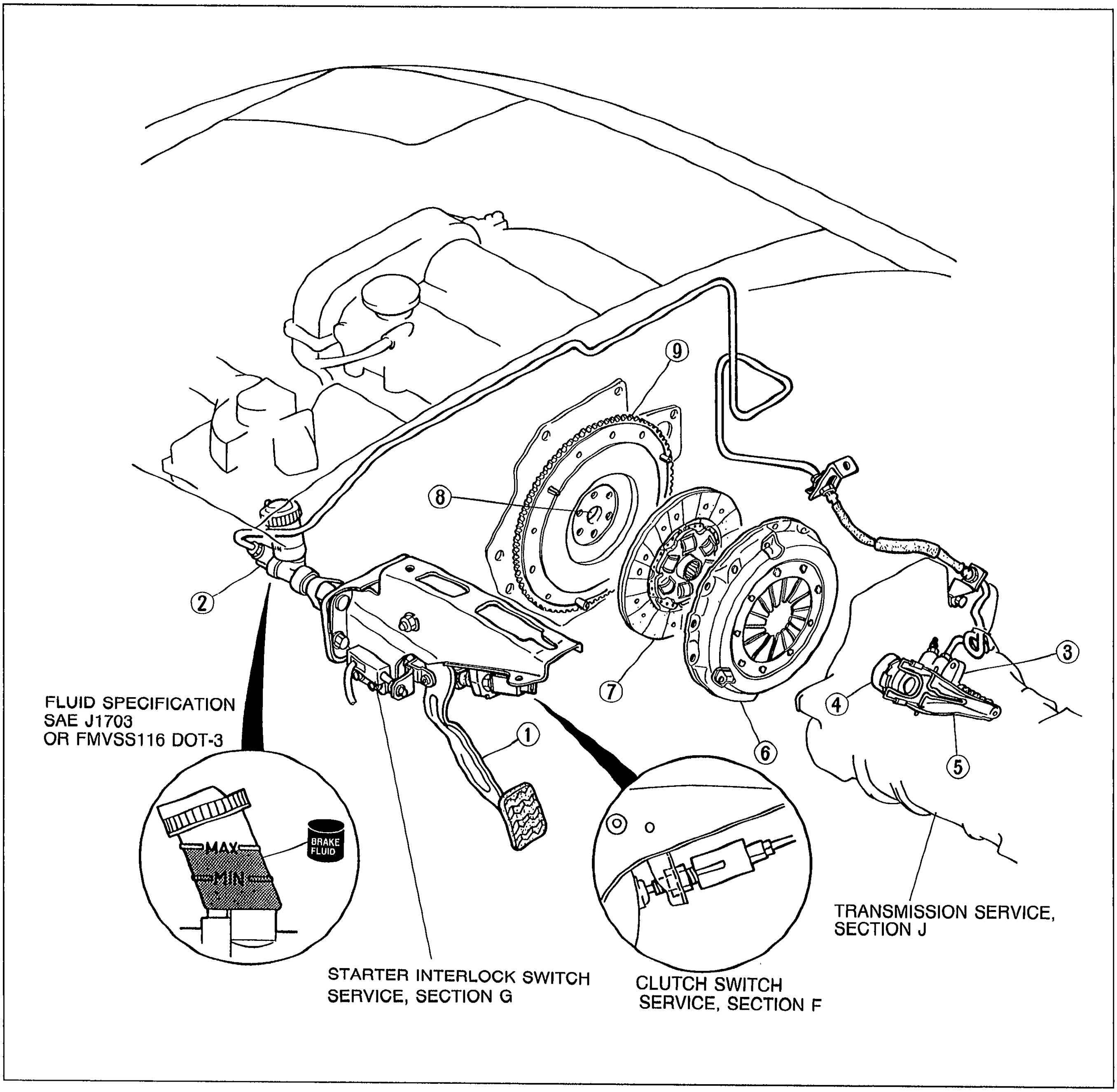
RELEASE BEARING H–17
  INSPECTION H–17
CLUTCH COVER H–17
  INSPECTION H–17
CLUTCH DISC H–17
  INSPECTION H–17
PILOT BEARING H–18
  INSPECTION H–18
FLYWHEEL H–18
  INSPECTION H–18

05U0HX-001

INDEX


⑨
⑧
②
⑦
⑥
③
④
⑤
①
FLUID SPECIFICATION
SAE J1703
OR FMVSS116 DOT-3
MAX
MIN
BRAKE FLUID
TRANSMISSION SERVICE, SECTION J
STARTER INTERLOCK SWITCH SERVICE, SECTION G
CLUTCH SWITCH SERVICE, SECTION F

05U0HX-002

1. Clutch pedal
    Adjustment....... page H- 5
    Removal / Inspection / Installation .... page H- 6
2. Clutch master cylinder
    Removal / Installation .... page H- 8
    Overhaul.......... page H-10
    Air bleeding..... page H- 9
3. Clutch release cylinder
    Removal / Installation .... page H-12
    Overhaul.......... page H-13
    Air bleeding..... page H- 9
4. Release bearing
    Removal / Installation .... page H-14
    Inspection........ page H-17
5. Release fork
    Removal / Installation .... page H-14
6. Clutch cover
    Removal / Installation .... page H-14
    Inspection........ page H-17
7. Clutch disc
    Removal / Installation .... page H-14
    Inspection........ page H-17
8. Pilot bearing
    Removal / Installation .... page H-14
    Inspection........ page H-18
9. Flywheel
    Removal / Installation .... page H-14
    Inspection........ page H-18

OUTLINE

SPECIFICATIONS

Item			Engine/Transmission Model: B6 DOHC M5M-D
Clutch control			Hydraulic
Clutch cover	Type		Diaphragm spring
	Set load N (kg, lb)		4,022 (410, 902)
Clutch disc	Outer diameter mm (in)		200 (7.87)
	Inner diameter mm (in)		130 (5.12)
	Thickness	Pressure plate side mm (in)	3.5 (0.14)
		Flywheel side mm (in)	3.5 (0.14)
Clutch pedal	Type		Suspended
	Pedal ratio		6.13
	Full stroke mm (in)		120 (4.72)
	Height mm (in)		175—185 (6.89—7.28)
Master cylinder inner diameter mm (in)			15.87 (0.625)
Release cylinder inner diameter mm (in)			19.05 (0.750)
Clutch fluid			SAE J1703 or FMVSS116 DOT-3

05U0HX-003

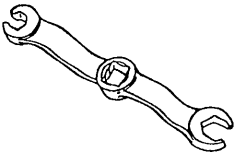
TROUBLESHOOTING GUIDE

Problem	Possible Cause	Action	Page
Slipping	Clutch disc facing worn excessively	Replace	H–14
	Clutch disc facing surface hardened or oil on surface	Repair or replace	H–14
	Pressure plate damaged	Repair or replace	H–14
	Diaphragm spring damaged or weak	Replace	H–14
	Insufficient clutch pedal play	Adjust	H– 5
	Clutch pedal sticking	Repair or replace	H– 6
	Flywheel damaged	Repair or replace	H–14
Faulty disengagement	Excessive runout or damaged clutch disc	Replace	H–14
	Clutch disc splines rusted or worn	Remove rust or replace	H–14
	Oil on facing	Repair or replace	—
	Diaphragm spring weak	Replace	H–14
	Excessive clutch pedal play	Adjust	H– 5
	Insufficient clutch fluid	Add fluid	H– 2
	Leakage of clutch fluid	Locate and repair or replace	—
Clutch vibrates when accelerating	Oil on facing	Repair or replace	H–14
	Torsion rubbers weak	Replace	H–14
	Clutch disc facing hardened or damaged	Repair or replace	H–14
	Clutch disc facing rivets loose	Replace	H–14
	Pressure plate damaged or excessive runout	Replace	H–14
	Flywheel surface hardened or damaged	Repair or replace	H–14
	Loose or worn engine mount	Tighten or replace	—
Clutch pedal sticking	Pedal shaft not properly lubricated	Lubricate or replace	H– 6
Abnormal noise	Clutch release bearing damaged	Replace	H–14
	Poor lubrication of release bearing sleeve	Lubricate or replace	H–14
	Torsion spring weak	Replace	H–14
	Excessive crankshat end play	Repair	Refer to Section B
	Pilot bearing worn or damaged	Replace	H–14
	Worn pivot points of release fork	Repair or replace	H–14

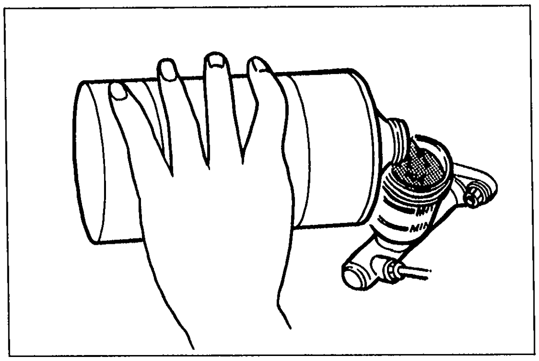
05U0HX-004

CLUTCH FLUID

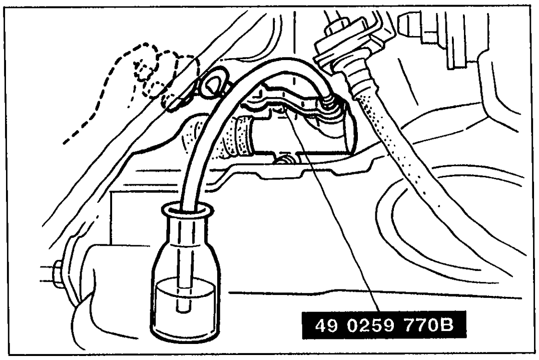
PREPARATION

49 0259 770B Wrench, flare nut 	For loosening and tightening bleeder screw

05U0HX-005



9MU0HX-006



9MU0HX-007

REPLACEMENT

Note

- **The fluid in the reserve tank must be maintained at the 3/4 level or higher during replacement.**

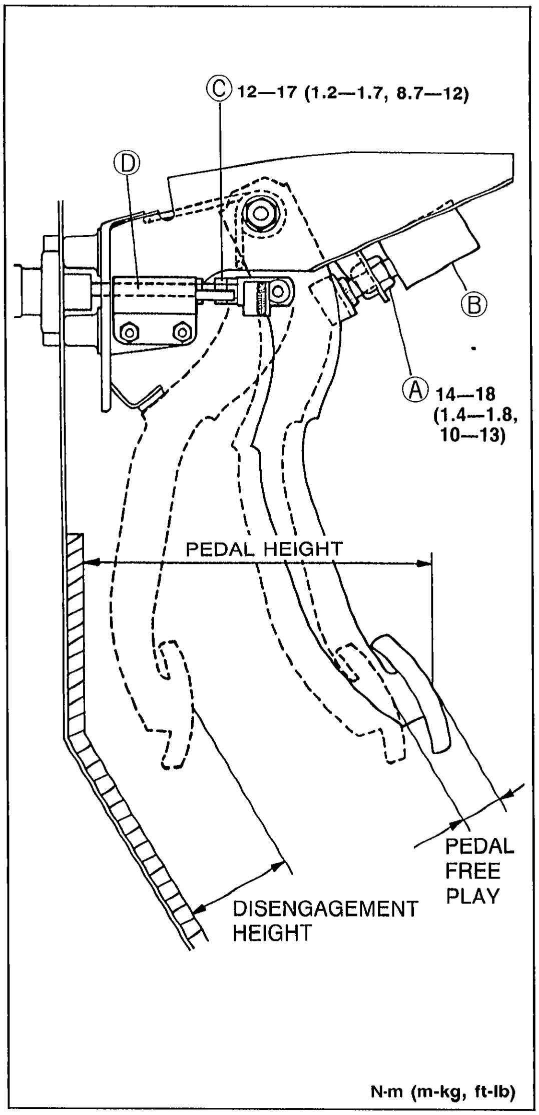
Caution

- **Be careful not to spill clutch fluid on a painted surface. If this should happen, wash it off immediately.**
- **Do not mix different brands of clutch fluid.**
- **Do not reuse the clutch fluid which was drained out.**

1. Draw the fluid from the reserve tank with a suction pump.
2. Remove the bleeder cap from the clutch release cylinder and attach a vinyl hose to the bleeder plug.
3. Place the other end of the vinyl hose in a container.
4. Slowly pump the clutch pedal several times.
5. With the clutch pedal depressed, loosen the bleeder screw with the **SST** to let fluid escape. Close the bleeder screw with the **SST**.
6. Repeat Steps 4 and 5 until only clean fluid is seen.
7. Tighten the bleeder screw.

Tightening torque:
5.9—8.8 N·m (60—90 cm-kg, 52—78 in-lb)

8. Add fluid to the MAX mark.
9. Check for correct clutch operation.



05U0HX-006

CLUTCH PEDAL

ADJUSTMENT

Clutch Pedal Height

Inspection

Measure the distance from the upper surface of the pedal pad to the carpet.

Pedal height: 175—185mm (6.89—7.28 in)
(With carpet)

If necessary, adjust the pedal height.

Adjustment

1. Loosen locknut Ⓐand turn clutch switch Ⓑuntil the height is correct.
2. Tighten locknut Ⓐ.

Tightening torque:
14—18 N·m (1.4—1.8 m-kg, 10—13 ft-lb)

3. After adjustment, inspect the pedal free play.

Clutch Pedal Free Play

Inspection

Depress the clutch pedal by hand until clutch resistance is felt.

Pedal free play: 0.6—3.1mm (0.02—0.12 in)
Total pedal free play: 5—13mm (0.20—0.51 in)

If necessary, adjust the pedal free play.

Adjustment

1. Loosen locknut Ⓒand turn push rod Ⓓuntil pedal free play is correct.
2. Verify that the disengagement height as measured from the upper surface of the pedal to the carpet is correct when the pedal is fully depressed.

Minimum disengagement height: 68mm (2.68 in)
(With carpet)

3. Tighten locknut Ⓒ.

Tightening torque:
12—17 N·m (1.2—1.7 m-kg, 8.7—12 ft-lb)

4. After adjustment, inspect the pedal height.

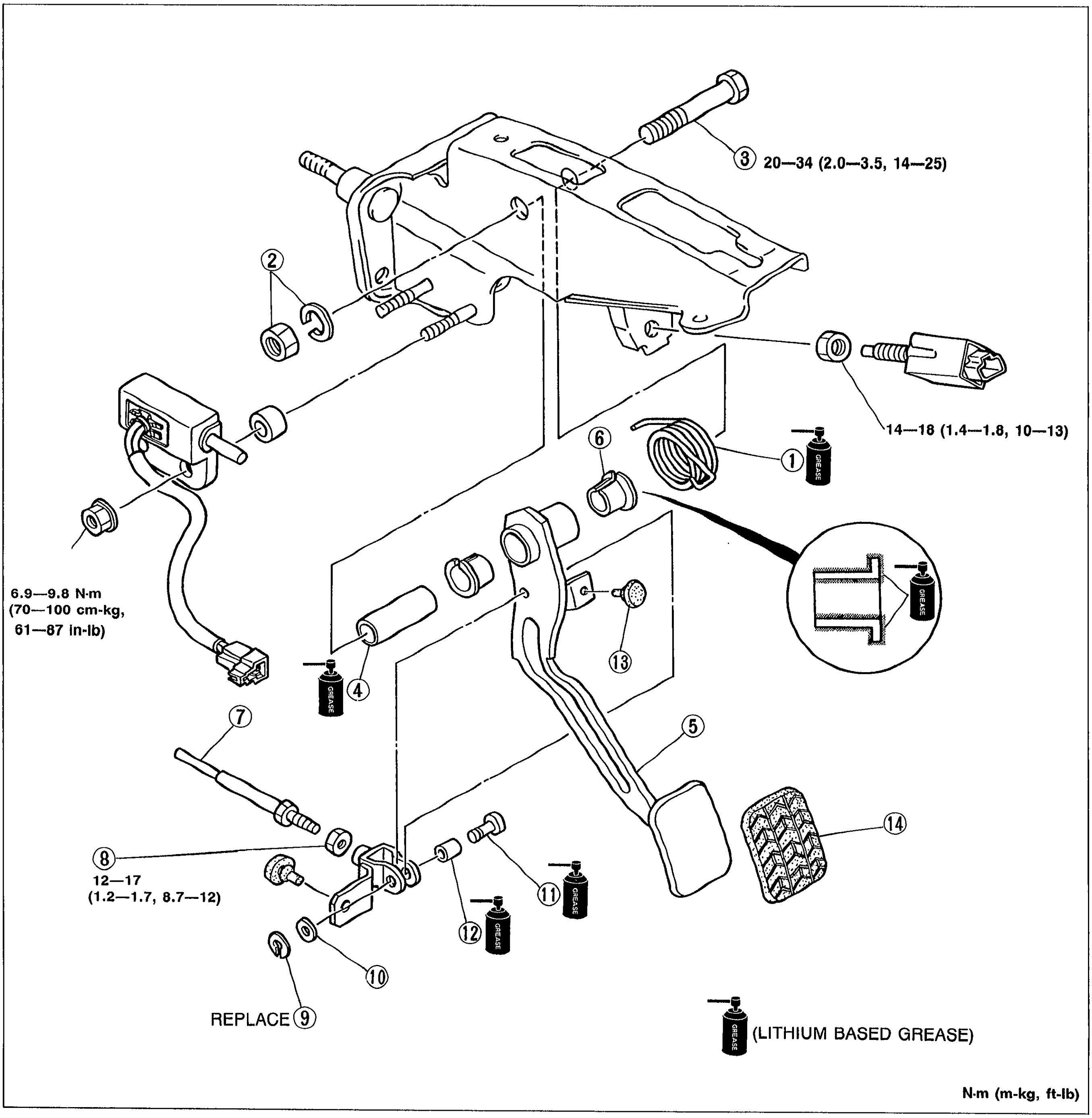
REMOVAL / INSPECTION / INSTALLATION

1. Remove in the order shown in the figure, referring to **Removal Note**.
2. Inspect all parts and repair or replace as necessary.

Note

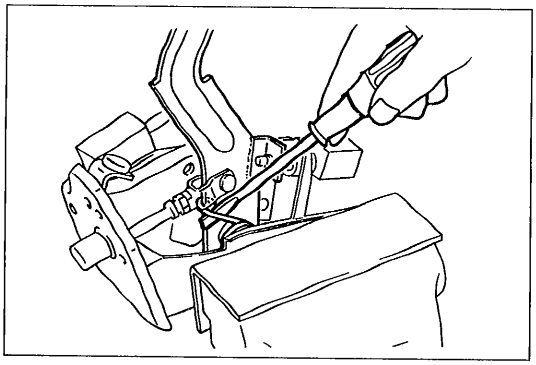
- **Apply lithium based grease to the bushings and pin when installing.**

3. Install in the reverse order of removal, referring to **Installation Note**.


③ 20—34 (2.0—3.5, 14—25)
②
14—18 (1.4—1.8, 10—13)
⑥
①
GREASE
6.9—9.8 N·m
(70—100 cm-kg,
61—87 in-lb)
⑬
④
⑦
⑤
⑭
⑧
12—17
(1.2—1.7, 8.7—12)
⑪
⑫
⑩
REPLACE ⑨
(LITHIUM BASED GREASE)
N·m (m-kg, ft-lb)

05U0HX-007

1. Spring
    - Removal Note.... page H–7
    - Installation Note. page H–7
2. Nut and lock washer
3. Bolt
4. Spacer
5. Clutch pedal
6. Bushings
7. Push rod
    - Inspect for damage and bending
8. Nut
9. Clip
10. Wave washer
11. Pin
12. Spacer
13. Stop
14. Pedal pad

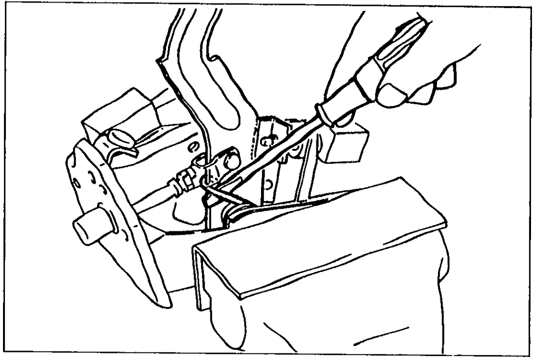


05U0HX-008

Removal Note
Spring

Note
- **Use pads in the vise to prevent damaging the clutch master cylinder bracket.**

1. Place the clutch pedal assembly in the vise.
2. Pry the spring off the clutch pedal as shown in the figure.



05U0HX-009

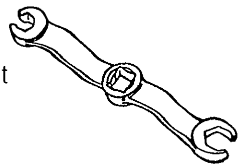
Installation Note
Spring

Note
- **Use pads in the vise to prevent damaging the clutch master cylinder bracket.**

1. Place the clutch pedal assembly in the vise.
2. Pry the spring on the clutch pedal as shown in the figure.
3. Adjust the clutch pedal height and free play after installation. (Refer to page H–5.)

CLUTCH MASTER CYLINDER

PREPARATION
SST

49 0259 770B Wrench, flare nut 	For disconnecting and connecting clutch pipe

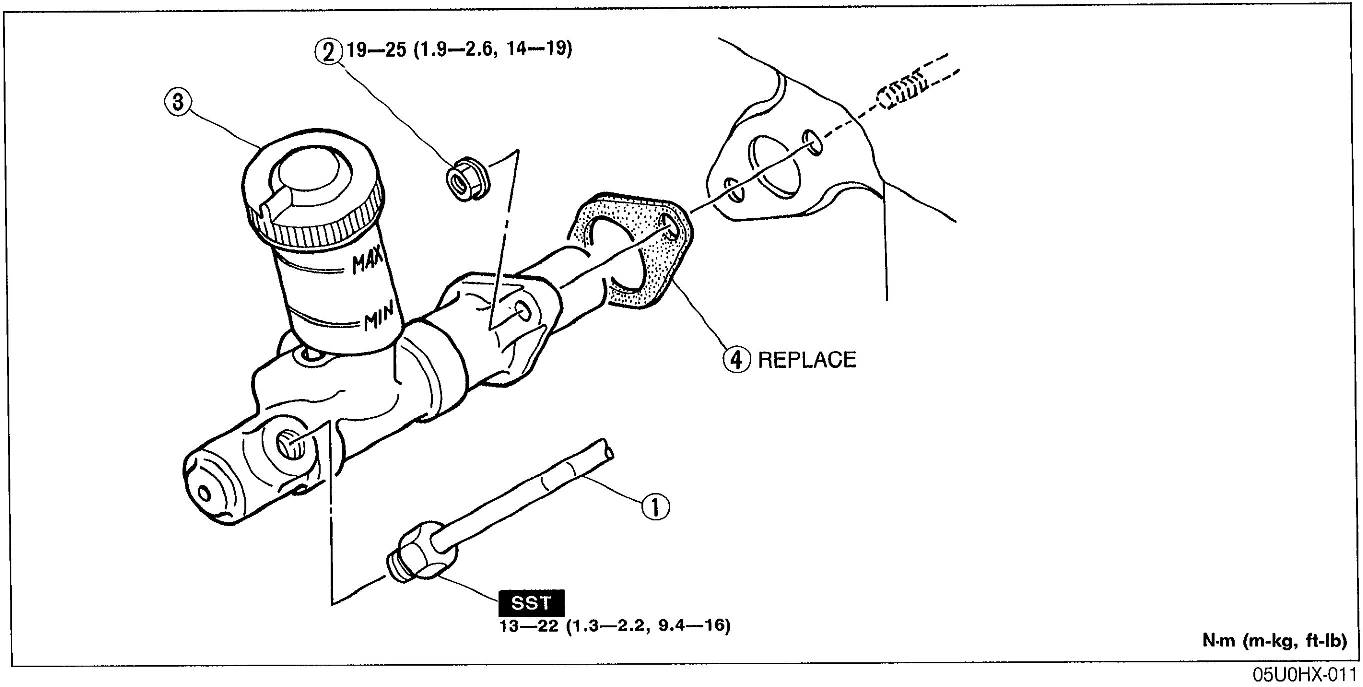
05U0HX-010

REMOVAL / INSTALLATION

Caution

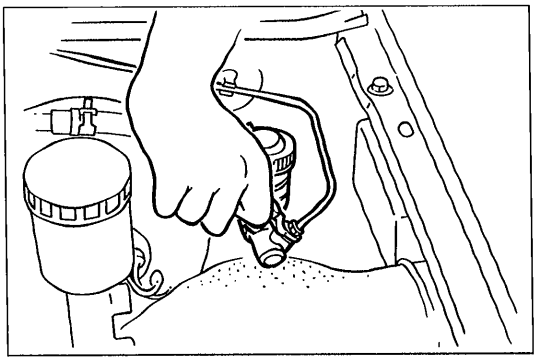
- **Clutch fluid will damage painted surfaces. Be sure to use a container or rags to collect it. If fluid does get on a painted surface, wipe it off immediately with a rag.**

1. Remove in the order shown in the figure, referring to **Removal Note**.
2. Install in the reverse order of removal, referring to **Installation Note**.



05U0HX-011

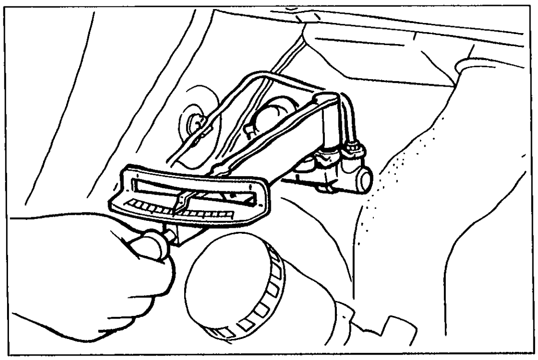
1. Clutch pipe
   Removal Note.. page H– 8
   Installation Note page H– 8
2. Nut
3. Clutch master cylinder
   Check for fluid leakage from cylinder bore
   Overhaul.......... page H–10
   Air bleeding .... page H– 9
4. Gasket



9MU0HX-013

Removal Note
Clutch pipe

Disconnect the clutch pipe with the **SST**.



05U0HX-012

Installation Note
Clutch pipe

Tighten the clutch pipe with the **SST**.

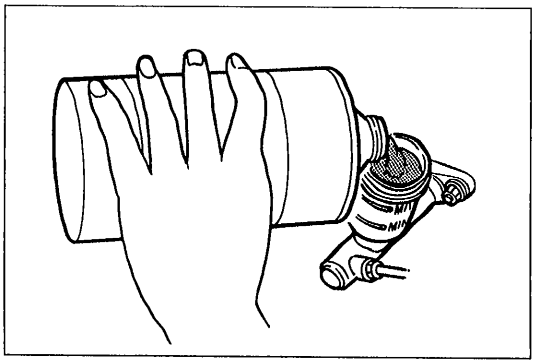
Tightening torque:
13—22 N·m (1.3—2.2 m-kg, 9.4—16 ft-lb)

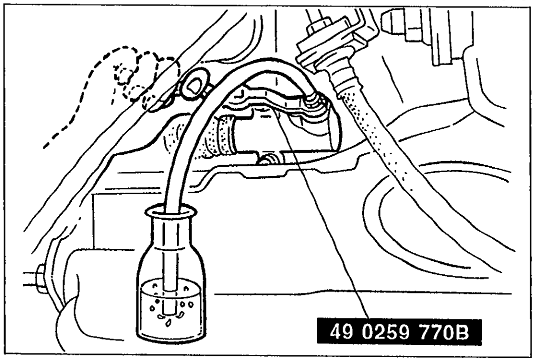
Air Bleeding

After installation, bleed the clutch system. (Refer to page H–9.)

Inspection and Adjustment
Clutch pedal height and free play

(Refer to page H–5.)


9MU0HX-049



97U0HX-010

AIR BLEEDING

The clutch hydraulic system must be bled to remove air introduced whenever a hydraulic line is disconnected.

Note
- **The fluid in the reserve tank must be maintained at the 3/4 level or higher during air bleeding.**

Caution
- **Clutch fluid will damage a painted surface. If fluid does get on a painted surface, wipe it off immediately.**
- **Do not mix different brands of clutch fluid.**
- **Do not reuse the clutch fluid which was drained out.**

1. Remove the bleeder cap from the clutch release cylinder and attach a vinyl hose to the bleeder plug.
2. Insert the other end of the vinyl hose in a clear container.
3. Slowly pump the clutch pedal several times.
4. While depressing the pedal, loosen the bleeder screw with the **SST** to let fluid and air escape.
   Close the bleeder screw with the **SST**.
5. Repeat Steps 3 and 4 until no air bubbles are seen in the fluid.
6. Tighten the bleeder screw.

Tightening torque:
5.9—8.8 N·m (60—90 cm-kg, 52—78 in-lb)

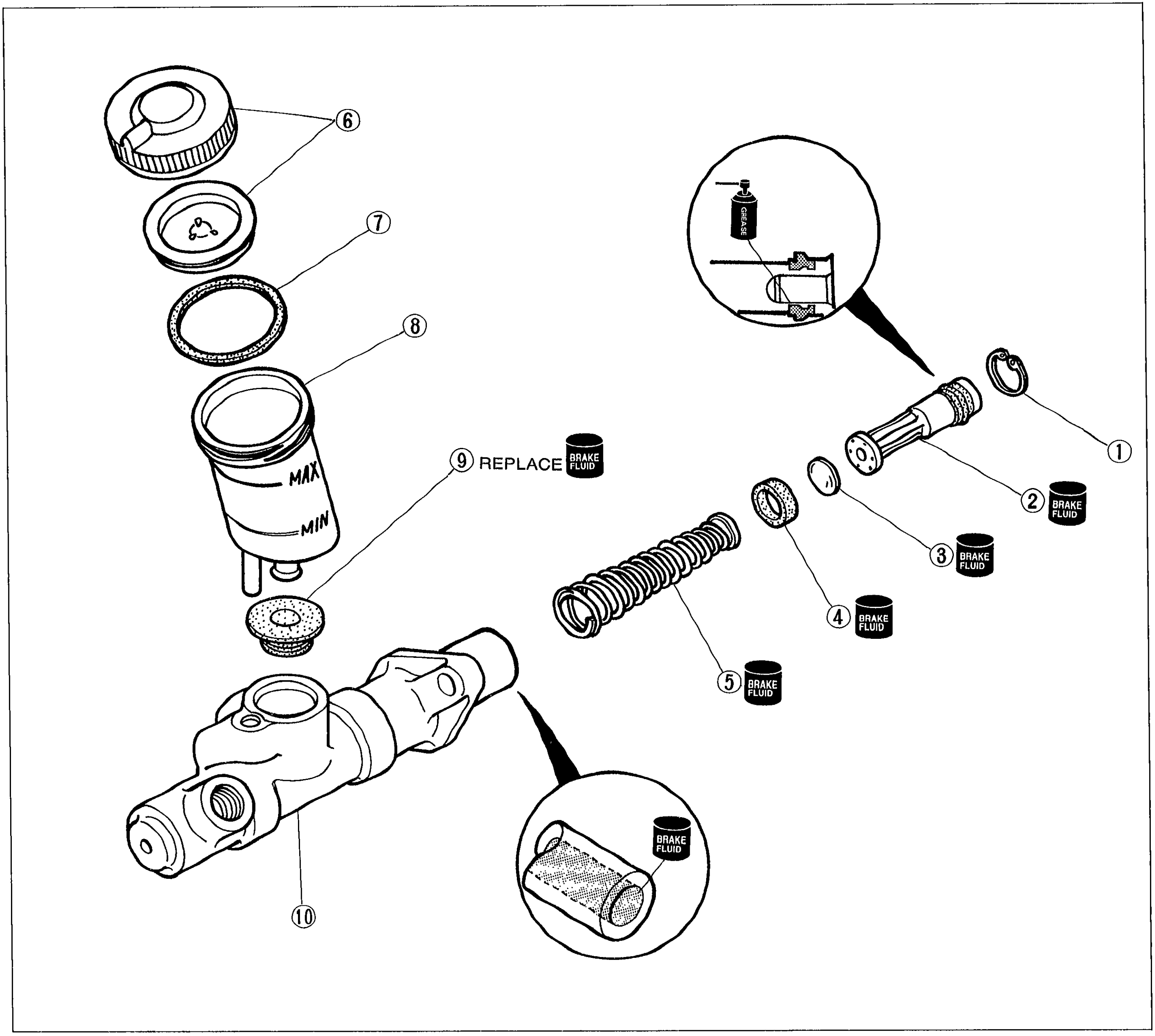
7. Check for correct clutch operation.
8. Verify that there is no fluid leakage.

OVERHAUL

Caution

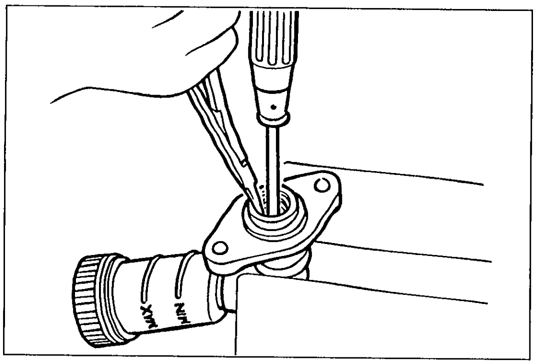
- **Clean the disassembled parts in solvent and blow through all ports and passages with compressed air.**

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Inspect all parts and repair or replace as necessary.
3. Assemble in the reverse order of disassembly, referring to **Assembly Note**.


⑥
⑦
⑧
⑨ REPLACE
BRAKE FLUID
GREASE
①
② BRAKE FLUID
③ BRAKE FLUID
④ BRAKE FLUID
⑤ BRAKE FLUID
BRAKE FLUID
MAX
MIN
⑩

05U0HX-013

1. Snap ring
    Disassembly Note .... page H–11
    Assembly Note .... page H–11
2. Piston and secondary cup assembly
    Disassembly Note .... page H–11
    Inspect for wear, scoring, and cracks
    Assembly Note .... page H–11
3. Spacer
4. Primary cup
    Inspect for wear and cracks
5. Return spring
6. Tank cap baffle
7. Packing
8. Reserve tank
9. Bushing
10. Master cylinder body
    Inspect cylinder bore for scoring and corrosion



9MU0HX-018

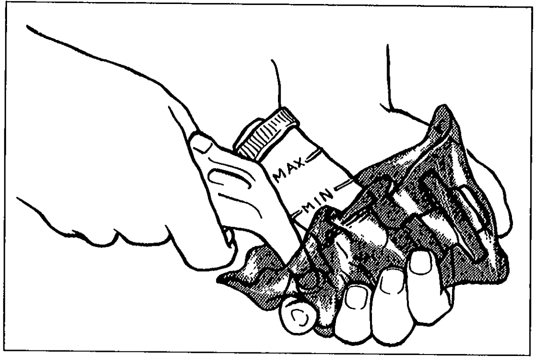
Disassembly Note

Snap ring

Note

- **Do not damage the push rod contact surface of the piston.**

Press down on the piston and remove the snap ring with snap-ring pliers.



9MU0HX-019

Piston and secondary cup assembly

Caution

- **Hold a rag over the master cylinder to prevent the piston and secondary cup assembly from jumping out.**

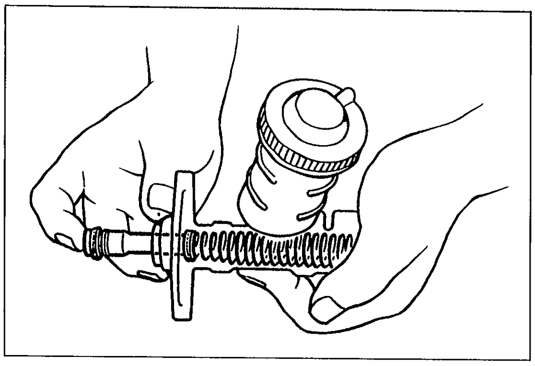
Remove the piston and secondary cup assembly, spacer, and primary cup by applying compressed air through the clutch pipe installation hole.

Assembly Note

Caution

- **Before assembly, make sure all parts are completely clean.**
- **Do not mix different brands of clutch fluid.**
- **Do not reuse the clutch fluid which was drained out.**
- **Apply the specified clutch fluid to the piston and secondary cup assembly, spacer, primary cup, and cylinder bore before assembly.**
- **Replace parts with new ones whenever specified to do so.**

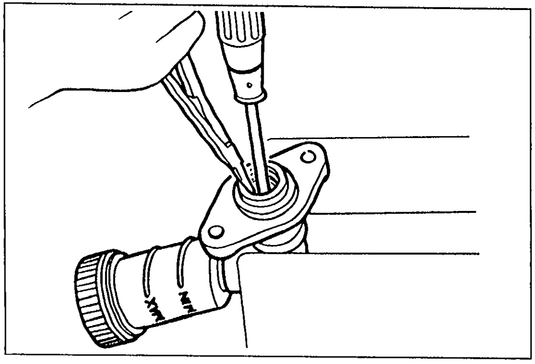
9MU0HX-021



05U0HX-014

Piston and secondary cup assembly

Install the spring, primary cup, spacer, and piston and secondary cup assembly, noting the proper direction of the parts. (Refer to page H–10.)



9MU0HX-023

Snap ring

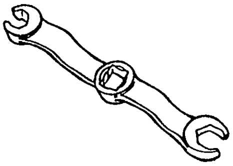
Note

- **Do not damage the push rod contact surface of the piston.**

While pressing the piston, install the snap ring.

CLUTCH RELEASE CYLINDER

PREPARATION
SST

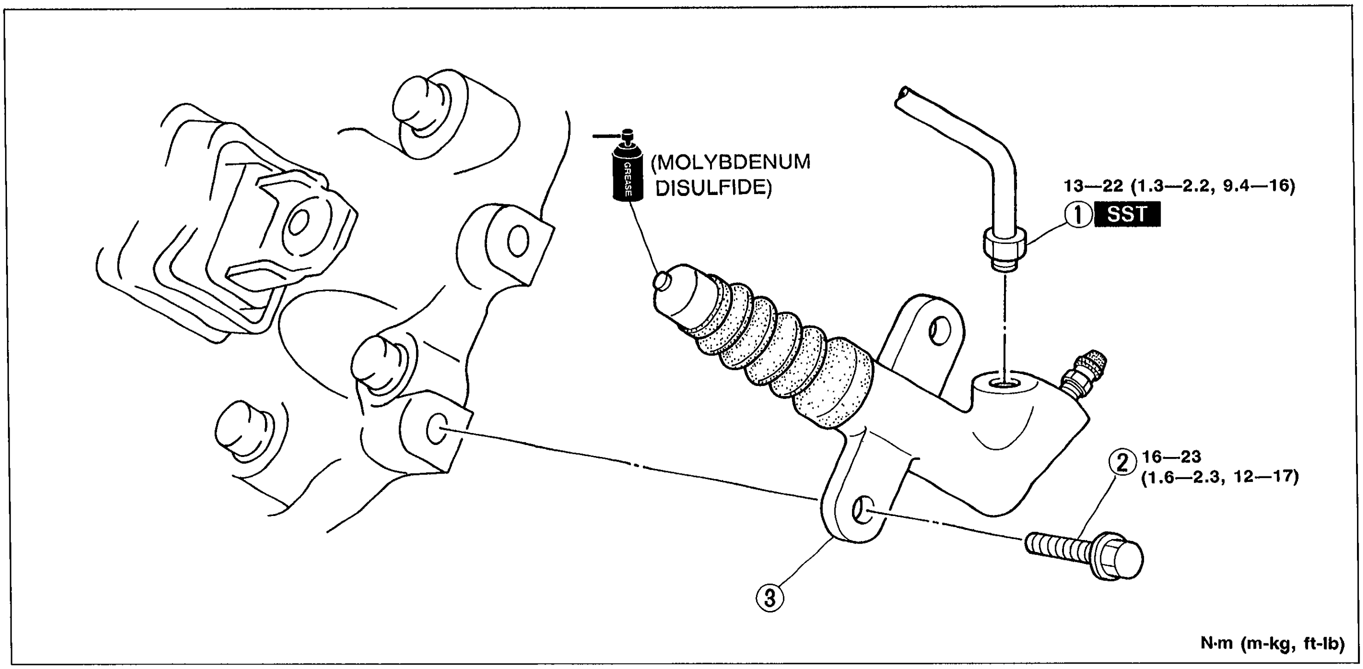
49 0259 770B Wrench, flare nut 	For disconnecting and connecting clutch pipe

05U0HX-015

REMOVAL / INSTALLATION

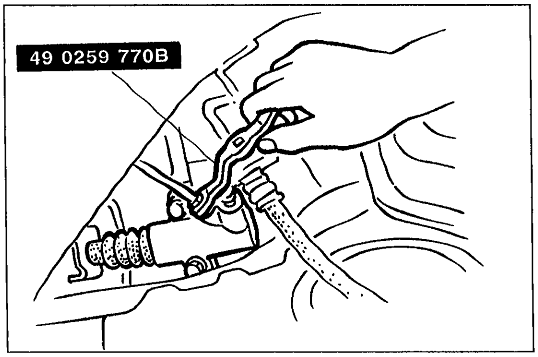
Caution
- **Clutch fluid will damage painted surfaces. Be sure to use a container or rags to collect it. If fluid does get on a painted surface, wipe it off immediately with a rag.**

1. Remove in the order shown in the figure, referring to **Removal Note**.
2. Install in the reverse order of removal, referring to **Installation Note**.



05U0HX-016

1. Clutch pipe
   Removal Note .... page H–12
   Installation Note.......................... page H–13
2. Bolt
3. Clutch release cylinder
   Remove boot and check for fluid leakage
   Overhaul.................................... page H–13

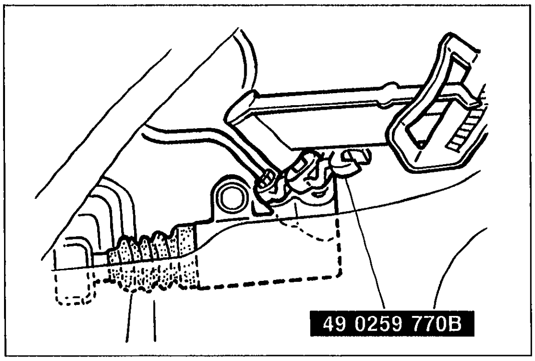


05U0HX-017

Removal Note
Clutch pipe

Caution
- **After disconnecting the clutch pipe, plug it to prevent fluid leakage.**

Disconnect the clutch pipe with the **SST**.



05U0HX-018

Installation Note
Clutch pipe
Tighten the clutch pipe with the **SST**.

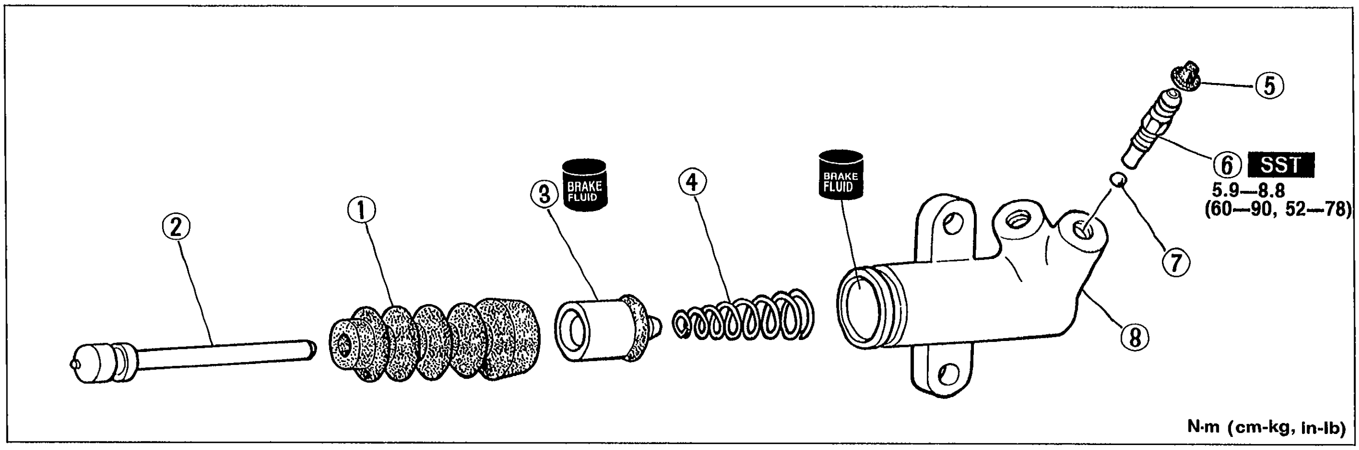
Tightening torque:
13—22 N·m (1.3—2.2 m-kg, 9.4—16 ft-lb)

Air Bleeding
After installation, bleed the clutch system.
(Refer to page H–9.)

OVERHAUL

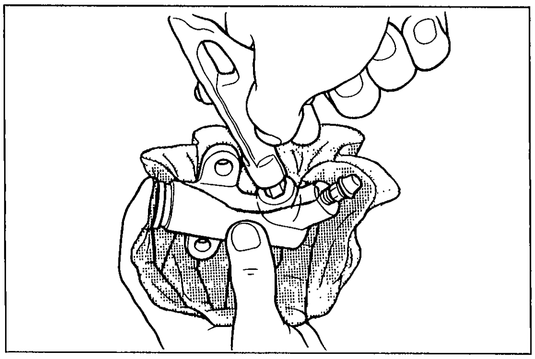
Caution
- **Clean the disassembled parts in solvent and blow through all ports and passages with compressed air.**
- **Before assembly, make sure all parts are completely clean.**
- **Apply the specified clutch fluid to the piston and cup assembly and cylinder bore before assembly.**

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Inspect all parts and repair or replace as necessary.
3. Assemble in the reverse order of disassembly.



05U0HX-019

1. Boot
2. Push rod
3. Piston and cup assembly
   Disassembly
   Note.............. page H–13
   Inspect for wear, scoring, and cracks
4. Spring
5. Bleeder cap
6. Bleeder screw
7. Steel ball
8. Release cylinder body
   Inspect cylinder bore for scoring and corrosion



05U0HX-020

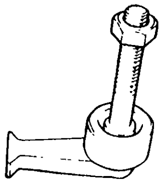
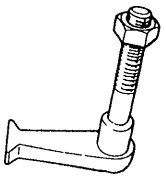
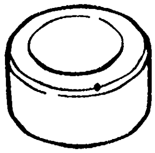
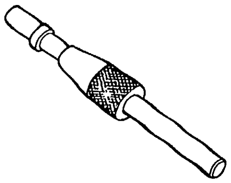
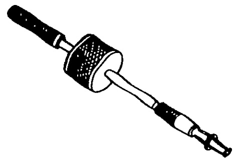
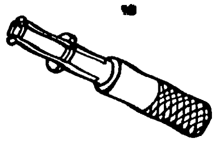
Disassembly Note
Piston and cup assembly

Caution
- **Hold a rag over the release cylinder to prevent the piston and cup assembly from jumping out.**

Remove the piston and cup assembly by applying compressed air through the clutch pipe installation hole.

CLUTCH UNIT

PREPARATION
SST

49 E301 060 Brake, ring gear 	For holding ring gear	49 E301 061 Body (Part of 49 E301 060) 	For holding ring gear
49 E301 062 Collar (Part of 49 E301 060) 	For holding ring gear	49 SE01 310 Clutch disc centering tool 	For removal and installation of clutch disc
49 1285 071 Puller, bearing 	For removal of pilot bearing	49 1285 073 Chuck (Part of 49 1285 073) 	For removal of pilot bearing

05U0HX-021

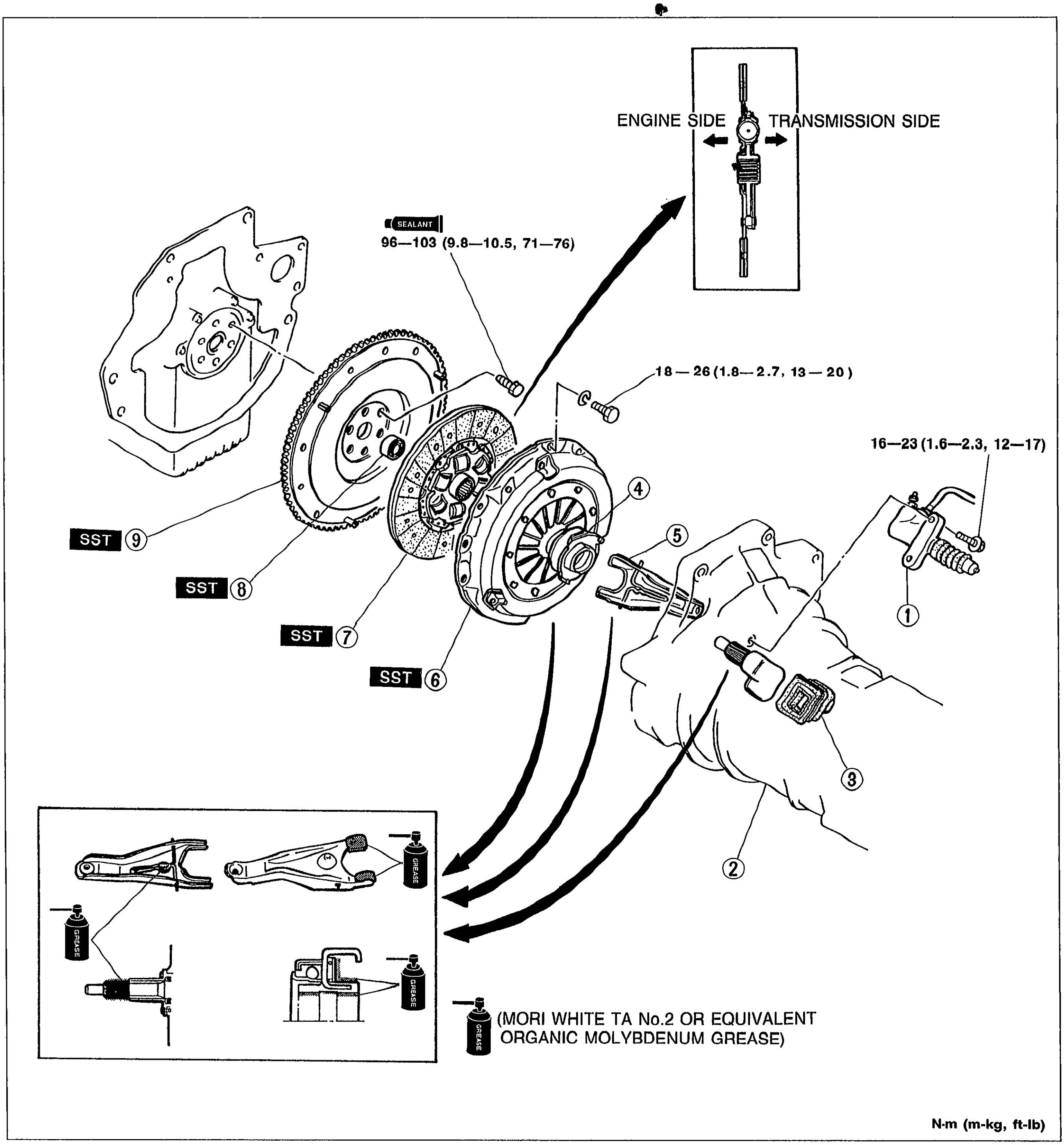
REMOVAL / INSTALLATION

Note
- **Remove the clutch release cylinder with the clutch pipe connected.**
- **Do not remove the pilot bearing if not necessary.**

1. Remove in the order shown in the figure, referring to **Removal Note**.
2. Install in the reverse order of removal, referring to **Installation Note**.

05U0HX-022

CLUTCH UNIT

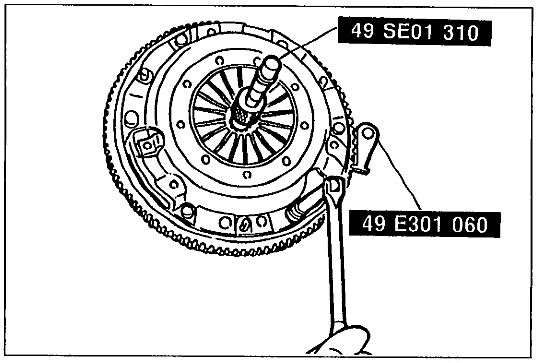

ENGINE SIDE
TRANSMISSION SIDE
SEALANT
96—103 (9.8—10.5, 71—76)
18—26 (1.8—2.7, 13—20)
16—23 (1.6—2.3, 12—17)
④
⑤
①
③
②
SST ⑨
SST ⑧
SST ⑦
SST ⑥
GREASE

(MORI WHITE TA No.2 OR EQUIVALENT ORGANIC MOLYBDENUM GREASE)

N·m (m-kg, ft-lb)

05U0HX-023

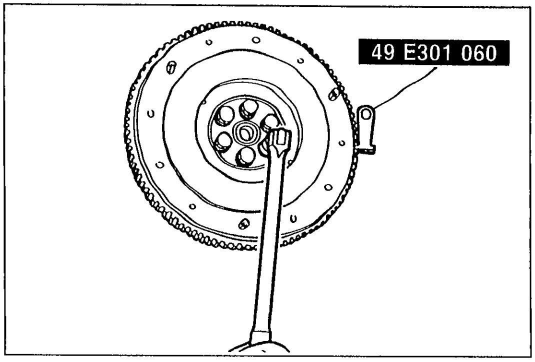
1. Clutch release cylinder
2. Transmission
   Service .... Section J
3. Boot
4. Release bearing
   Inspection .... page H–17
5. Release fork
6. Clutch cover
   Removal Note .... page H–16
   Inspection .... page H–17
   Installation Note .... page H–17
7. Clutch disc
   Removal Note .... page H–16
   Inspection .... page H–17
   Installation Note .... page H–17
8. Pilot bearing
   Inspection .... page H–18
   Removal Note .... page H–16
   Installation Note .... page H–16
9. Flywheel
   Removal Note .... page H–16
   Inspection .... page H–18
   Installation Note .... page H–16



97U0HX-016

Removal Note
Clutch cover and disc

1. Install the **SST**.
2. Loosen each bolt one turn at a time in a crisscross pattern until spring tension is released. Then remove the clutch cover and disc.

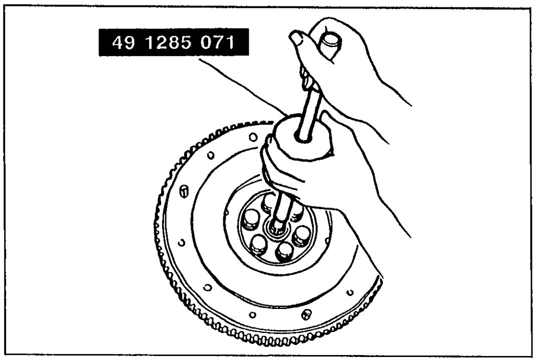


05U0HX-024

Flywheel

Note
- **After removing the flywheel, inspect for oil leakage past the crankshaft rear oil seal. If necessary, replace the oil seal. (Refer to Section B.)**

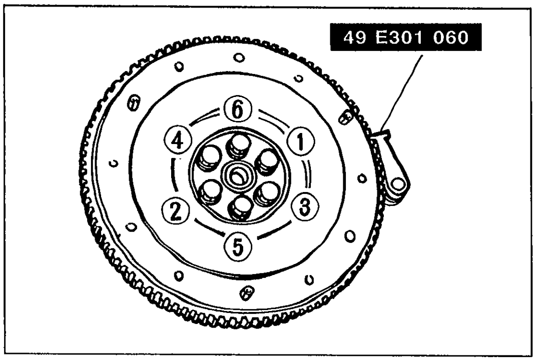
1. Hold the flywheel with the **SST**.
2. Remove the flywheel.



05U0HX-025

Pilot bearing

Remove the pilot bearing with the **SST**, if necessary.

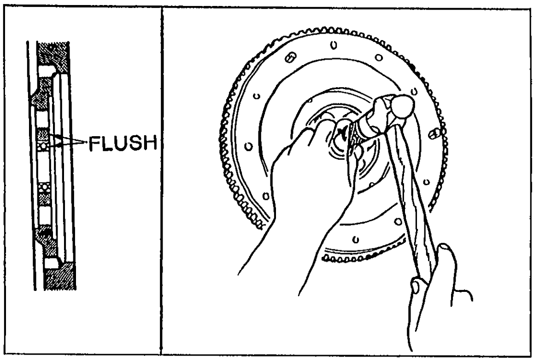


05U0HX-026

Installation Note
Flywheel

1. Wipe the bolts clean, and apply sealant to the bolt threads.
2. Install the flywheel and **SST**.
3. Tighten the bolts in the pattern shown.

Tightening torque:
96—103 N·m (9.8—10.5 m-kg, 71—76 ft-lb)

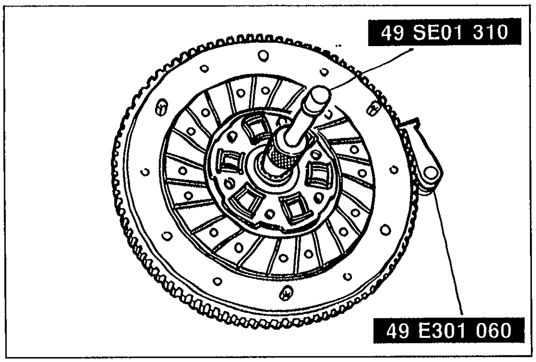


05U0HX-027

Pilot bearing

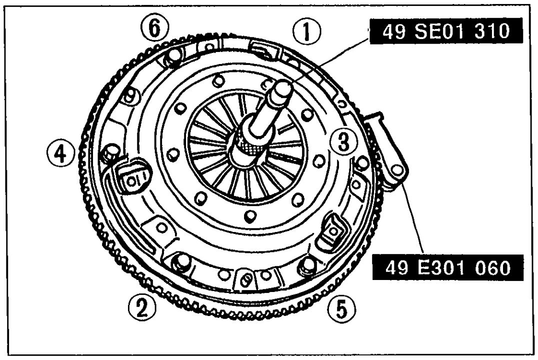
Note
- **Install the pilot bearing flush with the flywheel.**

Install the new bearing with a suitable pipe.



05U0HX-029

Clutch disc
1. Clean the clutch disc splines and main drive gear splines, and apply Mori White TA No.2 or equivalent organic molybdeum grease.
2. Hold the clutch disc in position with the **SST**.



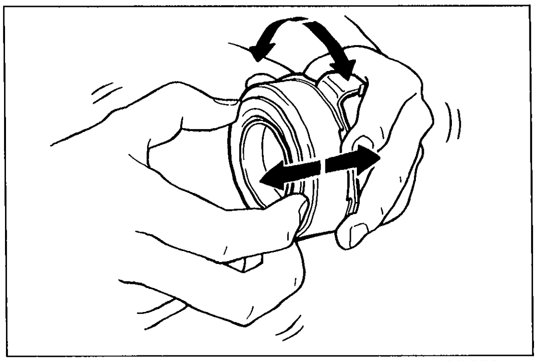
05U0HX-030

Clutch cover
1. Install the **SST**.
2. Align the dowel holes with the flywheel dowels.
3. Tighten the bolts evenly and gradually in the pattern shown.

Tightening torque:
18—26 N·m (1.8—2.7 m-kg, 13—20 ft-lb)

RELEASE BEARING

INSPECTION



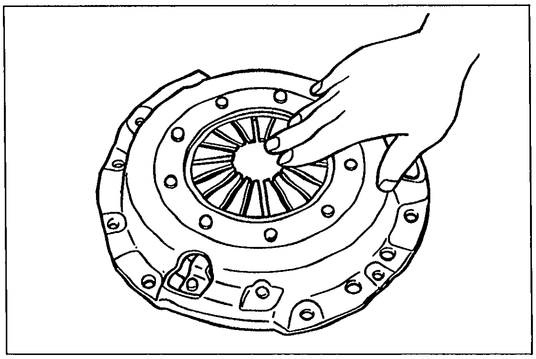
9MU0HX-040

Note
- **The clutch release bearing is a sealed bearing and must not be washed in solvent.**

Turn the bearing while applying force in the axial direction. If the bearing sticks or has excessive resistance, replace it.

CLUTCH COVER

INSPECTION



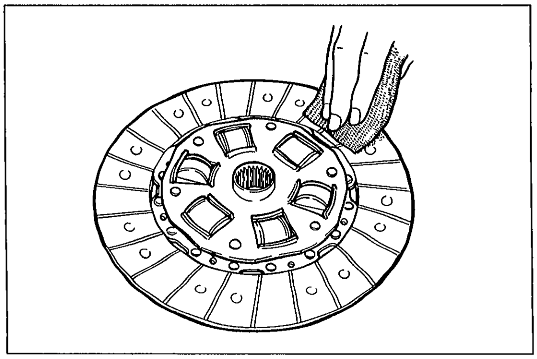
05U0HX-031

Note
- **Minor scoring or burning should be removed with emery paper.**

1. Inspect the contact surface of the clutch disc for scoring, cracks, and burning, repair or replace as necessary.
2. Inspect the contact surface of the clutch release bearing for wear and cracks.
3. If there is wear or cracks, replace the clutch cover.

CLUTCH DISC

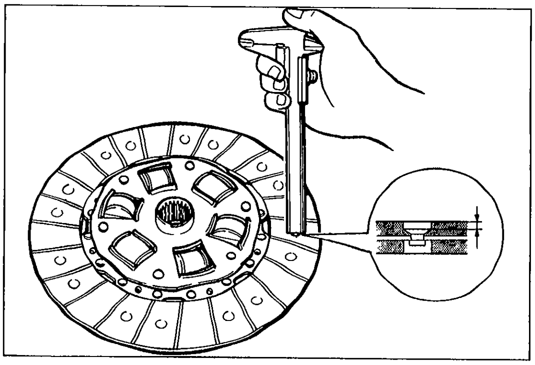
INSPECTION



05U0HX-032

Note
- **Use sandpaper if the trouble is minor.**

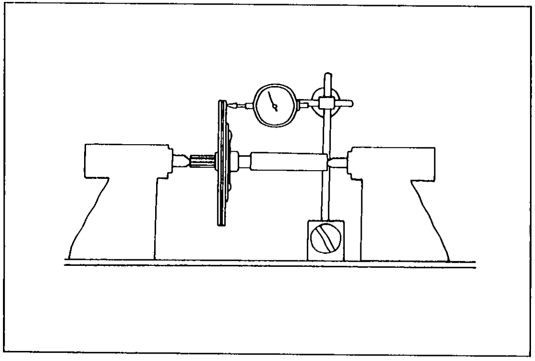
1. Inspect the lining surface for burning and oil contamination. Replace the clutch disc if it is badly burned or oil soaked.
2. Inspect for loose facing rivets or torsion rubbers. Replace the clutch disc if any are loose.



05U0HX-033

3. Measure the thickness of the lining at a rivet head on both sides with vernier calipers.
   Replace the clutch disc if less than minimum.

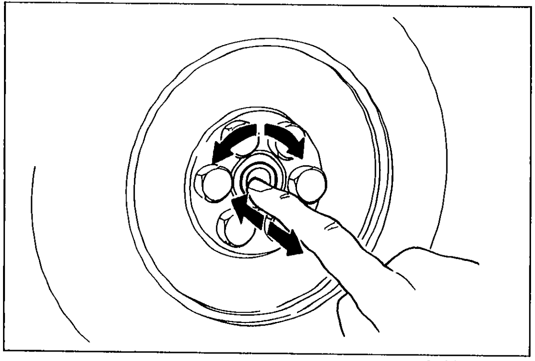
   Minimum thickness: 0.3mm (0.012 in)



97U0HX-024

4. Measure the clutch disc runout with a dial indicator.
   Replace the clutch disc if runout is excessive.

   Maximum runout: 0.7mm (0.028 in)

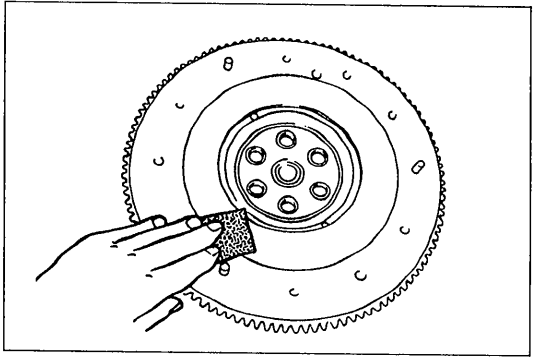


05U0HX-028

PILOT BEARING

INSPECTION

Turn the bearing while applying force in the axial direction. If the bearing sticks or has excessive resistance, replace it.



9MU0HX-046

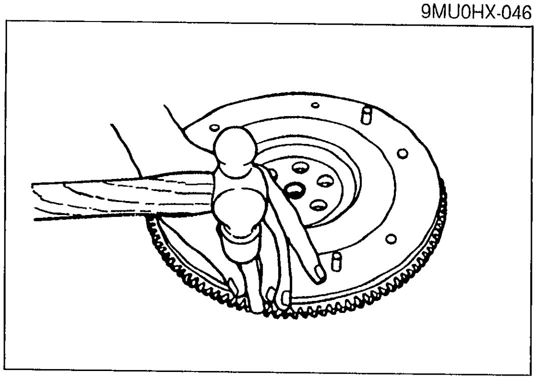
FLYWHEEL

INSPECTION

Note

- **Minor scoring or burning should be removed with emery paper.**

1. Inspect the contact surface of the clutch disc for scoring, cracks, or burning, repair or replace as necessary.

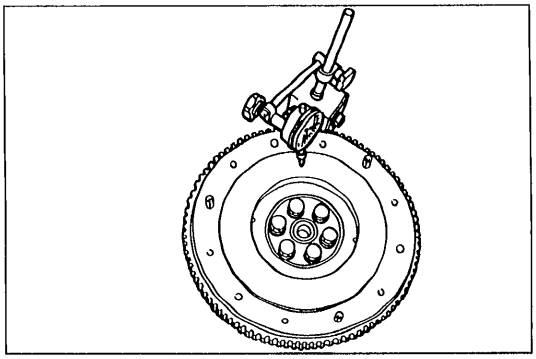


9MU0HX-047

Note

- **The beveled side of the ring gear must face the engine side.**

2. Inspect the ring gear teeth for wear or damage. If necessary, replace the ring gear as follows:
   (1) Heat the ring gear with a blowtorch. Tap around the gear to remove it from the flywheel.
   (2) Heat the new ring gear to **250—300°C (480—570°F)**; then fit it onto the flywheel.



9MU0HX-048

3. Measure the flywheel runout with a dial indicator. Replace the flywheel if runout is excessive.

Maximum runout: 0.2mm (0.008 in)

MANUAL TRANSMISSION

INDEX .... **J– 2**
OUTLINE .... **J– 3**
  SPECIFICATIONS .... **J– 3**
  STRUCTURAL VIEW.................................. **J– 4**
  COMPONENTS .... **J– 5**
  POWERFLOW .... **J– 6**
TROUBLESHOOTING GUIDE .... **J– 7**
TRANSMISSION OIL .... **J– 8**
  INSPECTION... **J– 8**
  REPLACEMENT .... **J– 8**
TRANSMISSION .... **J– 9**
  PREPARATION.. **J– 9**
  REMOVAL.. **J–10**
  DISASSEMBLY **J–13**
  INSPECTION... **J–23**
  ASSEMBLY.. **J–26**
  INSTALLATION **J–45**

05U0JX-001

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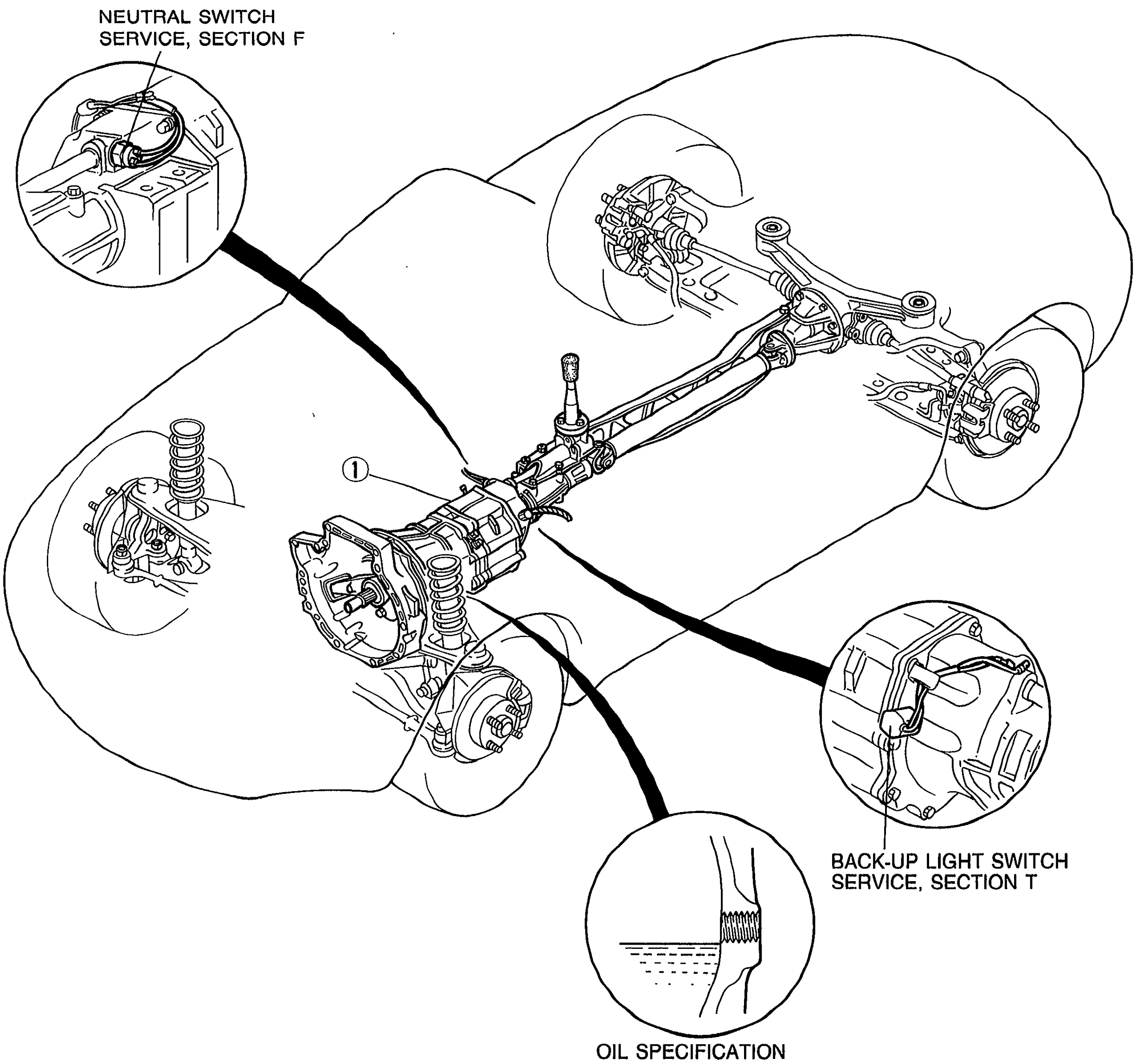


NEUTRAL SWITCH
SERVICE, SECTION F

BACK-UP LIGHT SWITCH
SERVICE, SECTION T

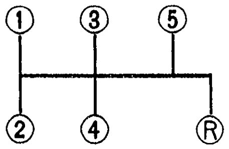
OIL SPECIFICATION
API SERVICE GL-4 OR GL-5
ALL-SEASON TYPE: SAE 75W-90
ABOVE 10°C (50°F): SAE 80W-90
CAPACITY LITERS (US qt, Imp qt): 2.0 (2.1, 1.8)

05U0JX-002

1. Transmission
    Removal .... page J–10
    Disassembly .... page J–13
    Inspection .... page J–23
    Assembly .... page J–26
    Installation .... page J–45

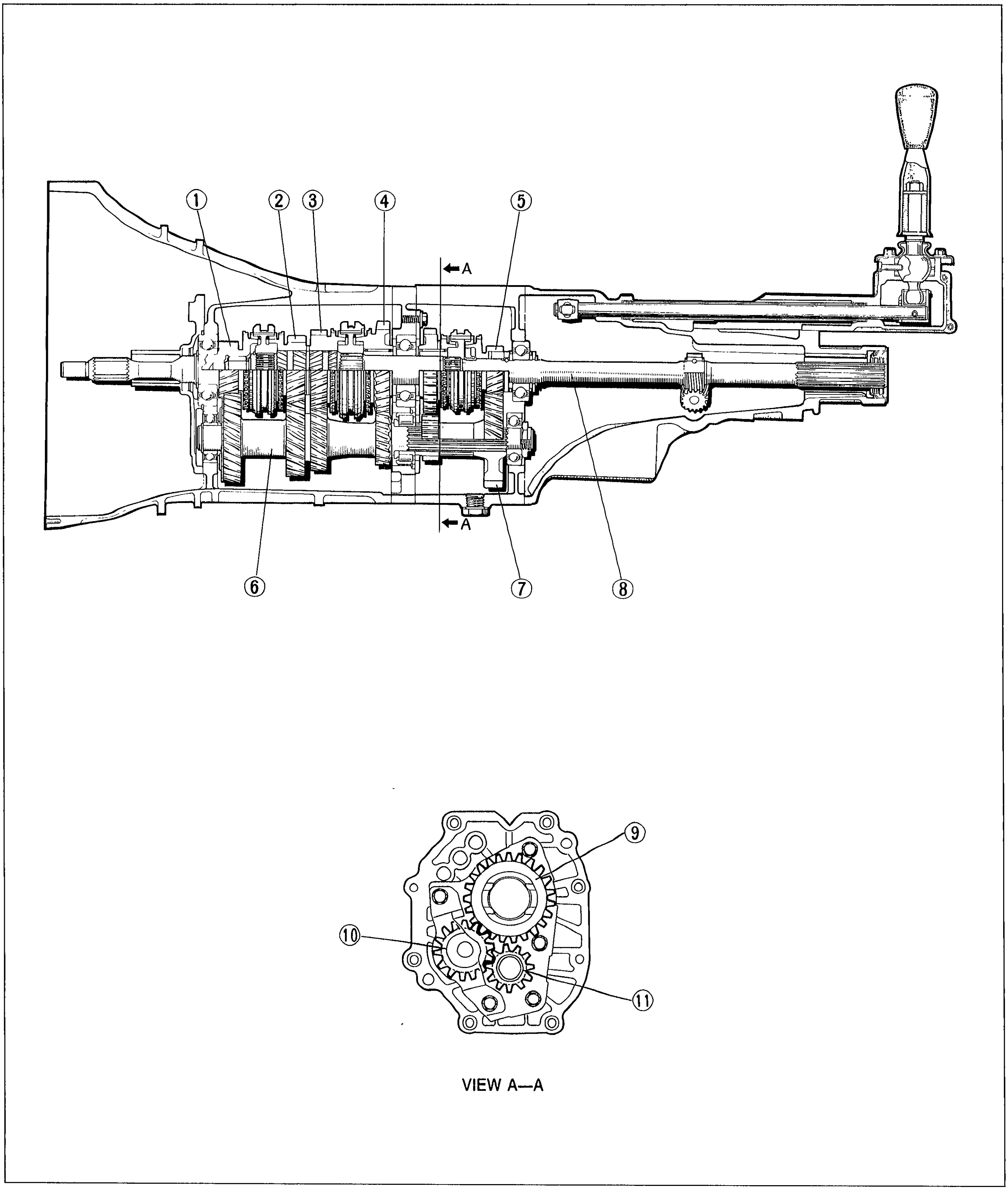
OUTLINE

SPECIFICATIONS

Transmission model Item			M-type
Synchronization mechanism			Forward: Synchromesh Reverse: Synchromesh
Shift type			5-speed, floor shift
Shift pattern			
Gear ratio	1st		3.136
	2nd		1.888
	3rd		1.330
	4th		1.000
	5th		0.814
	Reverse		3.758
Oil	Grade		API service GL-4 or GL-5
	Viscosity	All-season	SAE 75W-90
		Above 10°C (50°F)	SAE 80W-90
	Capacity	liters (US qts, Imp qts)	2.0 (2.1, 1.8)

05U0JX-003

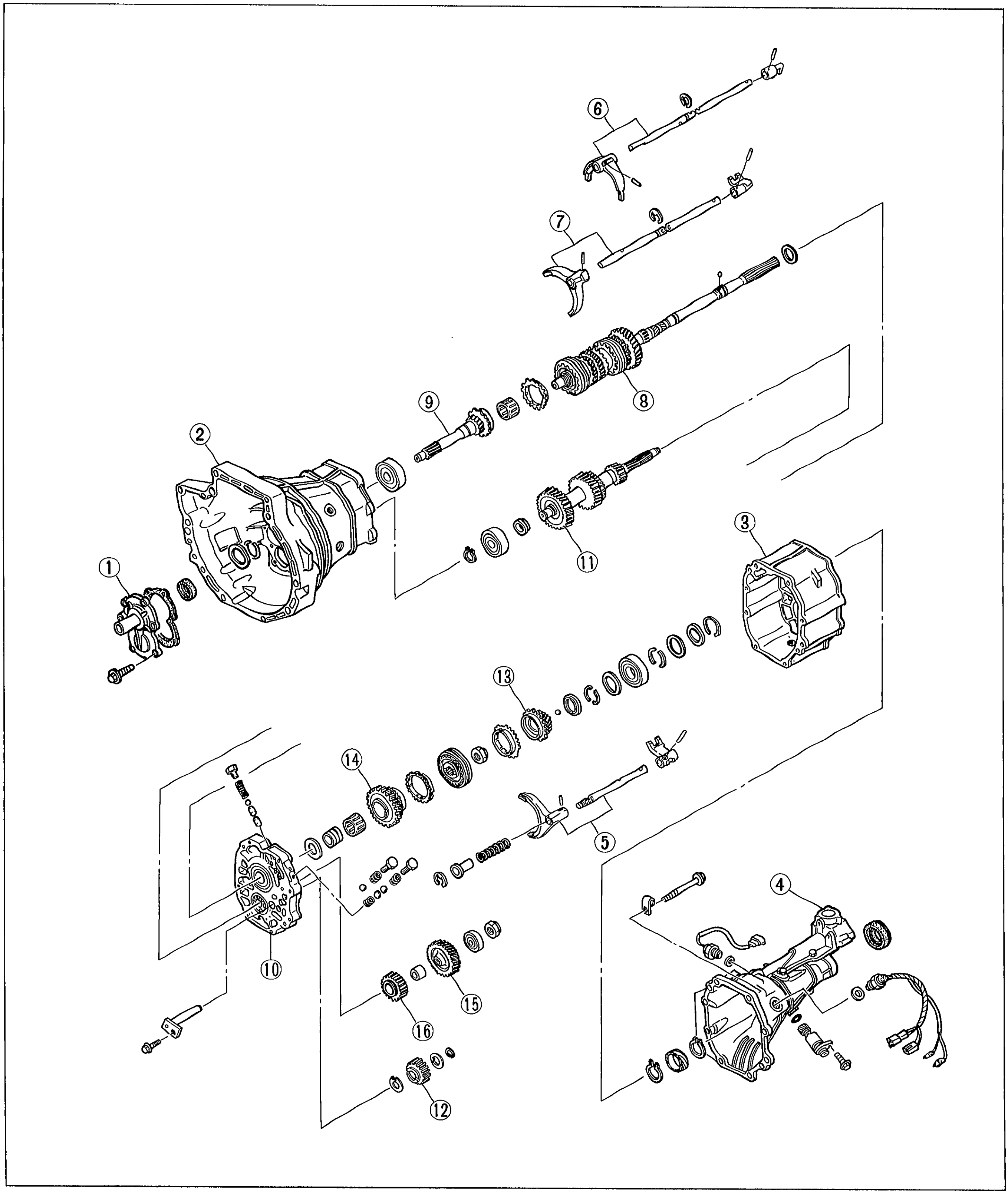
STRUCTURAL VIEW



9MU0JX-004

1. Main drive gear (4th gear)
2. 3rd gear
3. 2nd gear
4. 1st gear
5. 5th gear
6. Countershaft
7. Counter 5th gear
8. Mainshaft
9. Reverse gear
10. Reverse idler gear
11. Counter reverse gear

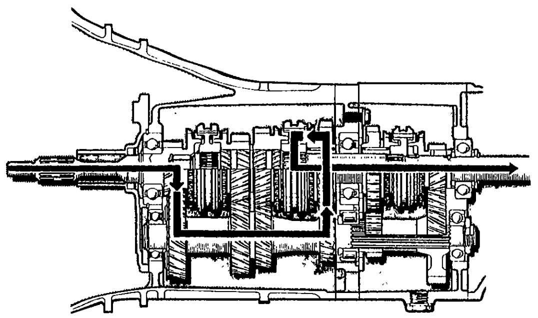
COMPONENTS



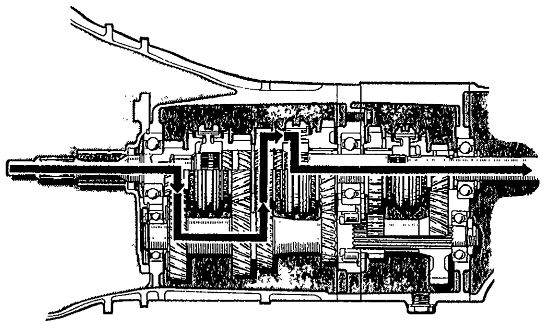
05U0JX-004

1. Front cover
2. Transmission case
3. Intermediate housing
4. Extension housing
5. Shift fork and rod (5th/Reverse)
6. Shift fork and rod (1st/2nd)
7. Shift fork and rod (3rd/4th)
8. Mainshaft gear assembly
9. Main drive gear
10. Bearing housing
11. Countershaft
12. Reverse idler gear
13. 5th gear
14. Reverse gear
15. Counter 5th gear
16. Counter reverse gear

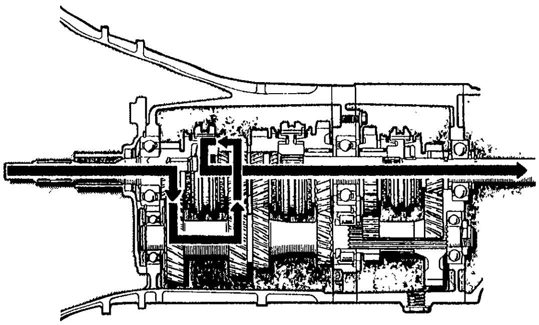
POWERFLOW



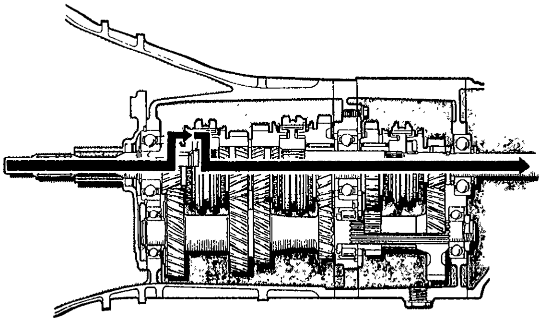
1ST



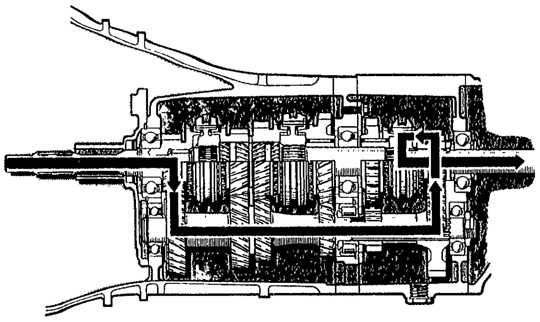
2ND



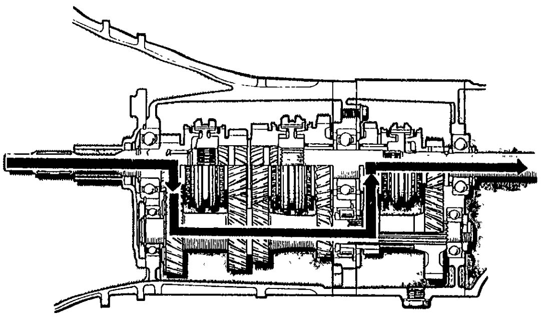
3RD



4TH



5TH



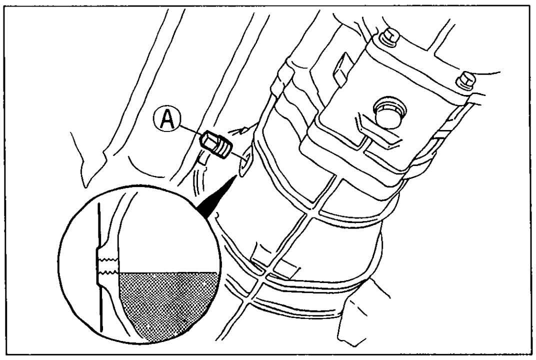
REVERSE

9MU0JX-006

TROUBLESHOOTING GUIDE

Problem	Possible Cause	Action	Page
Abnormal noise	Insufficient oil	Add oil	J– 8
	Deterioration of oil quality	Replace with specified oil	J– 8
	Worn bearing	Replace	J–24
	Worn contact surface of countershaft gear	Replace	J–23
	Worn contact surface of gears	Replace	J–23
	Excessive gear backlash	Replace	—
	Damaged gear teeth	Replace	J–23
Difficult to shift	Insufficient oil	Add oil	J– 8
	Deterioration of oil quality	Replace with specified oil	J– 8
	Worn synchronizer ring	Replace	J–24
	Worn synchronizer cone of gear	Replace	J–24
	Poor contact of synchronizer ring and gear cone	Replace	J–24
	Excessive longitudinal play of gears	Replace	J–23
	Worn bearing	Replace	J–24
	Improper disengagement of clutch	Refer to Section H	—
Jumps out of gear	Weak detent ball spring	Replace	J–25
	Worn shift fork	Replace	J–24
	Worn clutch hub	Replace	J–23
	Worn clutch hub sleeve	Replace	J–23
	Worn gears	Replace	J–23
	Excessive gear backlash	Replace	—
	Worn bearing	Replace	J–24
Vibration	Incorrect installation of or loose power plant frame	Correct or tighten	J–45

05U0JX-005



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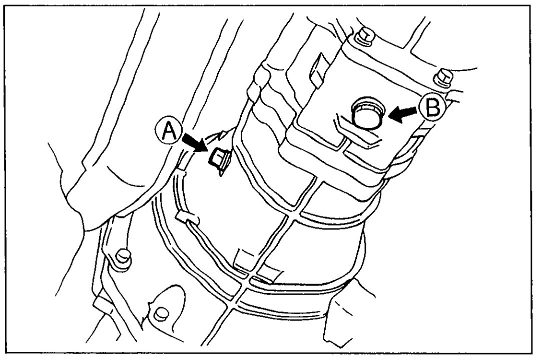
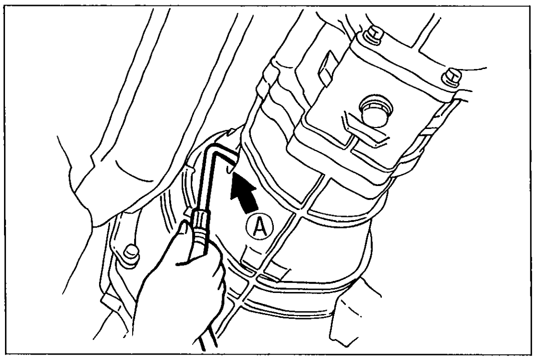


9BU0J1-006



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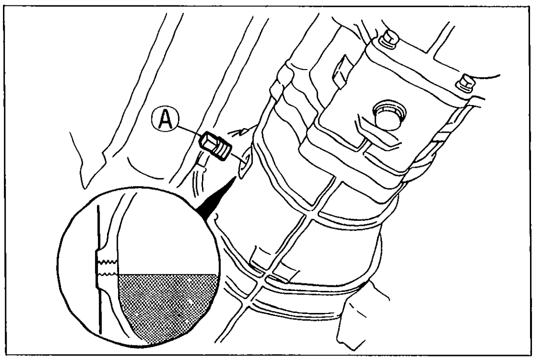


9BU0J1-008

TRANSMISSION OIL

INSPECTION

1. Remove check plug Ⓐ.
2. Verify that the oil is at the bottom of the check plug hole. If it is low, add the specified oil from check plug Ⓐ.
3. Wipe clean and apply sealant to the plug threads before installing.

Tightening torque:
Ⓐ: 25—39 N·m (2.5—4.0 m-kg, 18—29 ft-lb)

REPLACEMENT

Note
- **Replace drain plug Ⓑ washer with a new one whenever the drain plug is removed.**

1. Remove the plugs (Ⓐ and Ⓑ with washer).
2. Drain the oil into a suitable container.
3. Wipe all plugs clean.
4. Apply sealant to plug thread Ⓐ.
5. Install the drain plug (Ⓑ with new washer).

Tightening torque:
Ⓑ: 39—59 N·m (4.0—6.0 m-kg, 29—43 ft-lb)

6. Add the specified oil from check plug Ⓐ port until the level reaches the bottom of check plug hole.

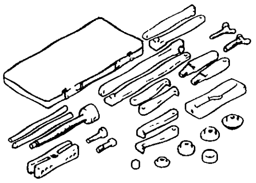
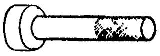
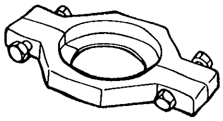
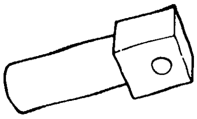
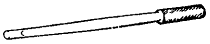
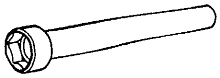
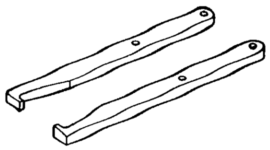
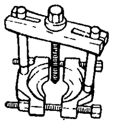
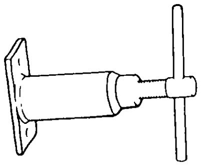
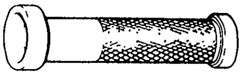
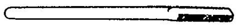
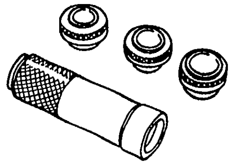
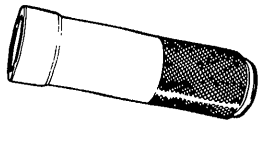
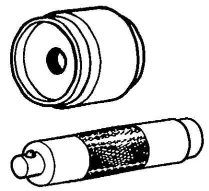
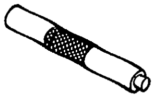
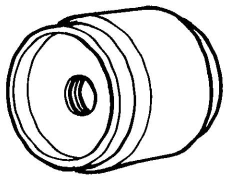
Specified oil:
API service GL-4 or GL-5
All-season: SAE 75W-90
Above 10°C (50°F): SAE 80W-90

7. Install plug Ⓐ.

Tightening torque:
Ⓐ: 25—39 N·m (2.5—4.0 m-kg, 18—29 ft-lb)

TRANSMISSION

PREPARATION
SST

49 0839 425C Puller set, bearing 	For removal of bearing	49 0500 330 Installer, transmission bearing 	For installation of bearing
49 0636 145 Puller, fan pulley boss 	For removal of clutch hub assembly	49 0259 440 Holder, mainshaft 	For holding mainshaft
49 0862 350 Guide, shift fork 	For installation of interlock pin	49 1243 465A Wrench, main-shaft locknut 	For removal of locknut
49 H017 101 Hook 	For removal of bearing	49 0710 520 Puller, bearing 	For removal of bearing
49 0305 430 Pusher, main drive shaft 	For removal of transmission case	49 0180 321A Installer, bearing 	For installation of bearing
49 0187 451A Guide, interlock pin 	For installation of spring and ball	49 F401 330B Installer set, bearing 	For installation of bearing
49 F401 331 Body (Part of 49 F401 330B) 	For installation of clutch hub assembly	49 B025 0A0 Installer, oil seal 	For installation of dust seal
49 G030 797 Handle (Part of 49 B025 0A0) 	For installation of oil seal	49 B025 001 Body (Part of 49 B025 0A0) 	For installation of oil seal

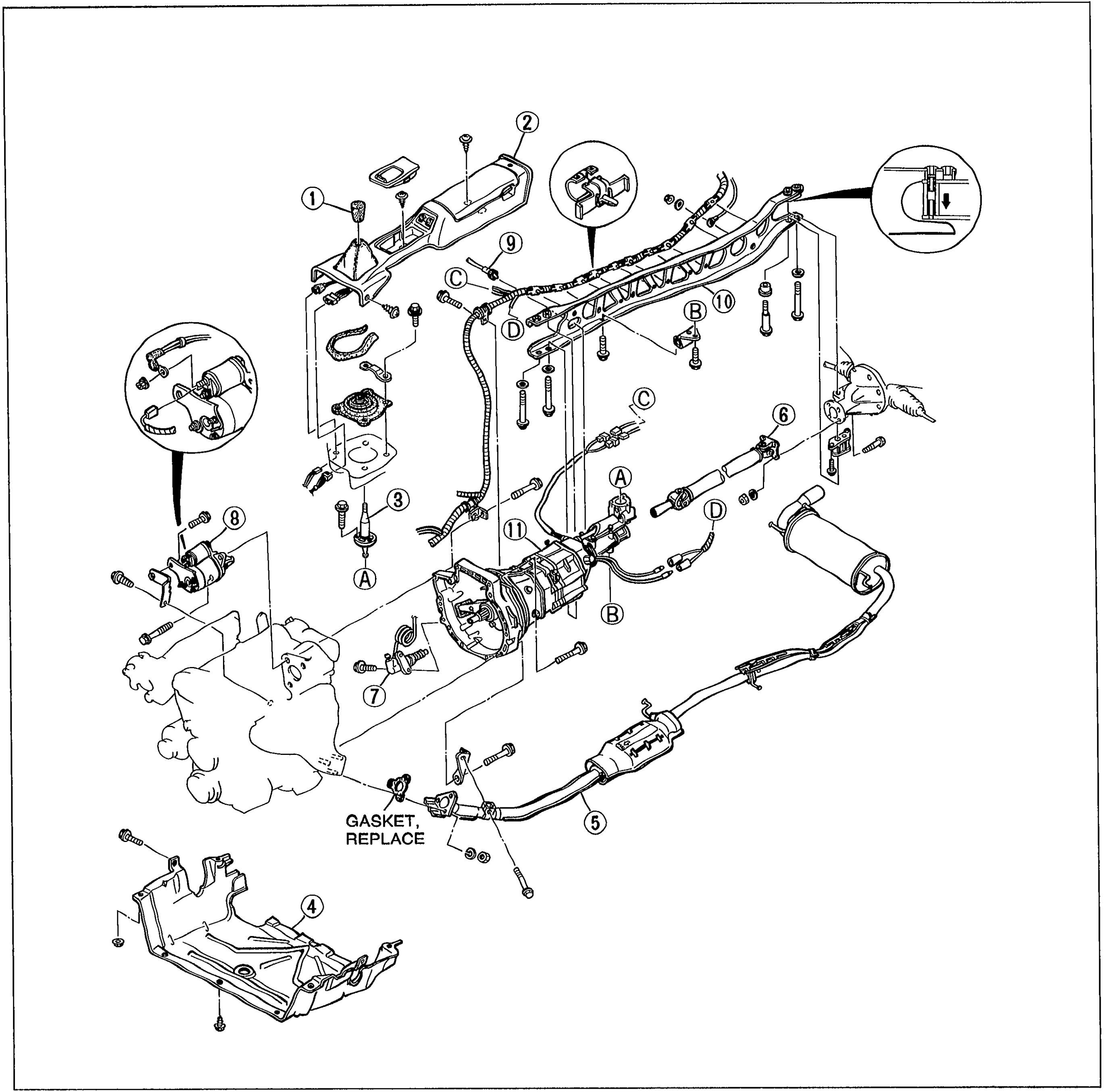
05U0JX-008

REMOVAL

Caution

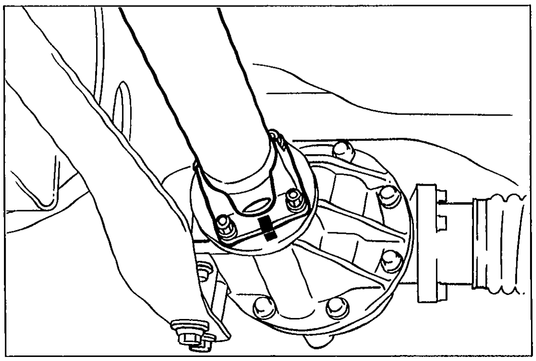
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–111.)**

1. Disconnect the negative battery cable.
2. Raise the vehicle and support it with safety stands.
3. Drain the transmission oil into a suitable container.
4. Remove in the order shown in the figure, referring to **Removal Note**.



05U0JX-009

1. Shift lever knob
2. Rear console
3. Shift lever
4. Undercover
5. Exhaust pipe
6. Propeller shaft
   Removal Note... page J–11
7. Clutch release cylinder
8. Starter
9. Speedometer cable
10. Power plant frame (PPF)
    Removal Note... page J–11
11. Transmission
    Removal Note... page J–12

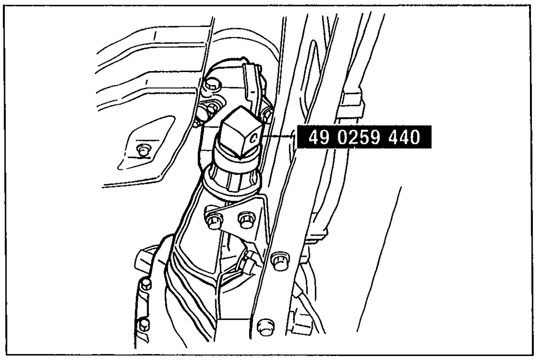


05U0MX-065

Removal note

Propeller shaft

1. Before removing the propeller shaft, mark the flanges for correct installation.

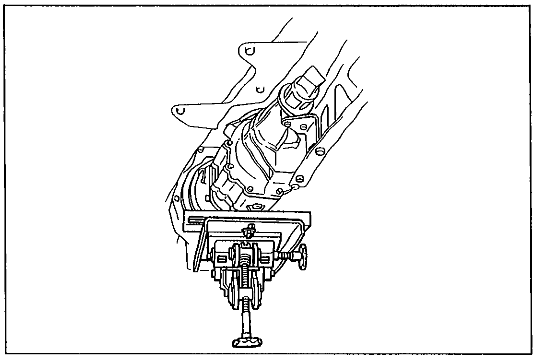


05U0MX-066

2. When the propeller shaft is removed from the extension housing, immediately install the **SST** to prevent oil leakage.

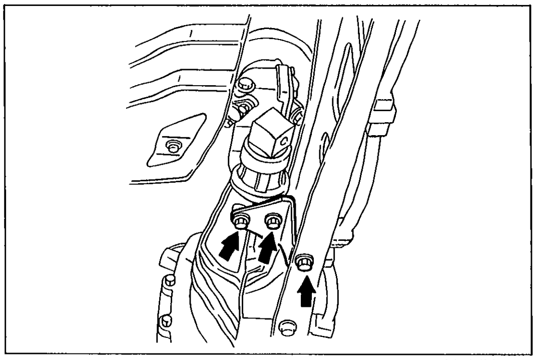
Power plant frame (PPF)

1. Disconnect the wire harness from the PPF.
2. Support the transmission with a jack.



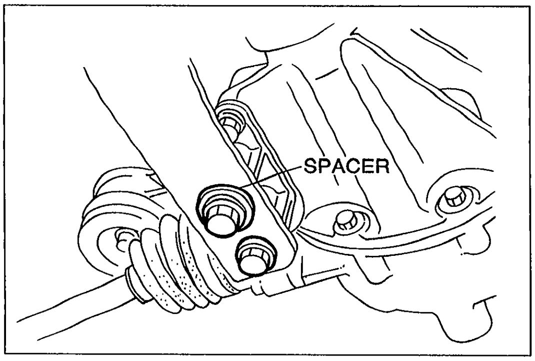
05U0MX-067

3. Remove the power plant frame bracket.

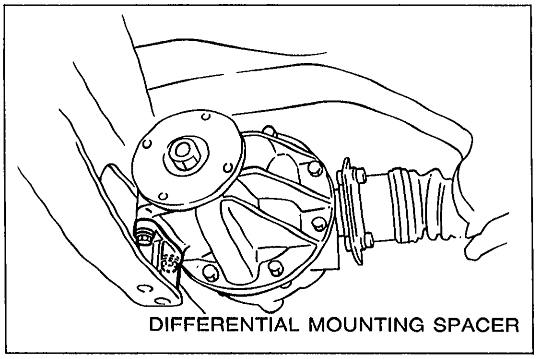


05U0MX-068

4. Remove the differential-side bolts, and pry out the spacer.

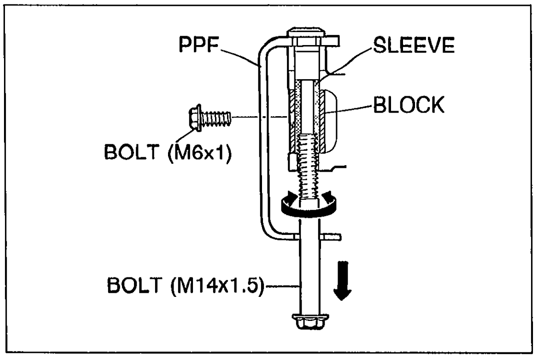


05U0MX-069


DIFFERENTIAL MOUNTING SPACER

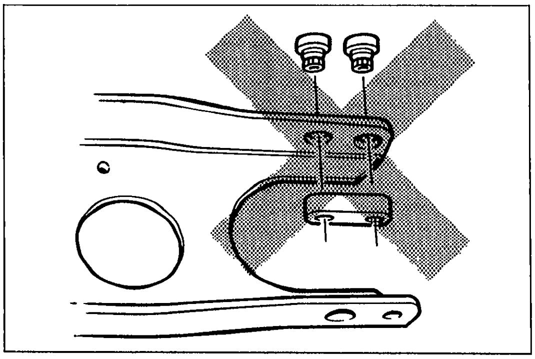
05U0MX-125

5. Remove the differential mounting spacer.


PPF
SLEEVE
BLOCK
BOLT (M6x1)
BOLT (M14x1.5)

05U0MX-070

6. Turn a bolt (M14x1.5) into the sleeve.
7. Twist and pull the bolt downward.
8. Install a bolt (M6x1) into the hole in the block to hold the sleeve, and remove the long bolt (M14x1.5).
9. Remove the bolt (M6x1).



05U0MX-071

Caution
- **Do not remove the spacers shown in the figure from the PPF.**
- **If they are removed, repalce the PPF as an assembly.**

10. Remove the transmission-side bolts, and remove the PPF.

Transmission

Caution
- **Do not violently shake the transmission, the crank angle sensor may be damaged.**

05U0JX-010

DISASSEMBLY

Precaution

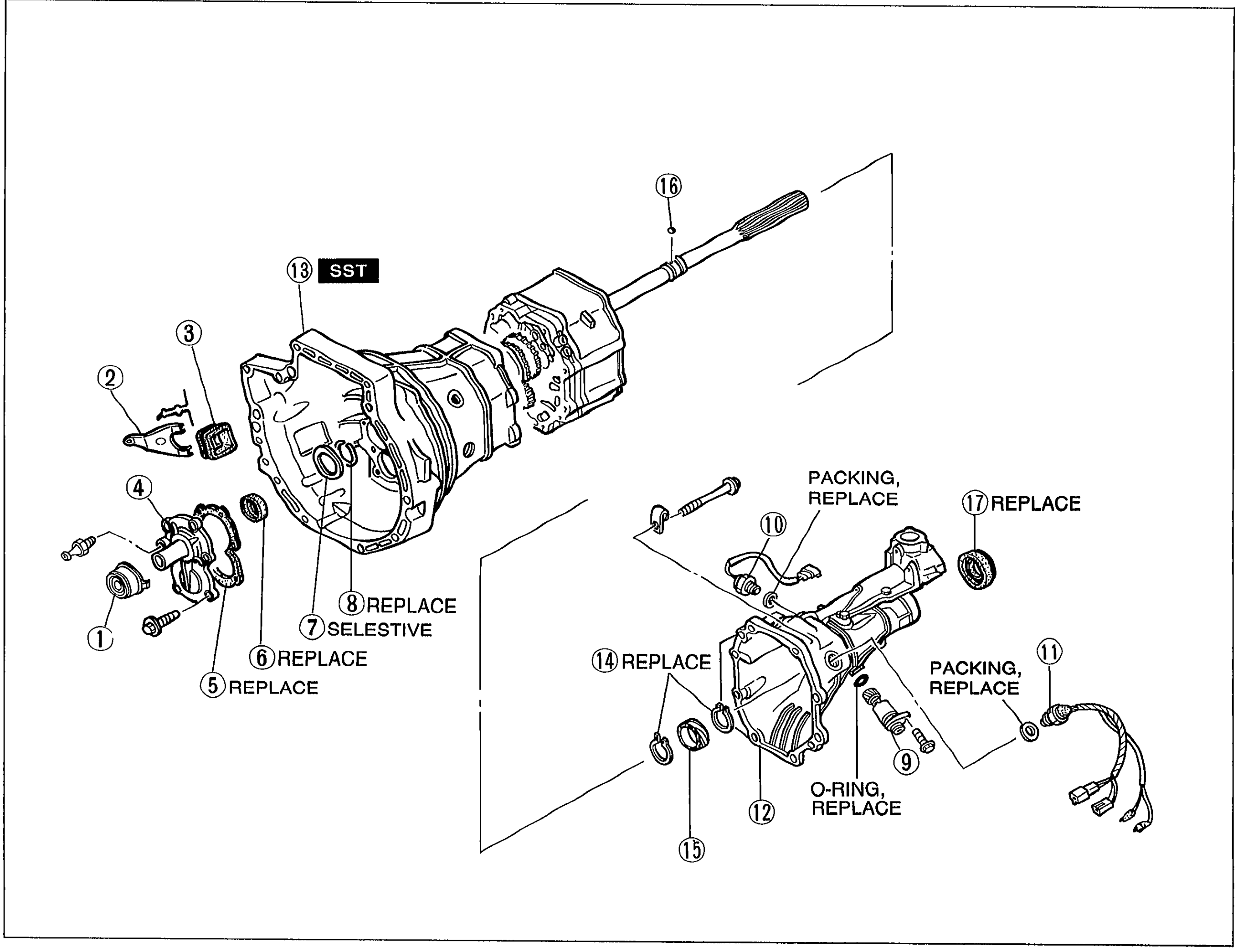
1. Clean the transmission exterior thoroughly with a steam cleaner or cleaning solvent before disassembly.
2. Clean the removed parts (except sealed bearings) and all sealing surfaces with cleaning solvent, and dry with compressed air.
   Clean out all holes and passages with a compressed air, and check that there are no obstructions.
3. Wear eye protection when using compressed air to clean components.

Housing Components

Note

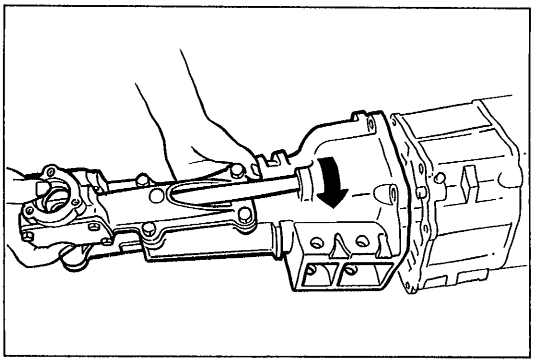
- **Do not remove the front and rear oil seals if not necessary.**

Disassemble in the order shown in the figure, referring to **Disassembly Note**.


⑯
⑬ SST
③
②
④
①
⑧REPLACE
⑦SELESTIVE
⑥REPLACE
⑤REPLACE
PACKING, REPLACE
⑩
⑰REPLACE
⑭REPLACE
⑪
PACKING, REPLACE
⑨
O-RING, REPLACE
⑫
⑮

05U0JX-011

1. Release bearing
2. Release fork
3. Boot
4. Front cover
5. Gasket
6. Oil seal (front)
   Inspect for damage of oil seal lip. If necessary, replace it.
7. Adjustment shim
8. Snap ring
9. Speedometer driven gear
10. Neutral switch
11. Back-up light switch
12. Extension housing
    Disassembly Note .... page J–14
    Disassembly ..... page J–22
13. Transmission case
    Disassembly Note .... page J–14
14. Snap rings
15. Speedometer drive gear
16. Steel ball
17. Oil seal (rear)
    Inspect for damage of oil seal lip
    If necessary, replace it.
    Replace (on-vehicle) .... page J–14

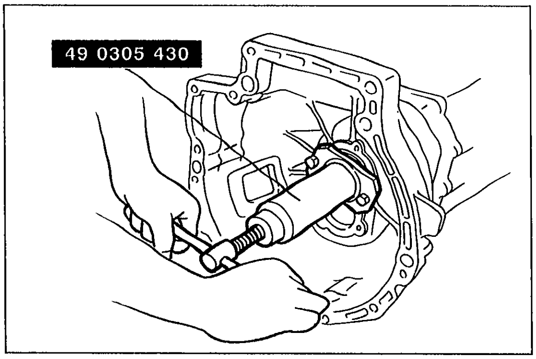


05U0JX-012

Disassembly note

Extension housing

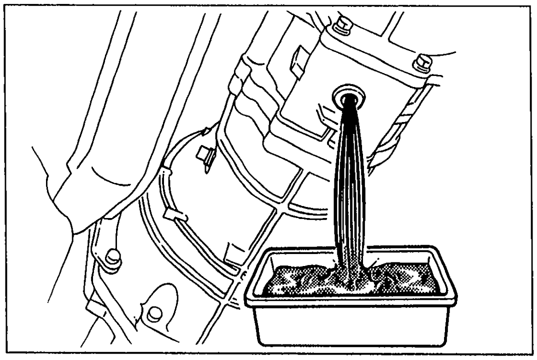
Turn the extension housing to remove it.



9BU0J1-013

Transmission case

Remove the transmission case from the intermediate housing and gear assembly with the **SST**.



05U0JX-013

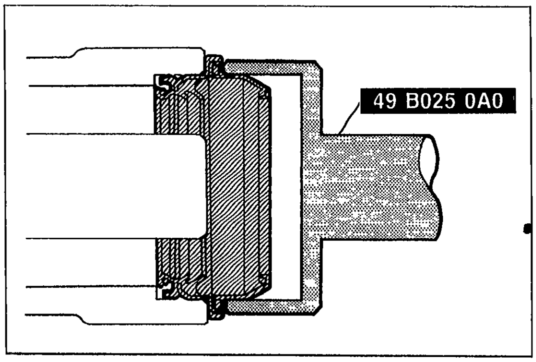
On-vehicle replacement

Oil seal (rear)

Caution

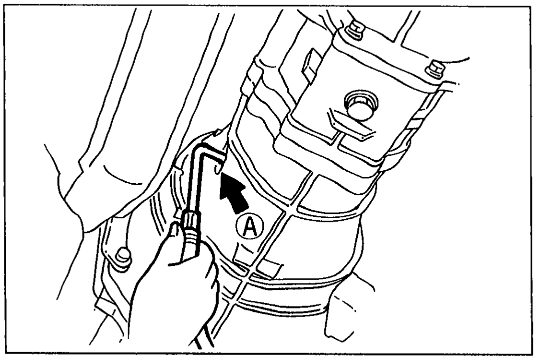
- **Do not damage the mainshaft splines.**

1. Raise the vehicle and support it with safety stands.
2. Drain the transmission oil into a suitable container.
3. Remove the exhaust pipe.
4. Remove the propeller shaft. (Refer to Section L.)
5. Remove the oil seal from the extension housing.



05U0JX-014

6. Apply transmission oil to outer periphery.
7. Install a new oil seal with the **SST**.

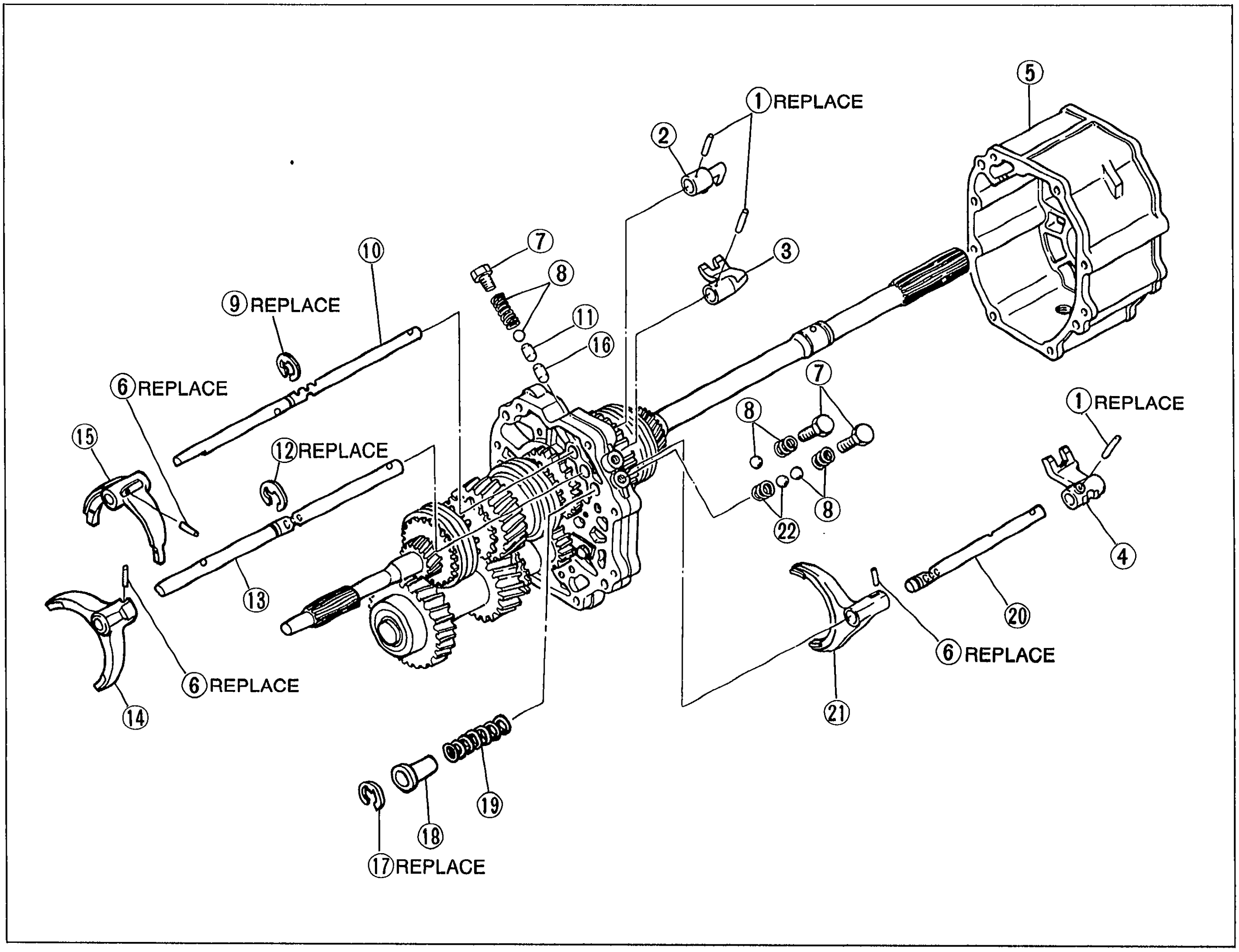


05U0JX-015

8. Install the propeller shaft. (Refer to Section L.)
9. Install the exhaust pipe.
10. Add the specified oil from check plug Ⓐport until the level reaches the bottom of the check plug hole. (Refer to page J–8.)

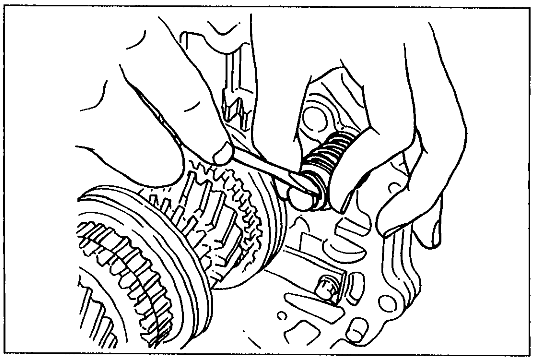
Shift Fork and Shift Rod Parts

Disassemble in the order shown in the figure, referring to **Disassembly Note.**


⑤
① REPLACE
②
③
⑩
⑦
⑧
⑨ REPLACE
⑪
⑯
⑥ REPLACE
⑦
⑧
① REPLACE
⑮
⑫ REPLACE
⑧
㉒
④
⑬
⑳
⑥ REPLACE
⑥ REPLACE
⑭
㉑
⑲
⑱
⑰ REPLACE

05U0JX-016

1. Roll pin
2. 1st/2nd shift rod end
3. 3rd/4th shift rod end
4. 5th/Reverse shift rod end
5. Intermediate housing
   Inspection......... page J–25
6. Roll pin
7. Cap plug
8. Spring and ball
   Inspection......... page J–25
9. Clip
10. 1st/2nd shift rod
11. Interlock pin
12. Clip
13. 3rd/4th shift rod
14. 3rd/4th shift fork
    Inspection......... page J–24
15. 1st/2nd shift fork
    Inspection......... page J–24
16. Interlock pin
17. Clip
    Disassembly Note
    .... page J–15
18. Spacer
19. Spring
    Inspection......... page J–25
20. 5th/Reverse shift rod
21. 5th/Reverse shift fork
    Inspection......... page J–24
22. Spring and ball
    Inspection......... page J–25



97U0J1-016

Disassembly note
Clip

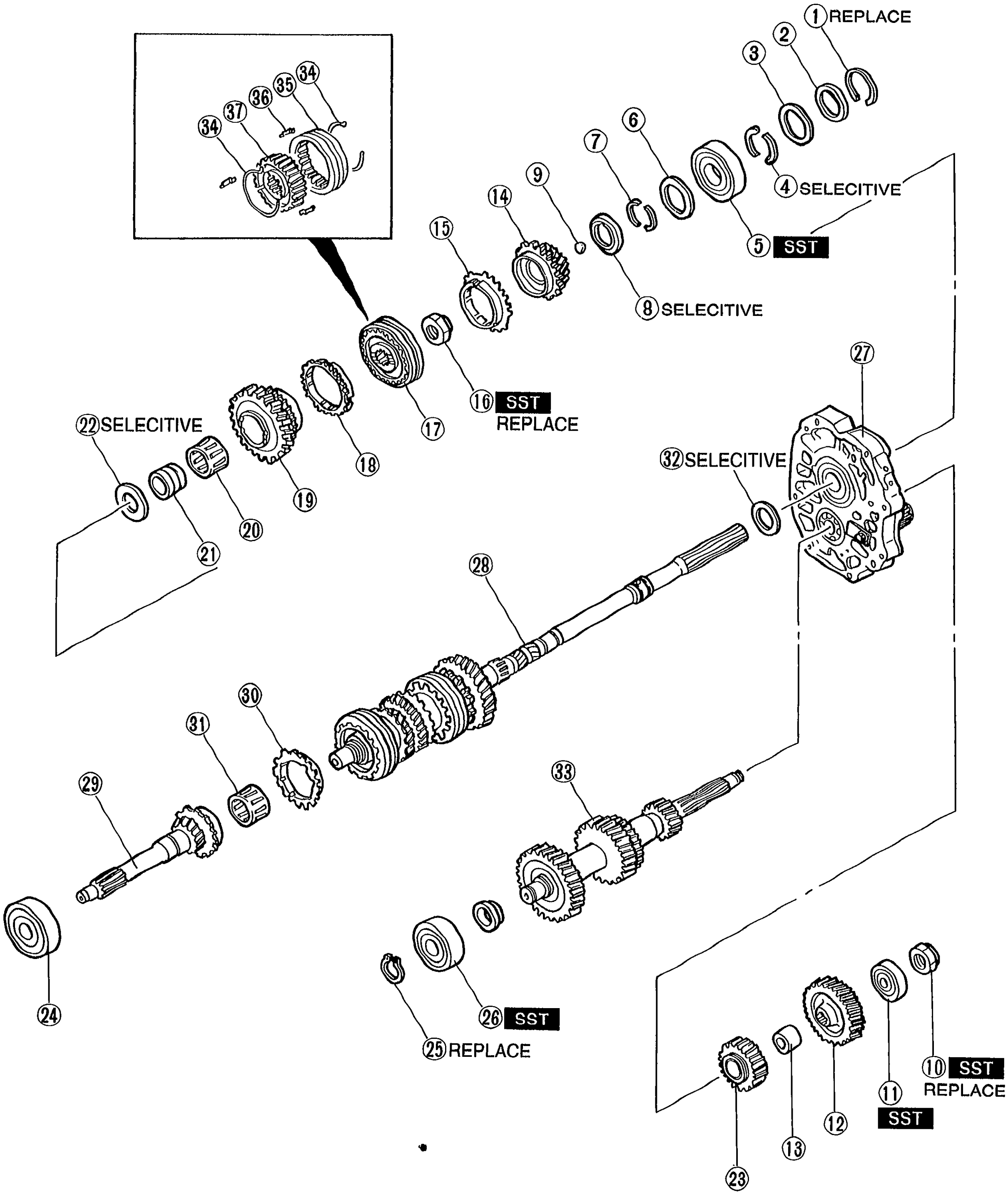
Caution

- **Hold the spacer and spring to prevent it from jumping out.**

Remove the clip, spacer, and spring from the 5th/Reverse shift rod.

Mainshaft and Countershaft Parts

Disassemble in the order shown in the figure, referring to **Disassembly Note**.



① REPLACE
②
③
④ SELECTIVE
⑤ SST
⑥
⑦
⑧ SELECTIVE
⑨
⑩ SST REPLACE
⑪ SST
⑫
⑬
⑭
⑮
⑯ SST REPLACE
⑰
⑱
⑲
⑳
㉑
㉒ SELECITIVE
㉓
㉔
㉕ REPLACE
㉖ SST
㉗
㉘
㉙
㉚
㉛
㉜ SELECITIVE
㉝
㉞
㉟
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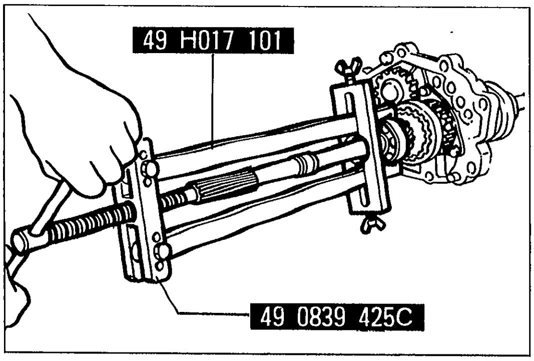
㉞

97U0J1-017

1. Snap ring
2. Washer
3. Retaining ring
4. C-washer
5. Mainshaft rear bearing
   Disassembly Note .... page J–17
   Inspection......... page J–24
6. Retaining ring
7. C-washer
8. Thrust lock washer
9. Steel ball
10. Locknut (Countershaft)
    Disassembly Note .... page J–17
11. Countershaft rear bearing
    Disassembly Note .... page J–18
    Inspection......... page J–24
12. Counter 5th gear
    Inspection......... page J–23
13. Spacer
14. 5th gear
    Inspection......... page J–23
15. Synchronizer ring (5th)
    Inspection......... page J–24
16. Locknut (Mainshaft)
    Disassembly Note .... page J–18
17. Clutch hub assembly (5th/Reverse)
    Inspection......... page J–23
18. Synchronizer ring (Reverse)
    Inspection......... page J–24
19. Reverse gear
    Inspection......... page J–23
20. Needle bearing
    Inspection......... page J–24
21. Inner race
22. Washer
23. Counter reverse gear
    Inspection......... page J–23
24. Main drive gear bearing
    Disassembly Note .... page J–18
    Inspection......... page J–24
25. Snap ring
26. Countershaft front bearing
    Disassembly Note .... page J–18
    Inspection......... page J–24
27. Bearing housing assembly
    Disassembly Note .... page J–18
    Disassembly..... page J–20
28. Mainshaft gear assembly
29. Main drive gear
    Inspection......... page J–23
30. Synchronizer ring (4th)
    Inspection......... page J–24
31. Needle bearing
    Inspection......... page J–24
32. Washer
33. Countershaft
    Inspection......... page J–23
34. Synchronizer key spring
35. Clutch hub sleeve
36. Synchronizer key
37. Clutch hub

05U0JX-017

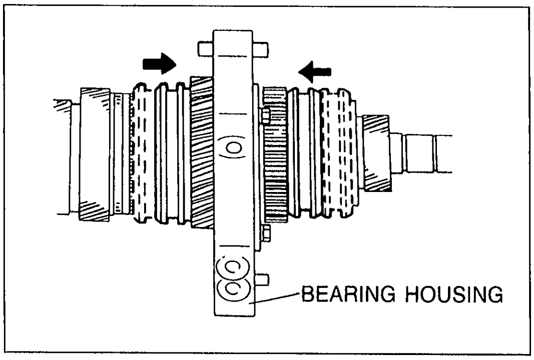


05U0JX-018

Disassembly note

Mainshaft rear bearing

Remove the mainshaft rear bearing with the **SST**.



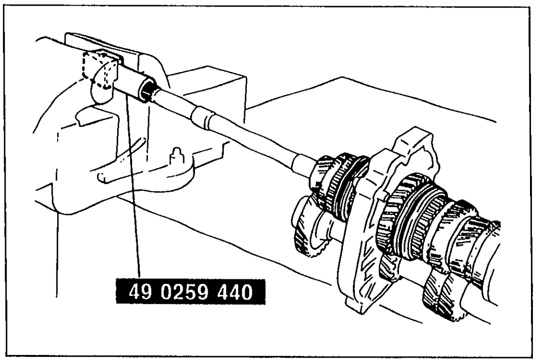
97U0J1-020

Locknut (Countershaft)

1. Shift the clutch hub sleeves to first gear and reverse gear to put the gears in the double-engaged condition.

   Caution
   - **Do not reuse the locknut.**
   - **Do not damage the countershaft.**

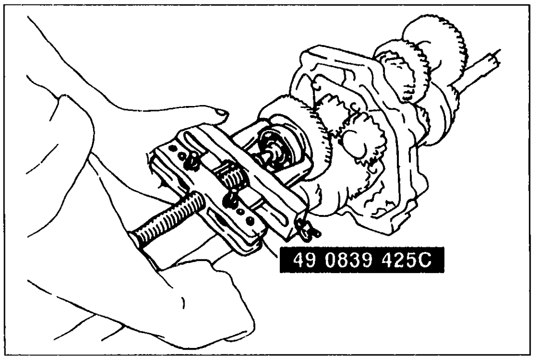
2. Use a suitable tool to uncrimp the tabs of the locknut.



97U0J1-021

   Note
   - **Use pads in the vise to prevent damaging the SST.**

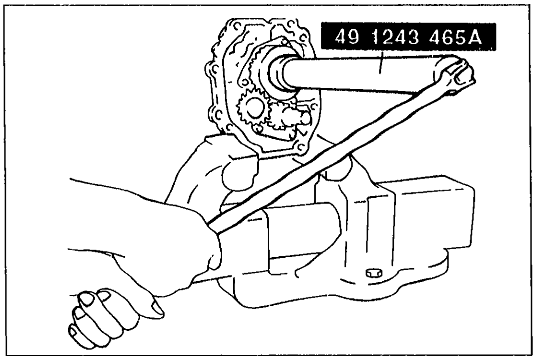
3. Connect the **SST** to the mainshaft and tighten it securely in a vise.
4. Remove the locknut.



97U0J1-022

Countershaft rear bearing

Remove the countershaft rear bearing with the **SST**.



05U0JX-019

Locknut (Mainshaft)

1. Shift the clutch hub sleeves to first gear and reverse gear to put the gears in the double-engaged condition.

Caution

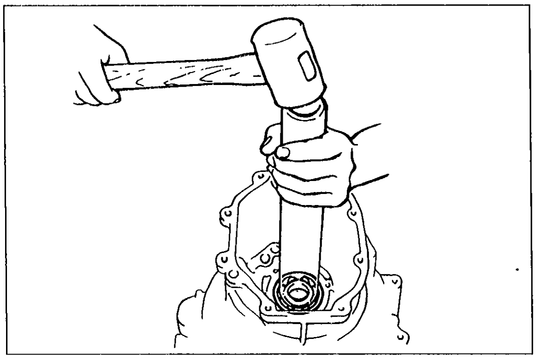
- **Do not reuse the locknut.**
- **Do not damage the mainshaft and clutch hub assembly.**

2. Use a suitable tool to uncrimp the tabs of the locknut.

Note

- **Use pads in the vise to prevent damaging the bearing housing.**

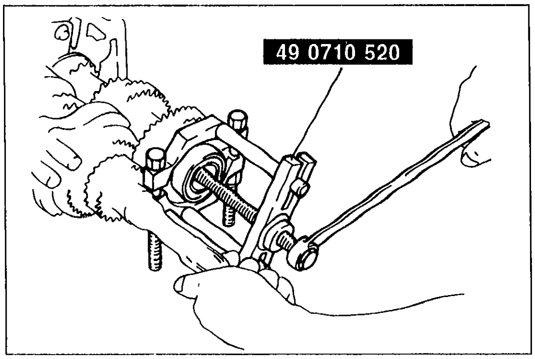
3. Secure the bearing housing in a vise.
4. Remove the locknut with the **SST**.



97U0J1-024

Main drive gear bearing

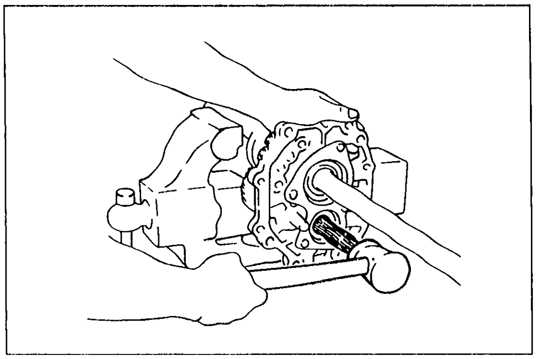
Remove the main drive gear bearing with a suitable pipe.



97U0J1-025

Countershaft front bearing

Remove the countershaft front bearing with the **SST**.



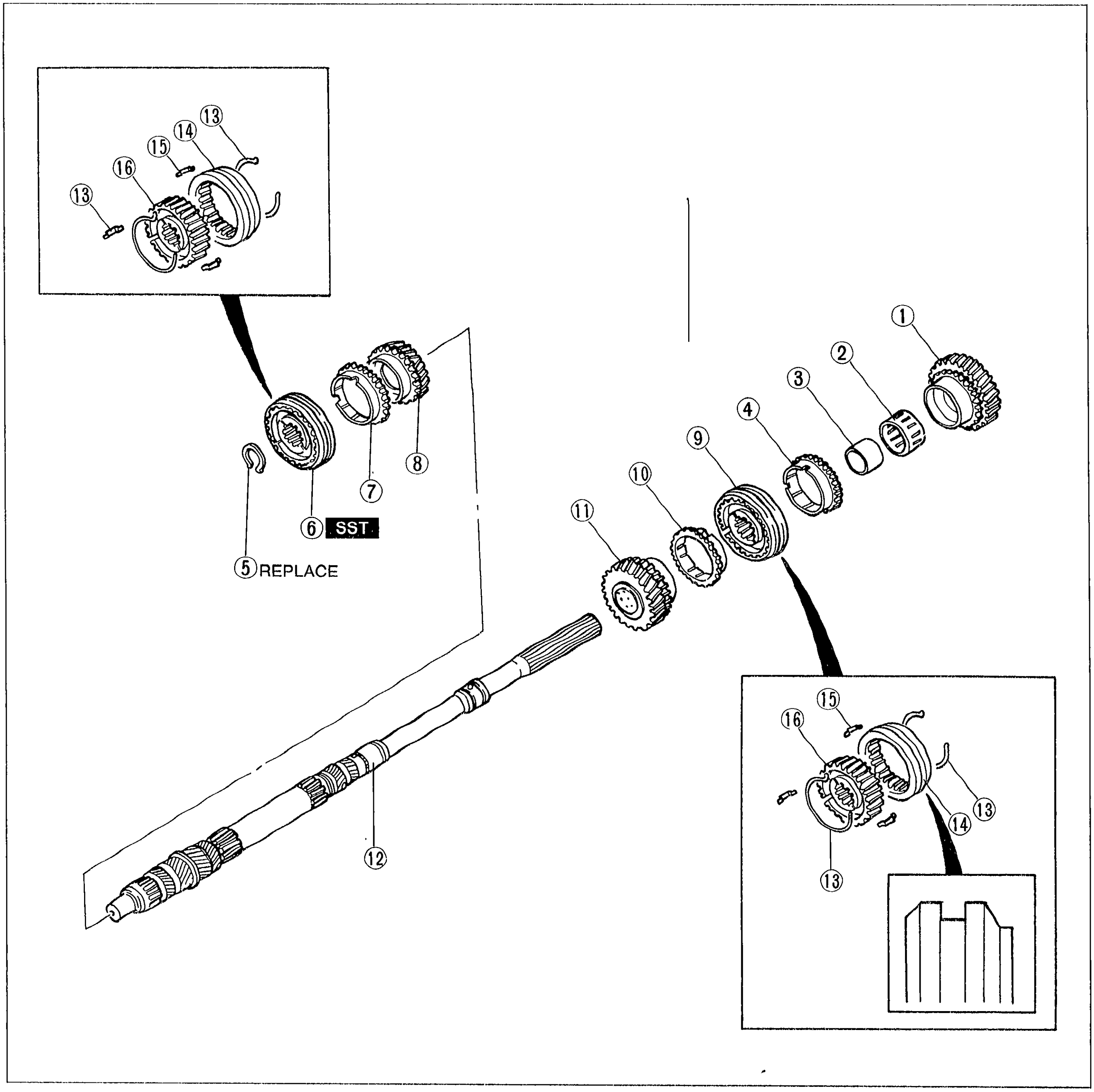
97U0J1-026

Bearing housing assembly

Remove the bearing housing by lightly tapping the countershaft with a copper hammer.

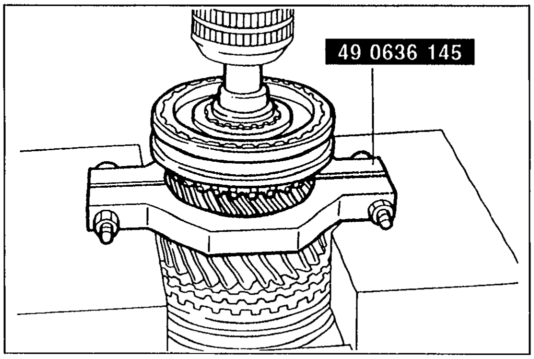
Mainshaft Parts

Disassemble in the order shown in the figure, referring to **Disassembly Note**.



05U0JX-020

1. 1st gear
   Inspection......... page J–23
2. Needle bearing
   Inspection......... page J–24
3. Inner race
4. Synchronizer ring (1st)
   Inspection......... page J–24
5. Snap ring
6. Clutch hub assembly (3rd/4th)
   Disassembly Note .... page J–20
   Inspection......... page J–23
7. Synchronizer ring (3rd)
   Inspection......... page J–24
8. 3rd gear
   Inspection......... page J–23
9. Clutch hub assembly (1st/2nd)
   Disassembly Note .... page J–20
   Inspection......... page J–23
10. Synchronizer ring (2nd)
    Inspection......... page J–24
11. 2nd gear
    Inspection......... page J–23
12. Mainshaft
    Inspection......... page J–23
13. Synchronizer key spring
14. Clutch hub sleeve
15. Synchronizer key
16. Clutch hub



97U0J1-028

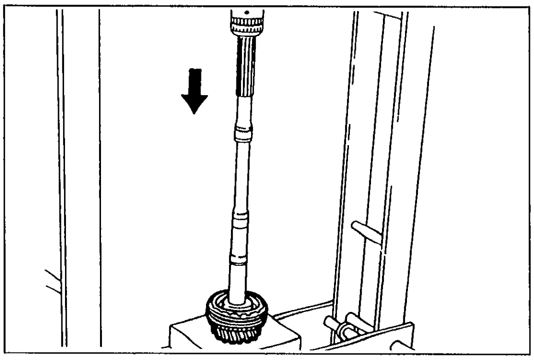
Disassembly note

Clutch hub assembly (3rd/4th)

1. Position the **SST** between 2nd and 3rd gears.

   Caution
   - **Hold the mainshaft with one hand so that it does not fall.**

2. Press the mainshaft out of the clutch hub assembly (3rd/4th) and 3rd gear.



97U0J1-029

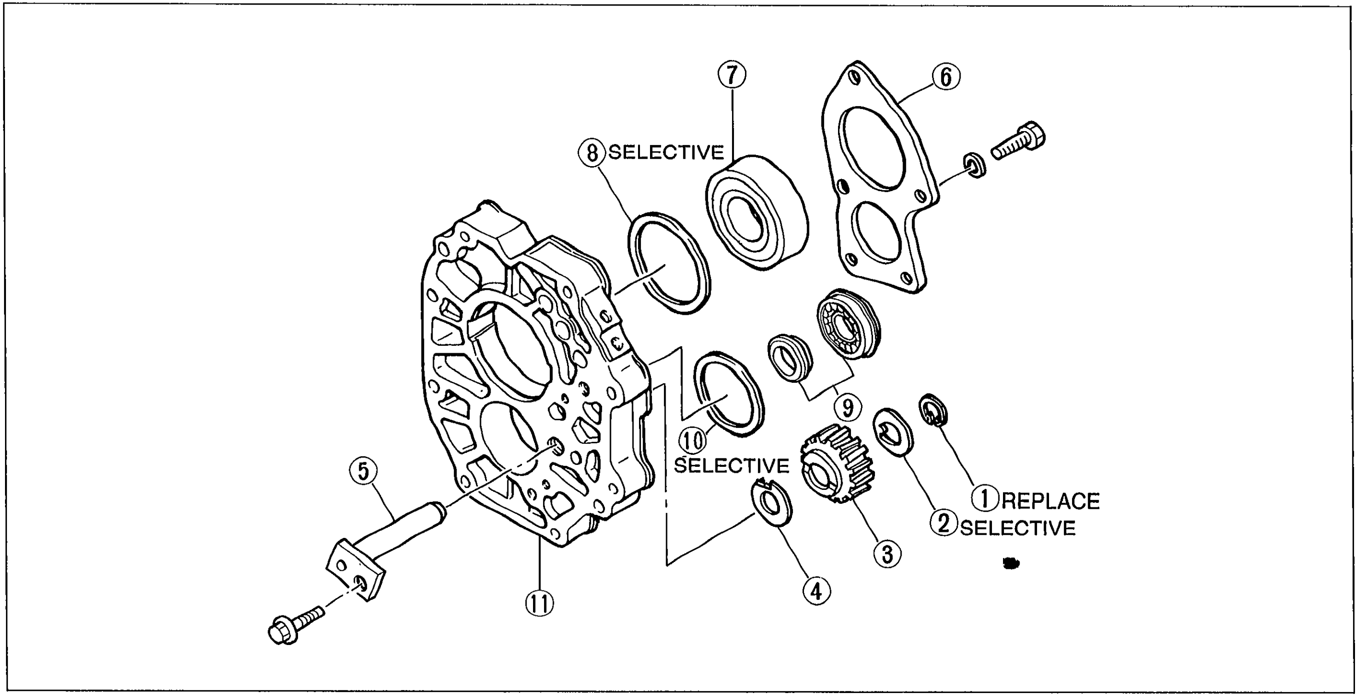
Clutch hub assembly (1st/2nd)

Caution
- **Hold the mainshaft with one hand so that it does not fall.**

Press the mainshaft out of the clutch hub assembly (1st/2nd) and 2nd gear.

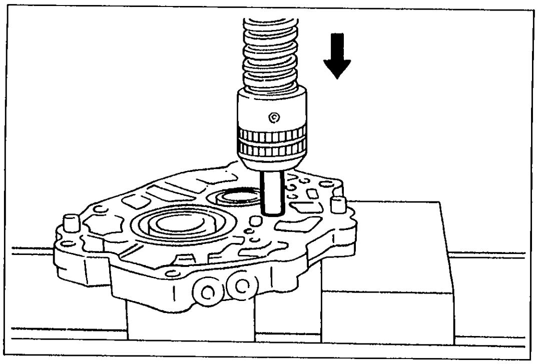
Bearing Housing Parts

Disassemble in the order shown in the figure, referring to **Disassembly Note**.



05U0JX-021

1. Snap ring
2. Adjustment washer
3. Reverse idler gear
   Inspection......... page J–24
4. Thrust washer
5. Reverse idler gear shaft
   Disassembly Note
   .... page J–21
   Inspection......... page J–24
6. Bearing cover
7. Mainshaft front bearing
   Disassembly Note
   .... page J–21
   Inspection......... page J–24
8. Adjustment shim
9. Countershaft center bearing
   Disassembly Note
   .... page J–21
   Inspection......... page J–24
10. Adjustment shim
11. Bearing housing



97U0J1-031

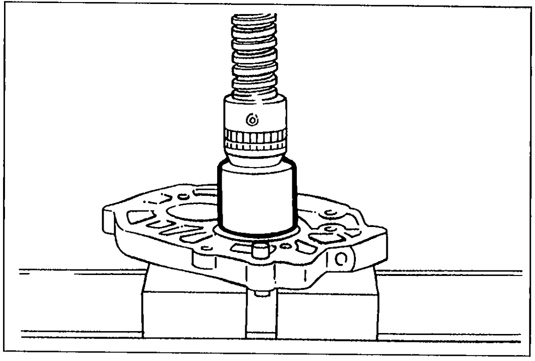
Disassembly note

Reverse idler gear shaft

Caution

- **Support the reverse idler gear shaft with one hand so that it does not fall.**

Press the reverse idler gear shaft out of the bearing housing.



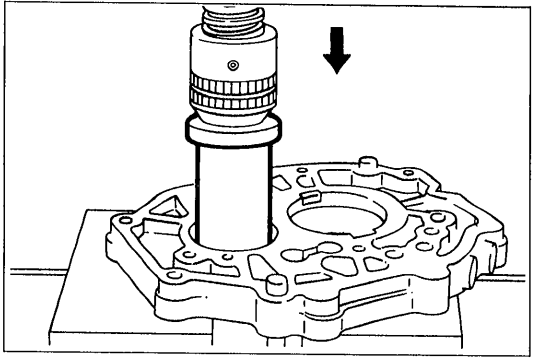
97U0J1-032

Mainshaft front bearing

Caution

- **Support the mainshaft front bearing with one hand so that it does not fall.**

Remove the mainshaft front bearing with a suitable pipe.



97U0J1-033

Countershaft center bearing

Caution

- **Support the countershaft center bearing with one hand so that it does not fall.**

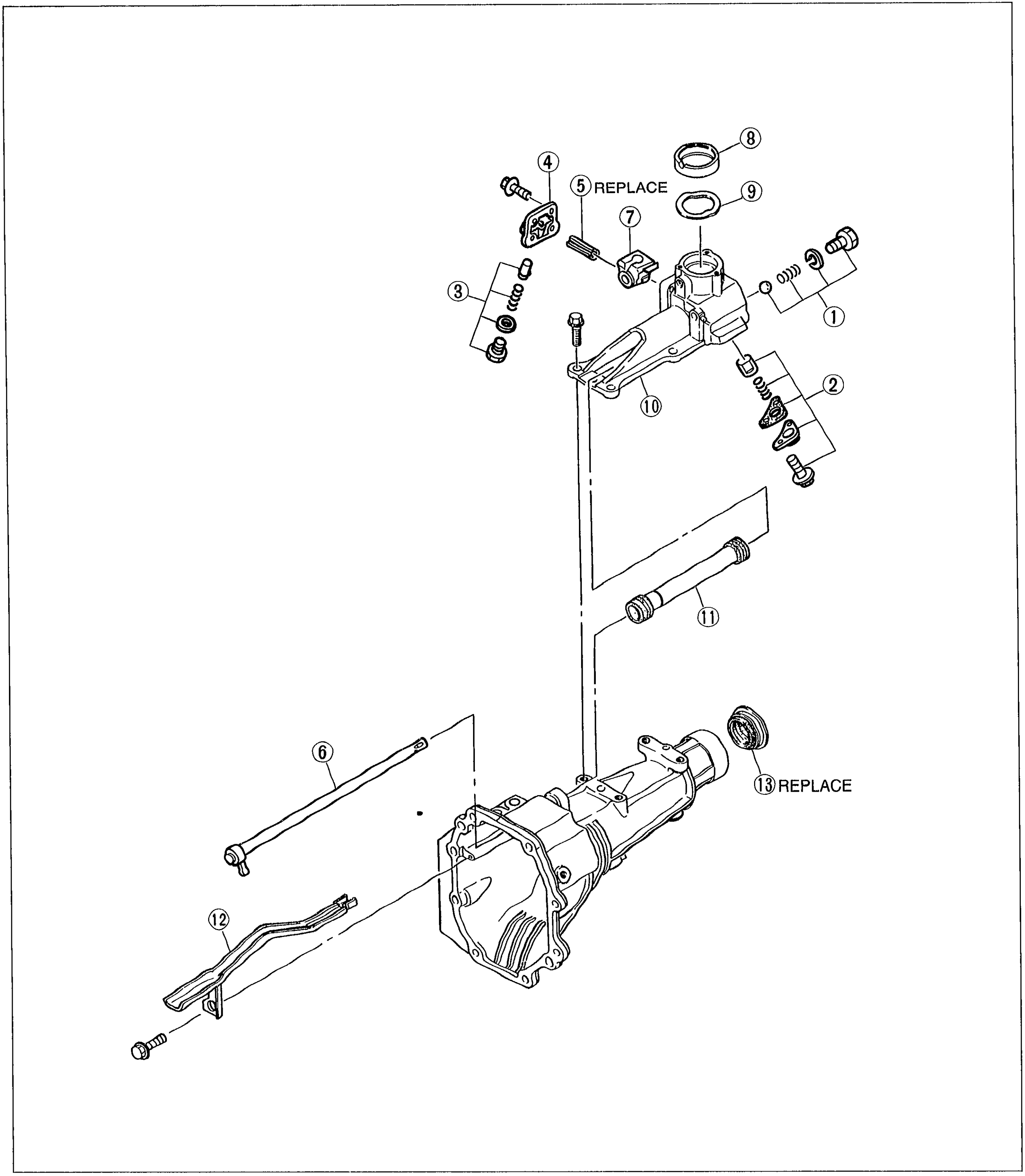
Note

- **If countershaft center bearing is replaced, replace the spacer also.**

Remove the countershaft center bearing with a suitable pipe.

Extension Housing Parts

Disassemble in the order shown in the figure.



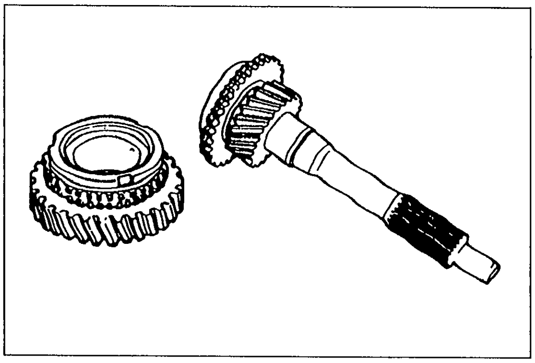
05U0JX-022

1. Steel ball, spring, and spring cap
2. Select-lock spindle, spring, and spring cap
3. Plug, spring, and pushpin
4. Blind cover
5. Roll pin
6. Control lever
7. Control lever end
8. Change bushing
9. Wave washer
10. Change control case
11. Rod cover
12. Oil passage
13. Oil seal
    Do not remove if not necessary

INSPECTION

Inspect all parts and repair or replace as necessary.

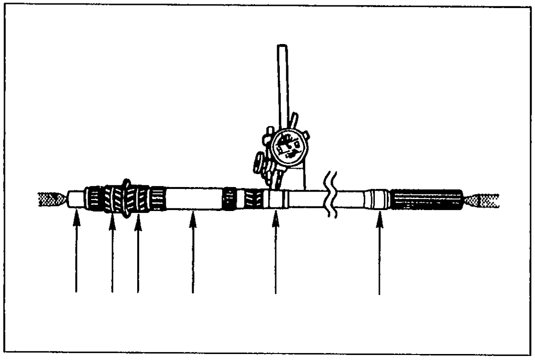
05U0JX-023



05U0JX-065

Each gear and main drive gear

1. Inspect the synchronizer cones for wear.
2. Inspect the individual gear teeth for wear and cracks.
3. Inspect the synchronizer ring matching teeth for damage and wear.
4. Inspect the main drive gear splines for damage and wear.



9MU0JX-056

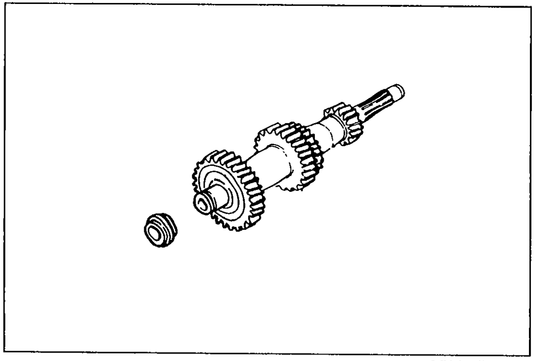
Mainshaft

1. Measure the mainshaft runout.

Maximum runout: 0.03mm (0.0012 in)

2. Inspect splines for damage or wear.
3. Measure the clearance between mainshaft and gear (or bush).

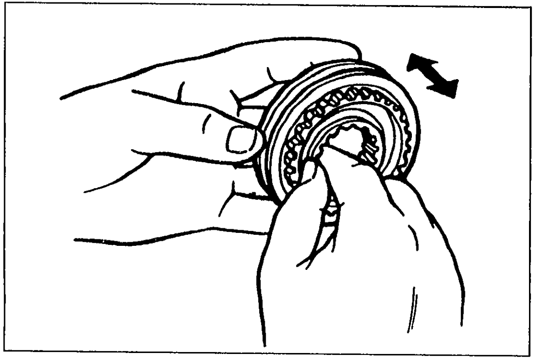
Maximum clearance: 0.15mm (0.006 in)



05U0JX-066

Countershaft

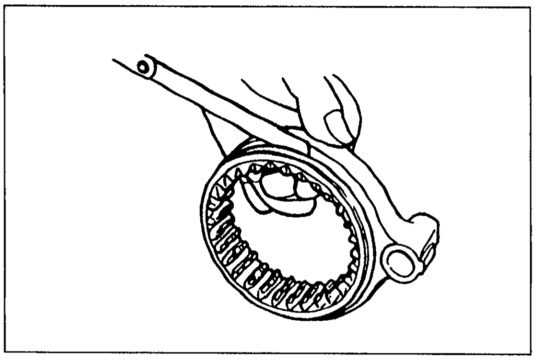
1. Inspect the gear teeth for wear and cracks.
2. Inspect the splines for damage and wear.



9MU0JX-059

Clutch hub assembly

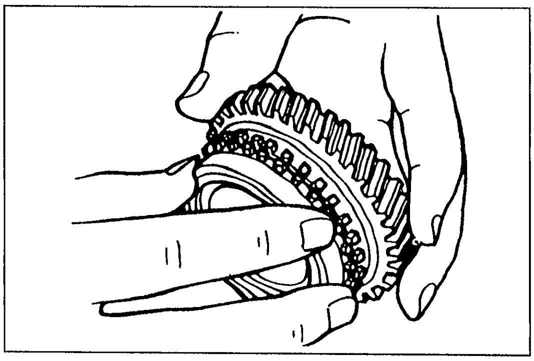
1. Inspect the clutch hub sleeve and hub operation.
2. Inspect the individual gear teeth for damge, wear, and cracks.
3. Inspect the synchronizer key for damage, wear, and cracks.



9MU0JX-060

4. Measure the clearance between hub sleeve and shift fork.

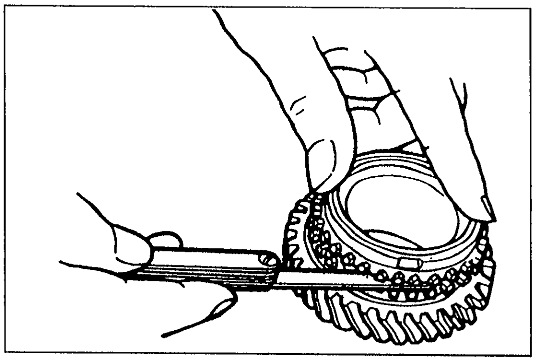
Standard clearance: 0.2—0.3mm (0.008—0.012 in)
Maximum: 0.5mm (0.020 in)



05U0JX-067

Synchronizer ring

1. Inspect the individual synchronizer ring teeth for wear and cracks.
2. Inspect the taper surface for wear and cracks.



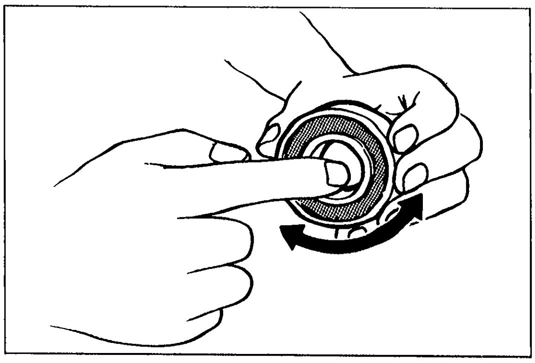
9MU0JX-062

Note

- **Set the synchronizer ring squarely in the gear; then measure around the circumference.**

3. Measure the clearance the between synchronizer ring and flank surface of gear.

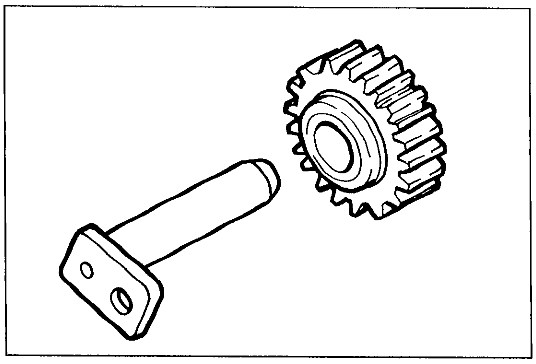
Standard clearance: 1.5mm (0.059 in)
Minimum: 0.8mm (0.031 in)



9MU0JX-063

Bearing

Inspect for damage and rough rotation.

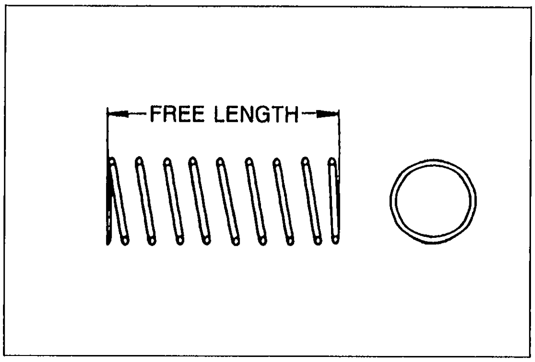


05U0JX-068

Reverse idler gear and shaft

1. Inspect the gear teeth for wear and cracks.
2. Measure the clearance between the reverse idler gear bushing and shaft.

Standard clearance:
0.02—0.05mm (0.0008—0.0020 in)
Maximum: 0.15mm (0.006 in)

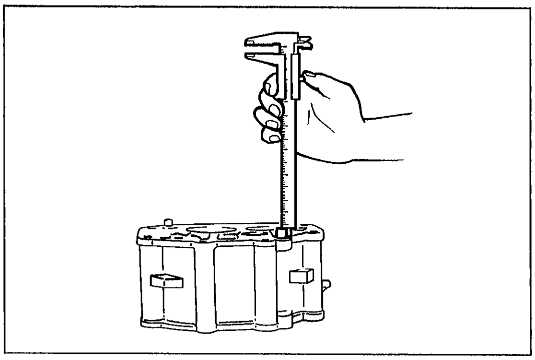


97U0J1-038

Springs

Measure the free length of the springs.

Standard free length
Shift rod (5th/Reverse) spring: 75mm (2.953 in)
Detent ball spring (1st/2nd, 3rd/4th): 22.5mm (0.886 in)
Detent ball spring (5th/Reverse): 17.0mm (0.669 in)



97U0J1-039

Intermediate housing

Measure the intermediate housing pin height.

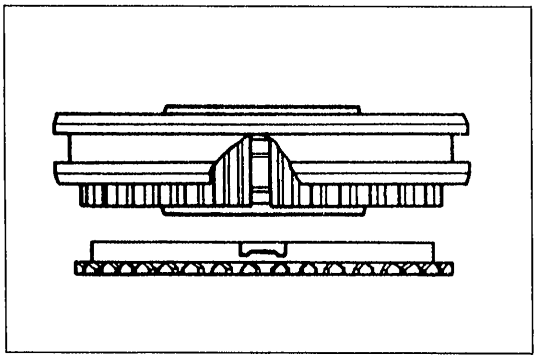
Standard height: 9.0—10.0mm (0.354—0.394 in)

ASSEMBLY

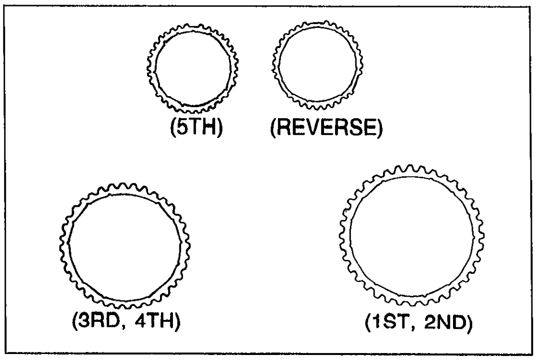
Precaution

1. All O-rings and gasket must be replaced with the new ones included in the overhaul kit.
2. Before assembly, make sure all parts are completely clean.
3. Assemble the parts within 10 minutes after applying sealant. Allow all sealant to cure at least 30 minutes after assembly before filling the transmission with transmission oil.

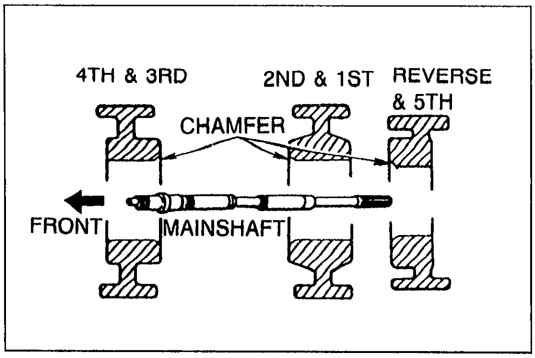
05U0JX-024



9MU0JX-067



05U0JX-025



97U0J1-041

Clutch hub

Caution

- **Align the synchronizer ring grooves with the clutch hub keys during installation.**

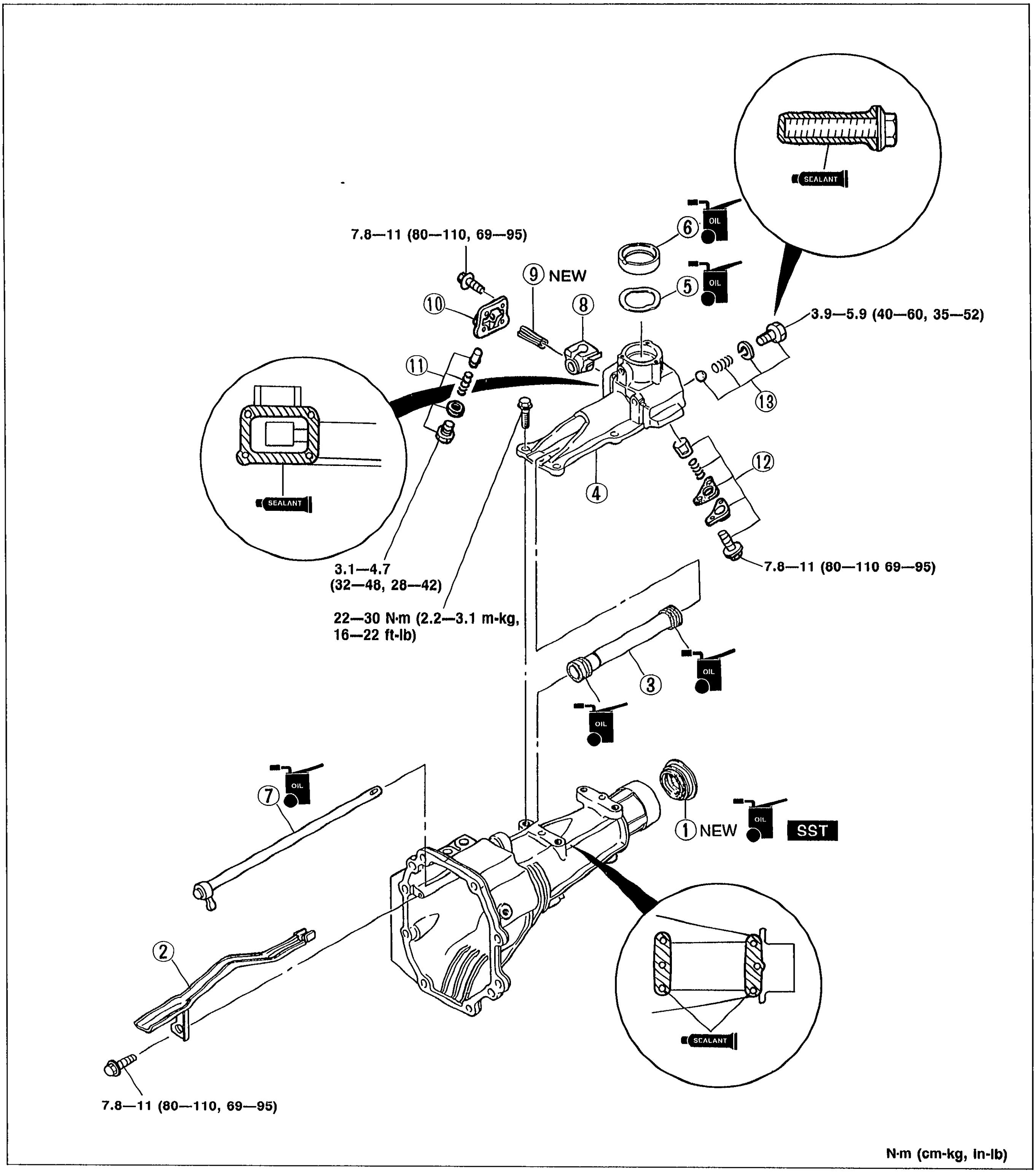
Note

- **The synchronizer rings all have the same basic shape. Carefully note these distinguishing features:**
  - **a) 5th and Reverse synchronizer rings are the smallest.**
  - **b) Reverse has 2 notches in the teeth.**
  - **c) 4th and 3rd are the next larger and are exactly the same.**
  - **d) 2nd and 1st are the biggest and are exactly the same.**

- **Press each clutch hub assembly onto the mainshaft in the proper direction.**
- **Install the clutch hubs with the chamfers of the inner gear teeth as shown.**

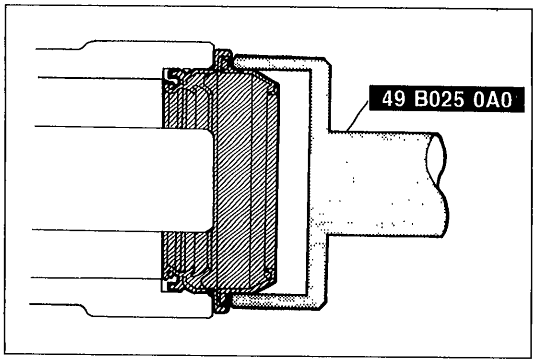
Extension Housing Parts

Assemble in the order shown in the figure, referring to **Assembly Note**.


SEALANT
OIL
⑥
⑤
7.8—11 (80—110, 69—95)
⑨ NEW
⑩
⑧
3.9—5.9 (40—60, 35—52)
⑪
⑬
⑫
④
SEALANT
7.8—11 (80—110 69—95)
3.1—4.7
(32—48, 28—42)
22—30 N·m (2.2—3.1 m-kg,
16—22 ft-lb)
③
OIL
OIL
⑦
OIL
① NEW
OIL
SST
②
SEALANT
7.8—11 (80—110, 69—95)
N·m (cm-kg, in-lb)

05U0JX-026

1. Oil seal
   Assembly Note. page J–28
2. Oil passage
3. Rod cover
   Assembly Note. page J–28
4. Change control case
5. Wave washer
6. Change bushing
7. Control lever
8. Control lever end
9. Roll pin
   Assembly Note. page J–28
10. Blind cover
11. Plug, spring, and pushpin
12. Select-lock spindle, spring, and spring cap
    Assembly Note. page J–28
13. Steel ball, spring, and spring cap

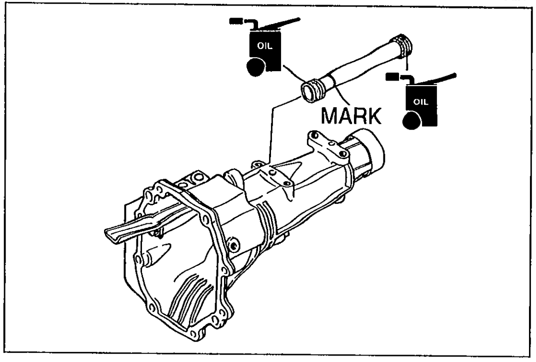


05U0JX-027

Assembly note

Oil seal

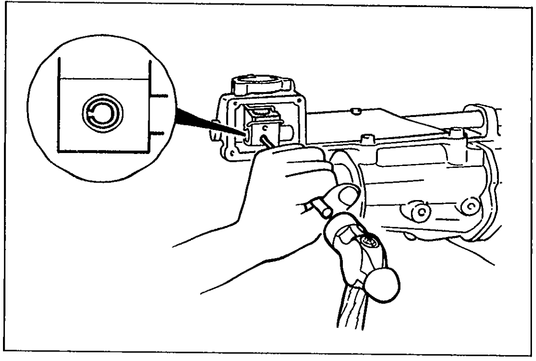
1. Apply transmission oil to outer periphery.
2. Install a new oil seal with the **SST**.



05U0JX-028

Rod cover

1. Apply transmission oil to rubbers on the rod cover.
2. Install the rod cover with the mark facing forward.



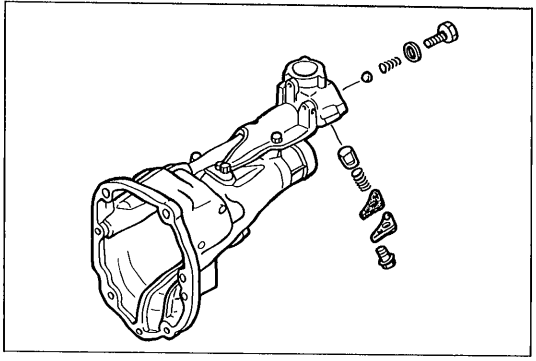
05U0JX-029

Roll pin

Caution

- **Install the roll pin with the seam facing as shown in the figure.**

Install a new roll pin into the control lever end.



05U0JX-030

Select-lock spindle, spring, and spring cap

1. Install the select-lock spindle, spring, and spring cap.

Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

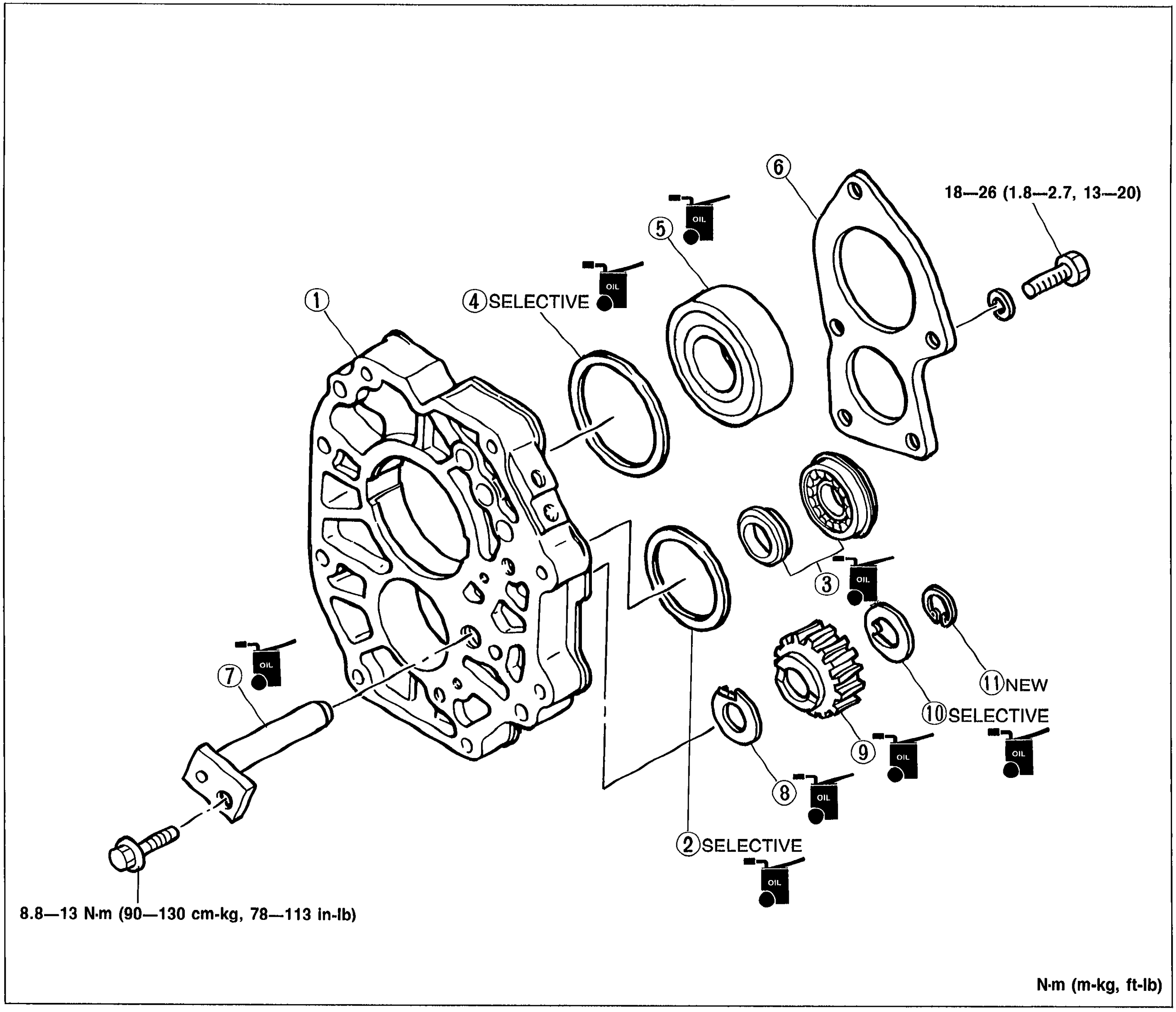
Note

- **If the select-lock spindle is not pushed down, the ball will not correctly engage the select-lock spindle.**

2. Push the select-lock spindle down by pushing on the control rod.

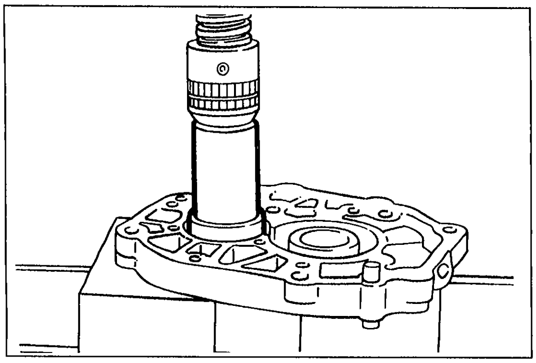
Bearing Housing Parts

Assemble in the order shown in the figure, referring to **Assembly Note**.


⑥
18—26 (1.8—2.7, 13—20)
OIL
⑤
④SELECTIVE
①
③
⑪NEW
⑩SELECTIVE
⑨
⑦
⑧
②SELECTIVE
8.8—13 N·m (90—130 cm-kg, 78—113 in-lb)
N·m (m-kg, ft-lb)

05U0JX-031

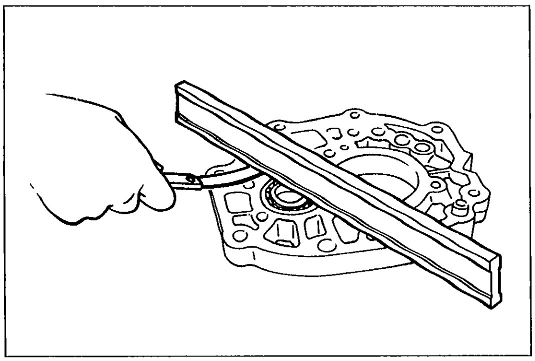
1. Bearing housing
2. Adjustment shim
   Assembly Note. page J–30
3. Countershaft center bearing
   Assembly Note. page J–29
4. Adjustment shim
   Assembly Note. page J–30
5. Mainshaft front bearing
   Assembly Note. page J–30
6. Bearing cover
7. Reverse idler gear shaft
   Assembly Note. page J–30
8. Thrust washer
9. Reverse idler gear
10. Adjustment washer
    Assembly Note. page J–30
11. Snap ring



05U0JX-032

Assembly note
Countershaft center bearing

Press the countershaft center bearing into the bearing housing with a suitable pipe.

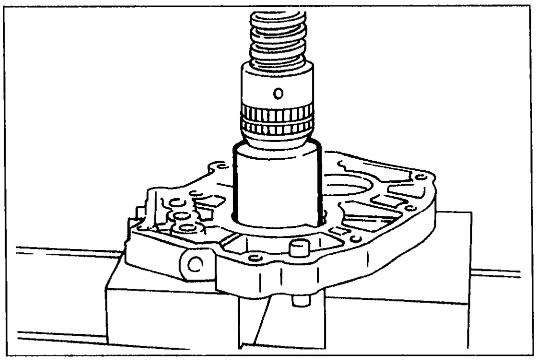


05U0JX-033

Adjustment shim

Measure the clearance between the countershaft center bearing and the bearing housing.
If not within specification, adjust the clearance by installing the correct adjustment shim(s).

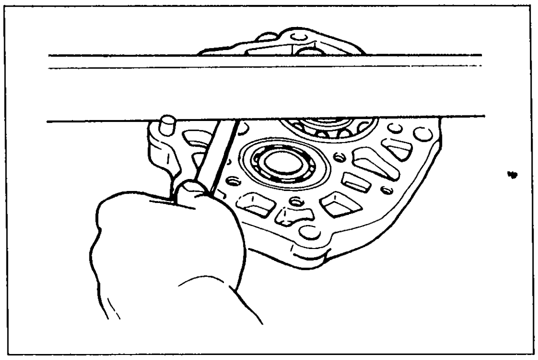
Standard clearance: 0—0.1mm (0—0.004 in)
Adjustment shim:
0.1mm (0.004 in), 0.3mm (0.012 in)



05U0JX-034

Mainshaft front bearing

Press the mainshaft front bearing into the bearing housing with a suitable pipe.

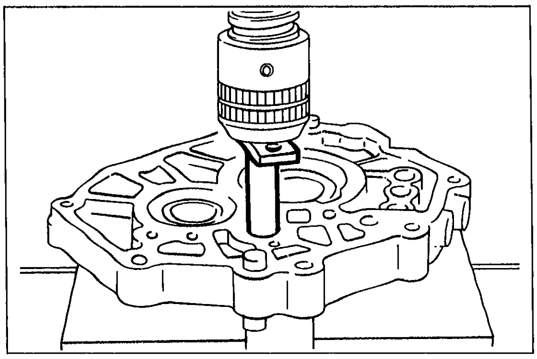


05U0JX-035

Adjustment shim

Measure the clearance between the mainshaft front bearing and the bearing housing.
If not within specification, adjust the clearance by installing the correct adjustment shim(s).

Standard clearance: 0—0.1mm (0—0.004 in)
Adjustment shim:
0.1mm (0.004 in), 0.15mm (0.006 in),
0.3mm (0.012 in)

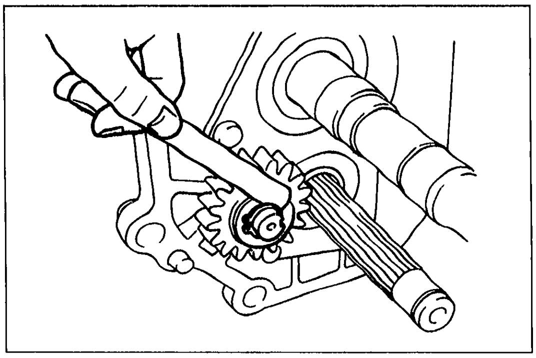


05U0JX-036

Reverse idler gear shaft

Press the reverse idler gear into the bearing housing.

Tightening torque:
7.8—11 N·m (80—110 cm-kg, 69—95 in)



05U0JX-037

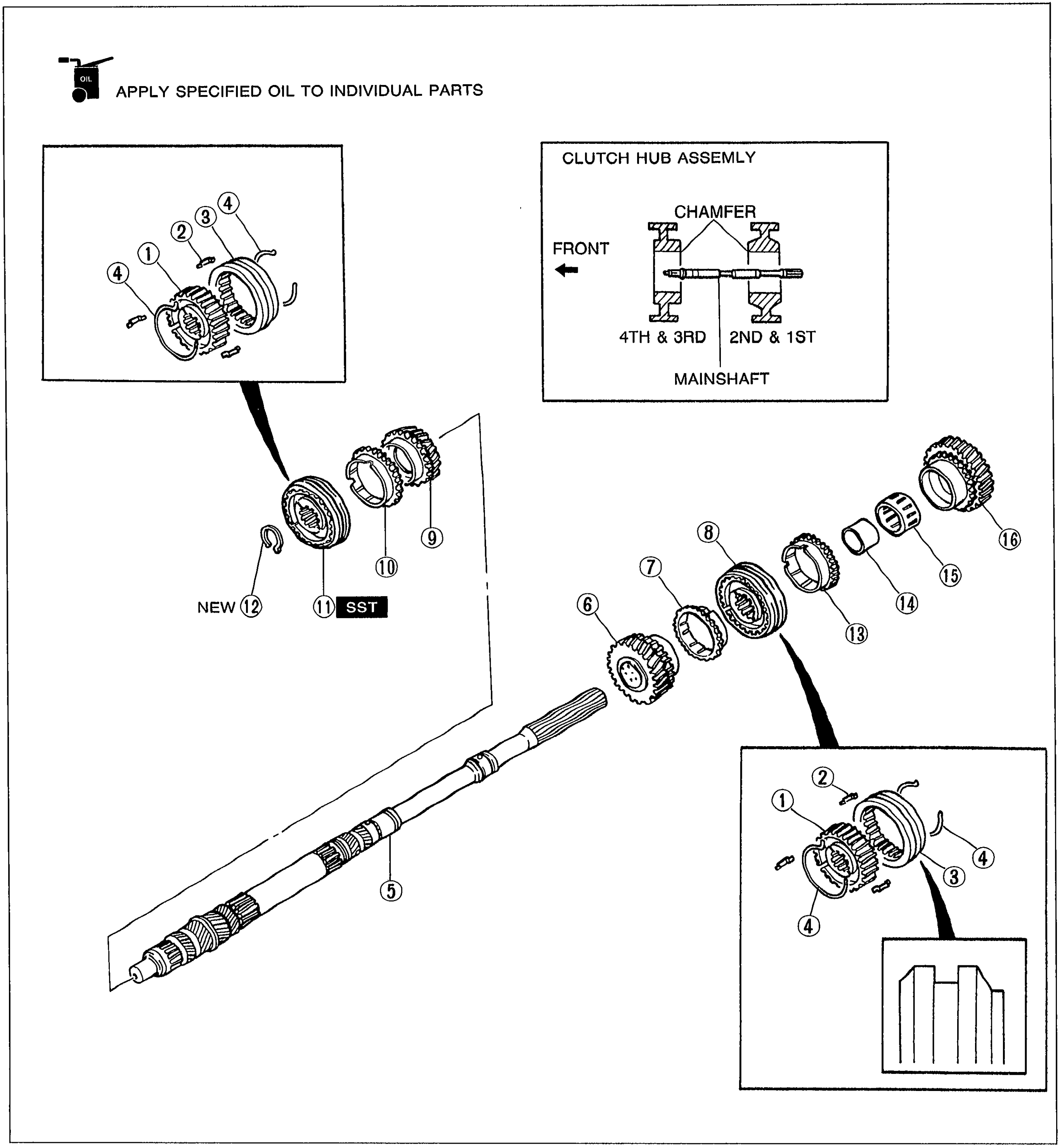
Adjustment washer

Measure the clearance between the adjustment washer and snap ring.
If not within specification, adjust the clearance by installing the correct adjustment washer.

Maximum clearance: 0.1mm (0.004 in)
Adjustment washer:
2.6mm (0.102 in), 2.8mm (0.110 in), 3.0mm (0.118 in)

Mainshaft Parts

Assemble in the order shown in the figure, referring to **Assembly Note**.

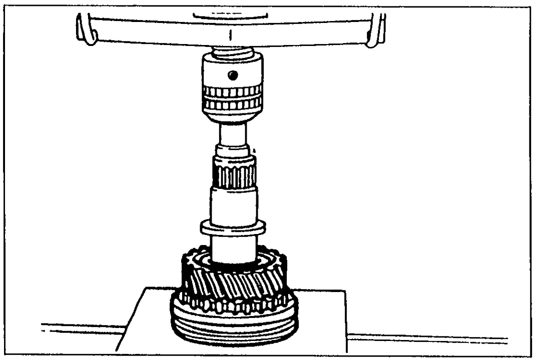

OIL
APPLY SPECIFIED OIL TO INDIVIDUAL PARTS
CLUTCH HUB ASSEMLY
CHAMFER
FRONT
4TH & 3RD
2ND & 1ST
MAINSHAFT
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
NEW ⑫
⑪ SST
⑬
⑭
⑮
⑯

05U0JX-038

1. Clutch hub
2. Synchronizer key
3. Clutch hub sleeve
4. Synchronizer key spring
5. Mainshaft
6. 2nd gear
   Assembly Note. page J–32
7. Synchronizer ring
8. Clutch hub assembly (1st/2nd)
   Assembly Note. page J–32
9. 3rd gear
   Assembly Note. page J–32
10. Synchronizer ring (3rd)
11. Clutch hub assembly (3rd/4th)
    Assembly Note. page J–32
12. Snap ring
    Assembly Note. page J–32
13. Synchronizer ring
14. Inner race
    Assembly Note. page J–32
15. Needle bearing
    Assembly Note. page J–32
16. 1st gear
    Assembly Note. page J–32

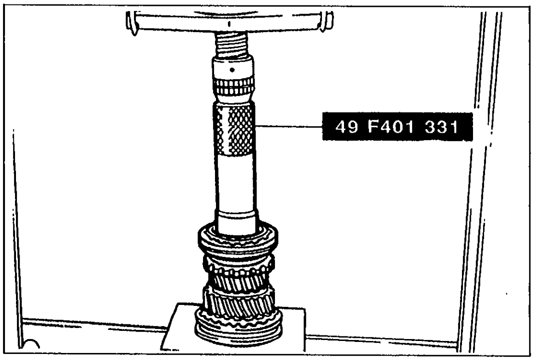
Assembly note

Clutch hub assembly



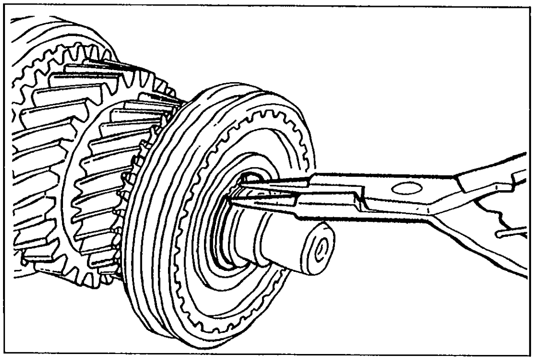
97U0J1-052

1. Set the 2nd gear and the 1st/2nd clutch hub assembly on the mainshaft, then press in the mainshaft.



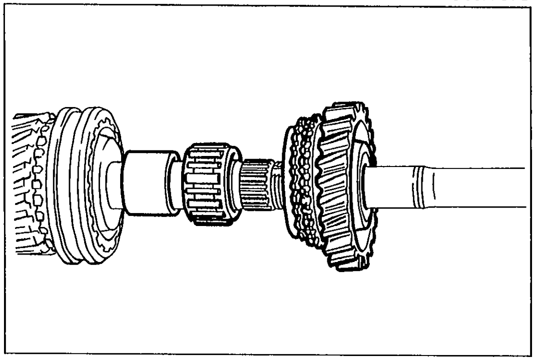
97U0J1-053

2. Set the 3rd gear and 3rd/4th clutch hub assembly on the mainshaft, then press on the 3rd/4th clutch hub assembly with the **SST**.



9MU0JX-073

3. Install a new snap ring on the front of the mainshaft.



97U0J1-054

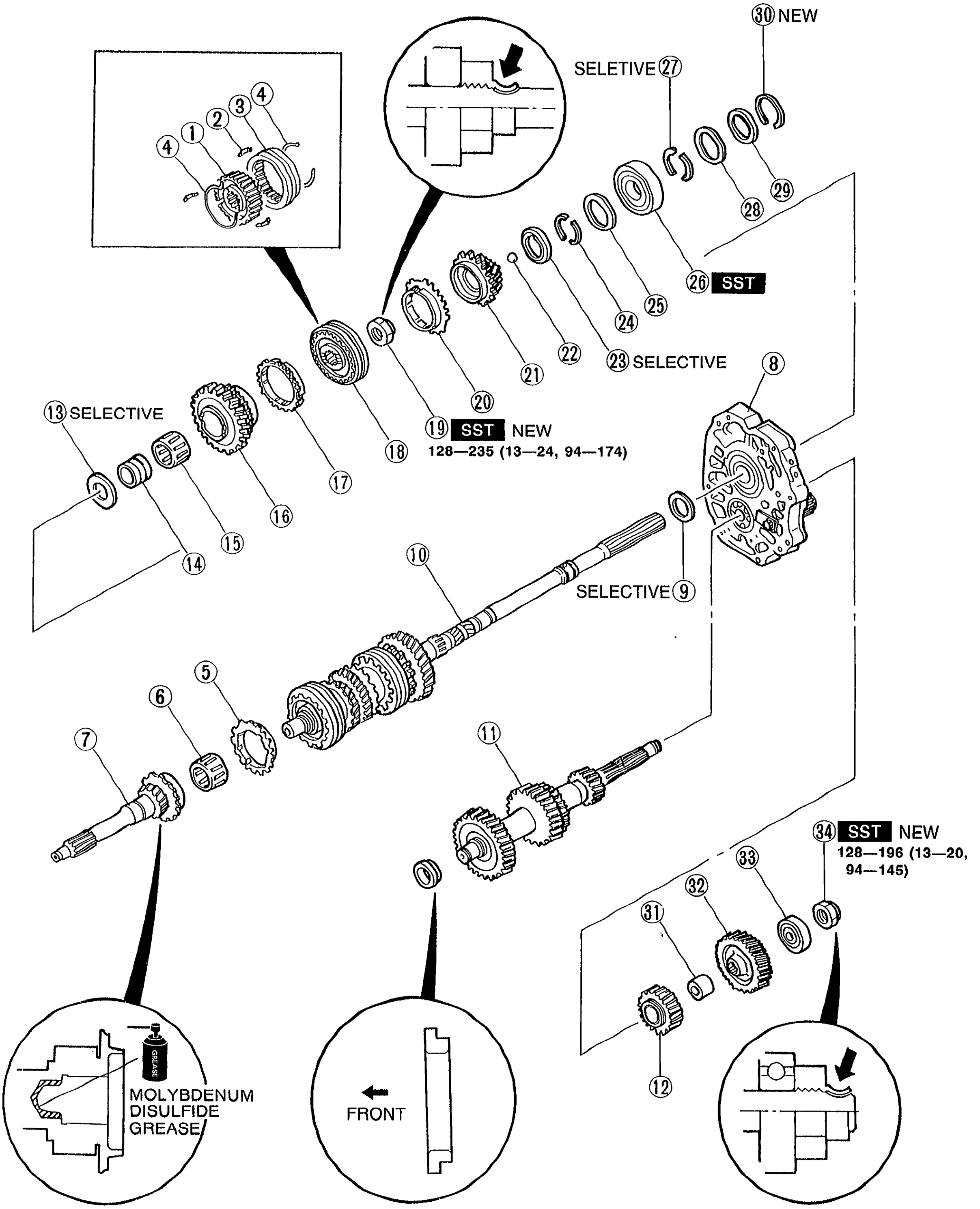
4. Install the inner race, needle bearing, and 1st gear.

MEMO

Mainshaft and Countershaft Parts

Assemble in the order shown in the figure, referring to **Assembly Note**.

APPLY SPECIFIED OIL TO INDIVIDUAL PARTS EXCEPT LOCKNUTS



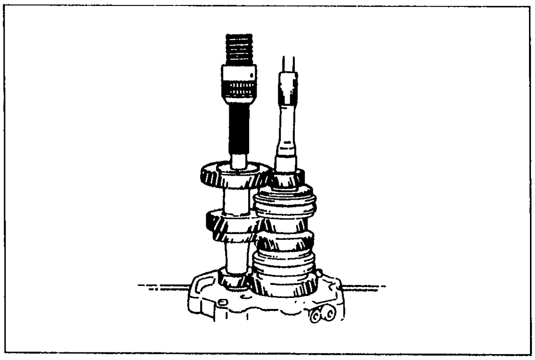
OIL
③ ④ ② ① ④
SELETIVE ㉗
㉚ NEW
㉙
㉘
㉖ SST
㉕
㉔
㉓ SELECTIVE
㉒
㉑
⑳
⑲ SST NEW
128—235 (13—24, 94—174)
⑧
⑬ SELECTIVE
⑱
⑰
⑯
⑮
⑭
⑩
SELECTIVE ⑨
⑤
⑥
⑦
⑪
㉞ SST NEW
128—196 (13—20, 94—145)
㉝
㉜
㉛
⑫
GREASE
MOLYBDENUM DISULFIDE GREASE
FRONT

N·m (m-kg, ft-lb)

97U0J1-055

1. Clutch hub
2. Synchronizer key
3. Clutch hub sleeve
4. Synchronizer key spring
5. Synchronizer ring (4th)
6. Needle bearing
7. Main drive gear
8. Bearing housing assembly
9. Washer
10. Mainshaft gear assembly
    Assembly Note. page J–35
11. Countershaft
    Assembly Note. page J–35
12. Counter reverse gear
13. Washer
14. Inner race
15. Needle bearing
16. Reverse gear
17. Synchronizer ring (Reverse)
18. Clutch hub assembly
19. Locknut (Mainshaft)
    Assembly Note. page J–35
20. Synchronizer ring (5th)
21. 5th gear
22. Steel ball
23. Thrust lock washer
    Assembly Note. page J–36
24. C-washer
    Assembly Note. page J–36
25. Retaining ring
    Assembly Note. page J–36
26. Mainshaft rear bearing
    Assembly Note. page J–36
27. C-washer
    Assembly Note. page J–36
28. Retaining ring
    Assembly Note. page J–36
29. Washer
    Assembly Note. page J–36
30. Snap ring
31. Spacer
32. Counter 5th gear
33. Countershaft rear bearing
    Assembly Note. page J–36
34. Locknut (Countershaft)
    Assembly Note. page J–37

05U0JX-039

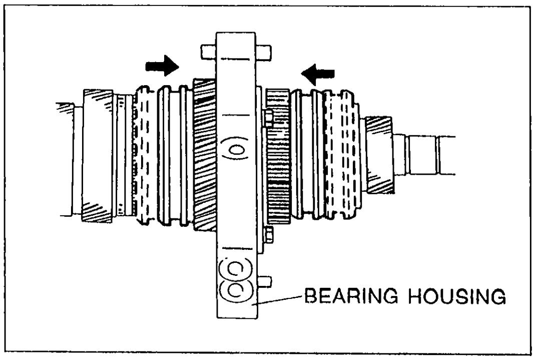


97U0J1-057

Assembly note

Mainshaft and countershaft

1. Place the mainshaft gear assembly and the countershaft on the bearing housing.
2. Use a suitable bar to press in the countershaft.



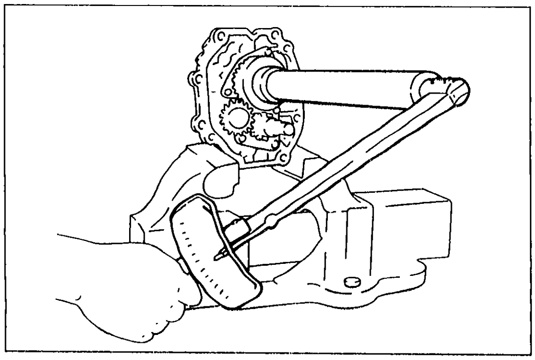
97U0J1-058

Locknut (Mainshaft)

Note

- **Use pads in the vise to prevent damaging the bearing housing.**

1. Secure the bearing housing in a vise.
2. Slide the clutch hub sleeves onto 1st and reverse gears to lock the mainshaft.

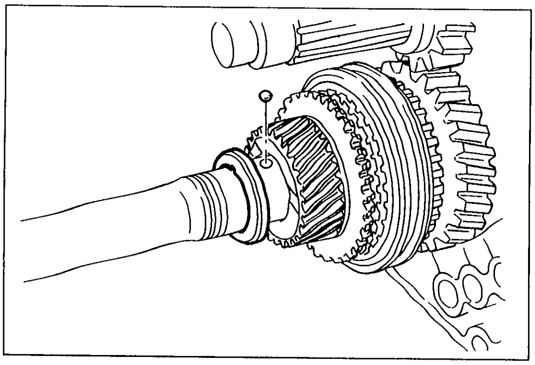


97U0J1-059

3. Tighten a new locknut with the **SST**.

   Tightening torque:
   128—235 N·m (13—24 m-kg, 94—174 ft-lb)

4. Use a chisel to stake the locknut.

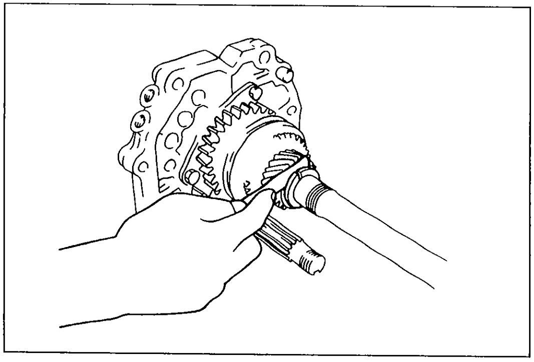

97U0J1-060

Thrust lock washer

1. Insert the steel ball and the thrust lock washer for 5th gear.

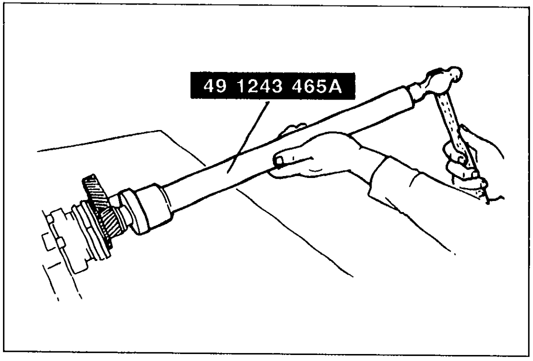
Caution
- **Use only 3.0mm (0.118 in) C-washers, otherwise; it may not be possible to install the rear C-washers.**
- **The two C-washers must be the same thickness, or bearing failure will result.**

2. Install the C-washers and hold them with the retaining ring.


05U0JX-040

3. Measure the clearance between the thrust lock washer and C-washers (5th gear end play).
   If the end play is not within specification, adjust the clearance by installing the correct thrust lock washer.

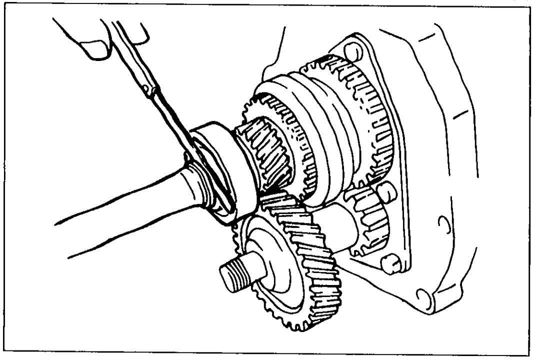
Standard play: 0.1—0.3mm (0.004— 0.012 in)
Thrust lock washer thickness:
6.2mm (0.244 in), 6.4mm (0.252 in),
6.5mm (0.256 in), 6.6mm (0.260 in)



97U0J1-062

Mainshaft rear bearing

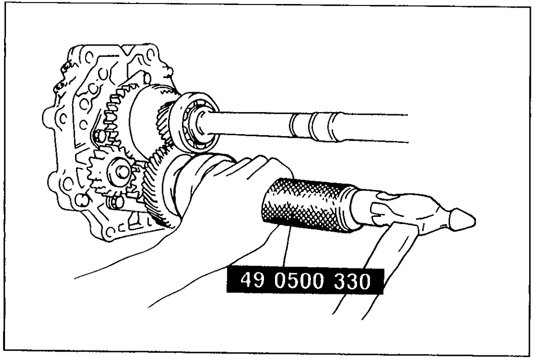
1. Drive on the mainshaft rear bearing with the **SST**. Install the C-washers, retaining ring, and washer. Secure them with a new snap ring.


05U0JX-041

Caution
- **Verify there is no clearance between the mainshaft rear bearing and the C-washers.**

2. Measure the clearance between the C-washers and washer. If end play is not within specification, adjust the clearance by installing the proper C-washers.

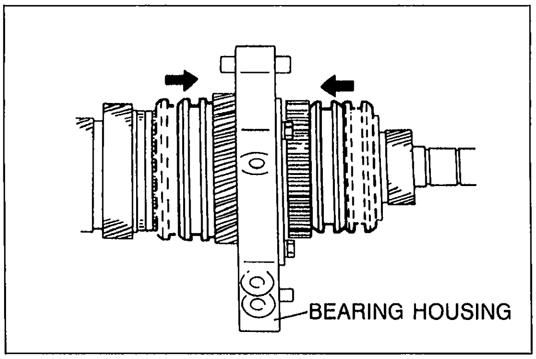
Standard play: 0—0.1mm (0—0.004 in)
C-washer thickness:
2.9mm (0.114 in), 3.0mm (0.118 in),
3.1mm (0.122 in), 3.2mm (0.126 in)



97U0J1-064

Countershaft rear bearing

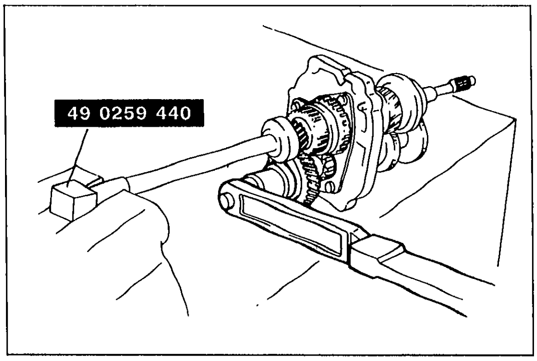
Drive the countershaft rear bearing onto the countershaft with the **SST**.



97U0J1-065

Locknut (Countershaft)

1. Shift the clutch hub sleeves to 1st gear and reverse gear to put the gears in a double-engaged condition.



05U0JX-042

Note

- **Use pads in the vise to prevent damaging the SST.**

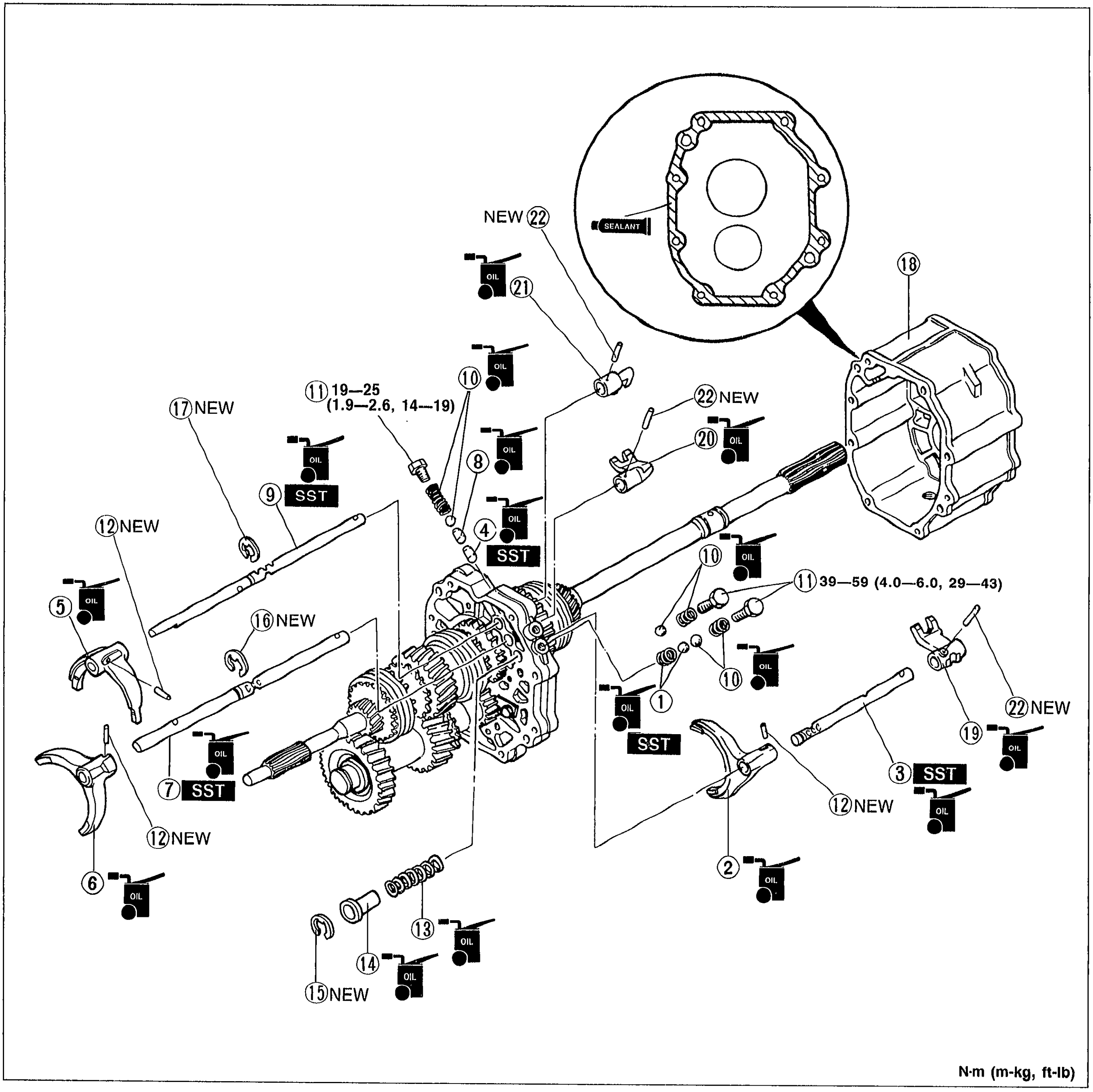
2. Connect the **SST** to the mainshaft and tighten it securely in a vise.
3. Tighten a new locknut.

Tightening torque:
128—196 N·m (13—20 m-kg, 94—145 ft-lb)

4. Use a chisel to stake the locknut.

Shift Fork and Shift Rod Parts

Assemble in the order shown in the figure, referring to **Assembly Note**.



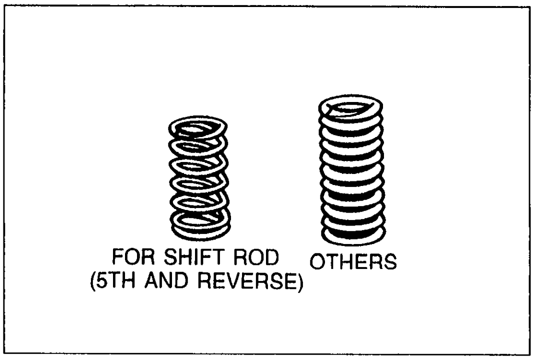
NEW ㉒
SEALANT
⑱
㉑
⑩
⑪ 19—25 (1.9—2.6, 14—19)
⑰NEW
㉒NEW
⑳
⑨ SST
⑧
④ SST
⑫NEW
⑩
⑪ 39—59 (4.0—6.0, 29—43)
⑤
⑯NEW
⑩
① SST
㉒NEW
⑲
③ SST
⑫NEW
⑦ SST
⑫NEW
②
⑥
⑬
⑭
⑮NEW
OIL
N·m (m-kg, ft-lb)

05U0JX-043

1. Spring and ball
   Assembly Note. page J–39
2. 5th/Reverse shift fork
   Assembly Note. page J–39
3. 5th/Reverse shift rod
   Assembly Note. page J–39
4. Interlock pin
   Assembly Note. page J–39
5. 1st/2nd shift fork
   Assembly Note. page J–40
6. 3rd/4th shift fork
   Assembly Note. page J–40
7. 3rd/4th shift rod
   Assembly Note. page J–40
8. Interlock pin
   Assembly Note. page J–40
9. 1st/2nd shift rod
10. Ball and spring
11. Cap plug
12. Roll pin
    Assembly Note. page J–40
13. Spring
    Assembly Note. page J–40
14. Spacer
    Assembly Note. page J–40
15. Clip
    Assembly Note. page J–40
16. Clip
    Assembly Note. page J–40
17. Clip
    Assembly Note. page J–40
18. Intermediate housing
    Assembly Note. page J–41
19. 5th/Reverse shift rod end
20. 3rd/4th shift rod end
21. 1st/2nd shift rod end
22. Roll pin
    Assembly Note. page J–41

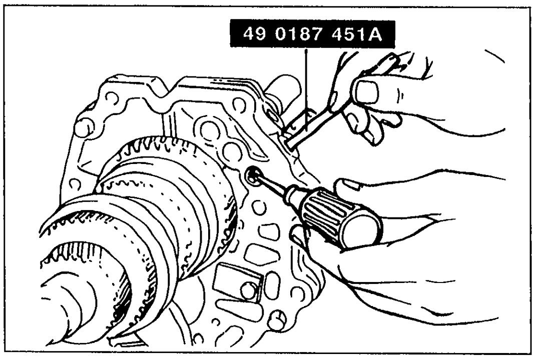
Assembly note
Spring and ball

Note
- **There are 2 types of springs; be sure to install them correctly.**


FOR SHIFT ROD (5TH AND REVERSE)
OTHERS

05U0JX-044

1. Insert the spring and ball (5th/Reverse) into the bearing housing.

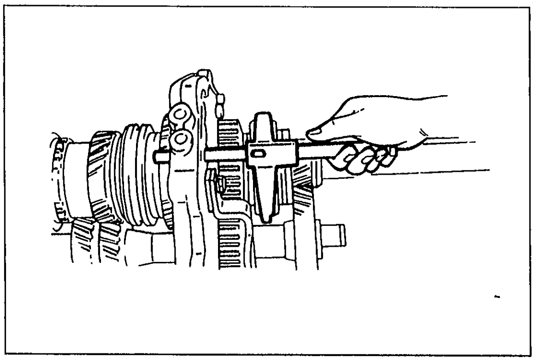

49 0187 451A

05U0JX-045

2. Press the spring and ball (5th/Reverse) with a screwdriver and the **SST** to install the shift rod.

Shift fork and rod

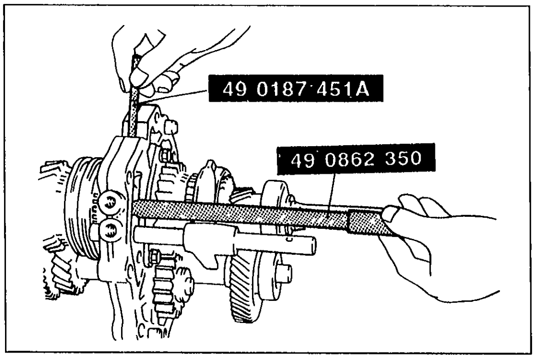
Install the 5th/Reverse shift fork and 5th/Reverse shift rod into the bearing housing.



05U0JX-046

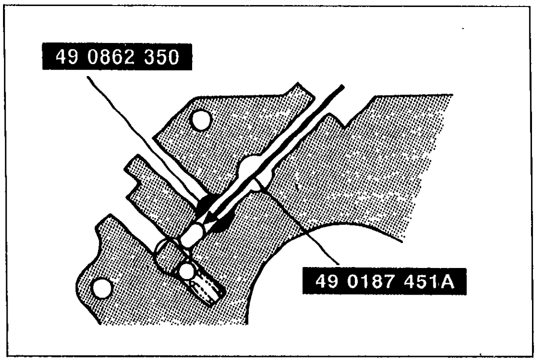
Interlock pin

1. Position the interlock pin into the bearing housing with the **SST**.

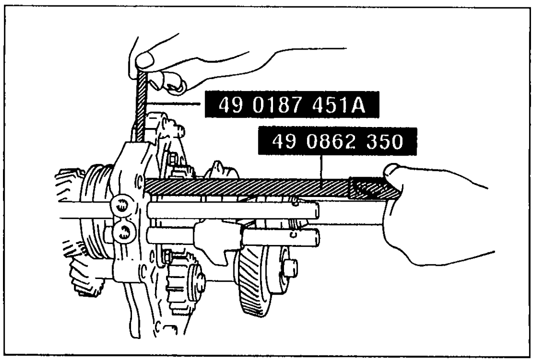

49 0187 451A
49 0862 350

05U0JX-047

2. Verify that the interlock pin is correctly installed.


49 0862 350
49 0187 451A

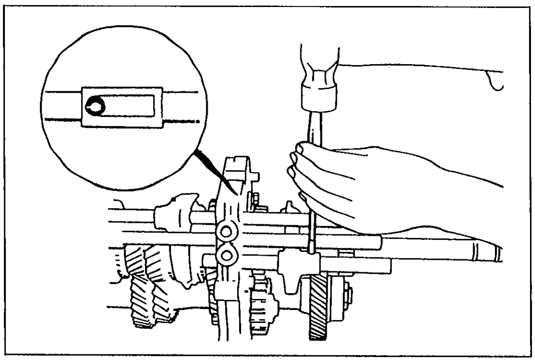
05U0JX-048



05U0JX-049

Shift fork and rod, interlock pin

1. Set the 1st/2nd shift fork onto the 1st/2nd clutch hub assembly.
2. Install the 3rd/4th shift fork and 3rd/4th shift rod, and install the interlock pin into the bearing housing as in Step 4.



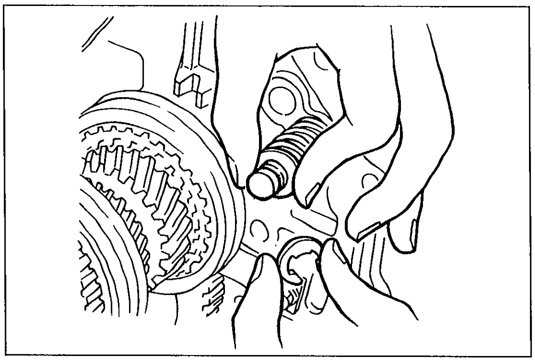
05U0JX-050

Roll pin

Caution

- **Install the roll pin with the seam facing as shown in the figure.**

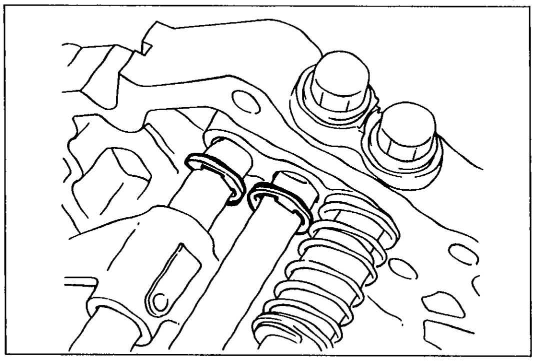
Install a new roll pin into each shift fork.



05U0JX-051

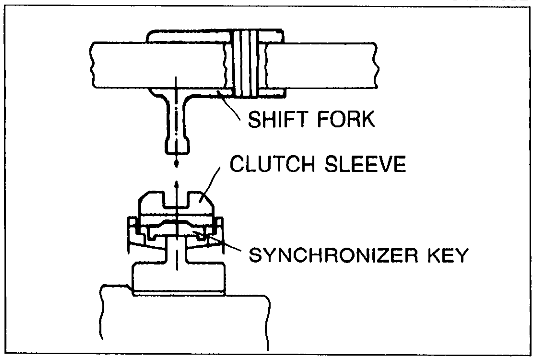
Spring, spacer, clip

1. Slide the spring and spacer onto the 5th/Reverse shift rod. While pressing the spacer, install a new clip.



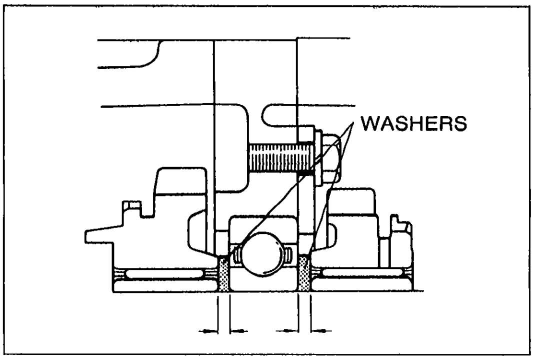
05U0JX-052

2. Install new clips to the 3rd/4th shift rod and 1st/2nd shift rod.



05U0JX-053

3. Verify that the centers of the shift fork and clutch hub sleeve are aligned properly.
   If they are not, select the proper washer for between 1st gear and the mainshaft front bearing, and between reverse gear and the mainshaft front bearing.

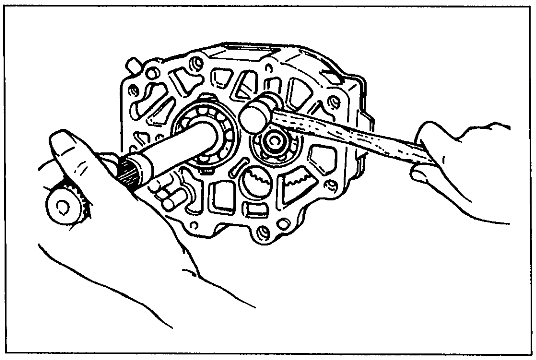


05U0JX-054

Caution
- **The total thickness of the front and rear washers should be 5.9—6.0mm (0.2323—0.2362 in).**

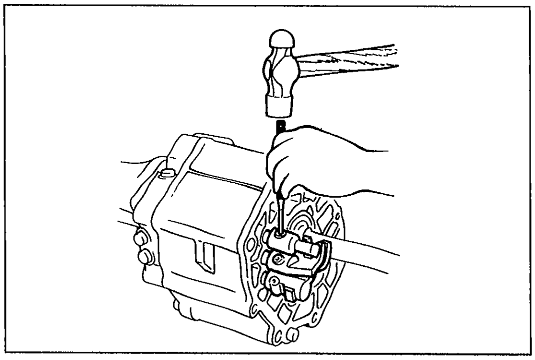
4. The following washer thicknesses are available.

2.2mm (0.0866 in)	3.2mm (0.1260 in)
2.7mm (0.1063 in)	3.7mm (0.1457 in)
3.0mm (0.1181 in)	



97U0J1-080

Intermediate housing
1. Apply sealant to the contacting surfaces of the intermediate housing and bearing housing.
2. Mount the intermediate housing to the bearing housing by tapping it lightly with a plastic hammer.



05U0JX-055

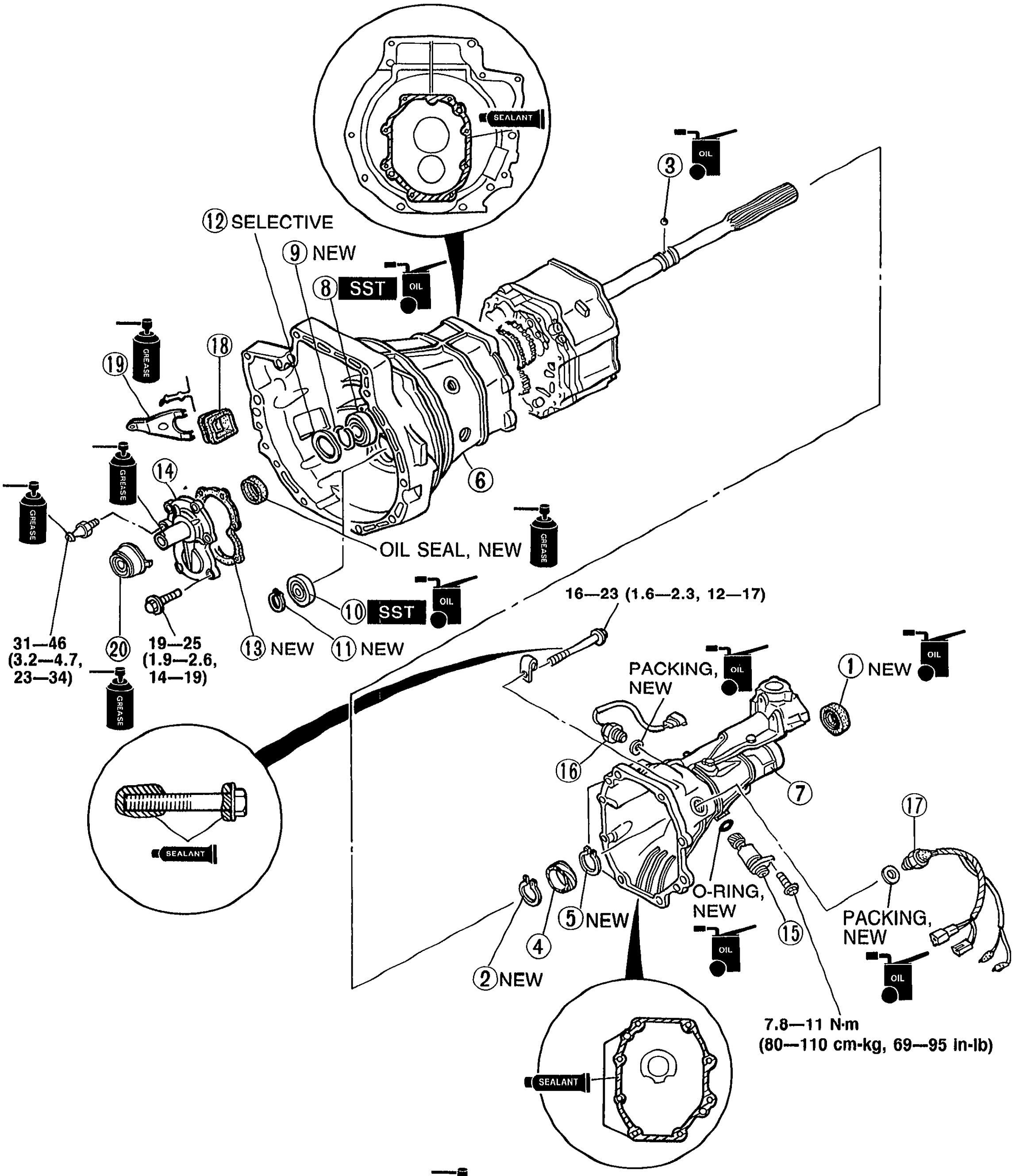
Roll pin

Caution
- **Install the roll pin with the seam facing forward.**

Install a new roll pin into each shift rod end.

Housing Components

1. Assemble in the order shown in the figure, referring to **Assembly Note**.
2. Check the gearshift lever operation.


SEALANT
③ OIL
⑫ SELECTIVE
⑨ NEW
⑧ SST OIL
⑲ GREASE
⑱
⑥
⑭ GREASE
GREASE
OIL SEAL, NEW GREASE
⑩ SST OIL
16—23 (1.6—2.3, 12—17)
31—46 (3.2—4.7, 23—34)
⑳ GREASE
19—25 (1.9—2.6, 14—19)
⑬ NEW
⑪ NEW
PACKING, NEW OIL
① NEW OIL
⑯
⑦
⑰
SEALANT
O-RING, NEW OIL
⑤ NEW
④
② NEW
⑮
PACKING, NEW OIL
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
SEALANT

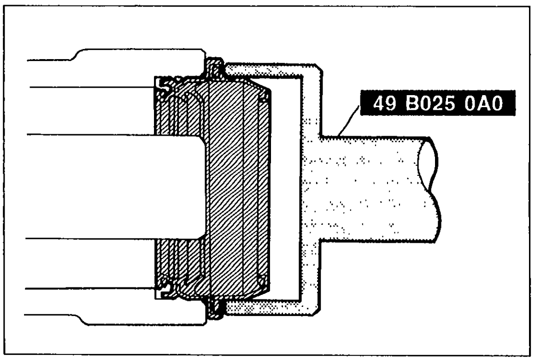
GREASE (MORI WHITE TA NO.2 OR EQUIVALENT ORGANIC MOLYBDENUM)

N·m (m-kg, ft-lb)

05U0JX-056

1. Oil seal
   Assembly Note. page J–43
2. Snap ring
3. Steel ball
4. Speedometer drive gear
5. Snap ring
6. Transmission case
7. Extension housing
   Assembly Note. page J–43
8. Main drive gear bearing
   Assembly Note. page J–43
9. Snap ring
10. Countershaft front bearing
    Assembly Note. page J–43
11. Snap ring
12. Adjustment shim
    Assembly Note. page J–44
13. Gasket
14. Front cover
15. Speedometer driven gear
16. Neutral switch
17. Back-up light switch
18. Boot
19. Release fork
    Assembly Note. page J–44
20. Release bearing
    Assembly Note. page J–44

05U0JX-057

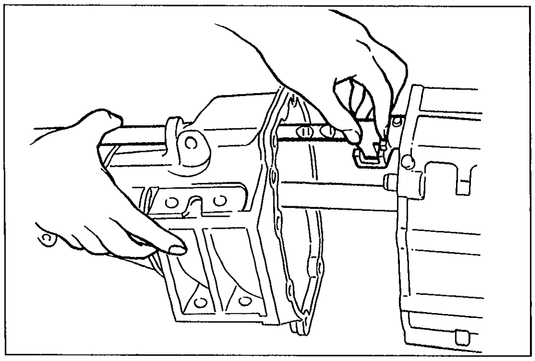


05U0JX-058

Assembly note

Oil seal

1. Apply transmission oil to outer periphery.
2. Install a new oil seal with the **SST**.

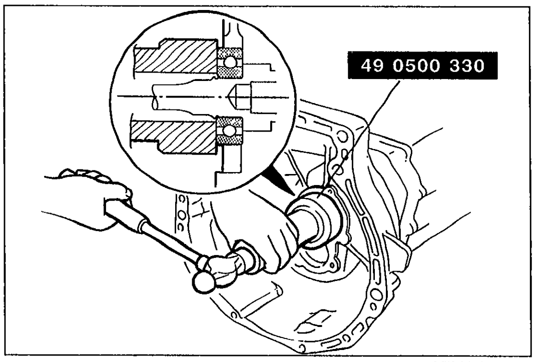


05U0JX-059

Extension housing

1. Apply sealant to the contact surfaces of the bearing housing and transmission case.
2. Align the inner shift lever and shift rod end groove, and install the extension housing.
3. Apply sealant to the bolt threads, and install the bolts.

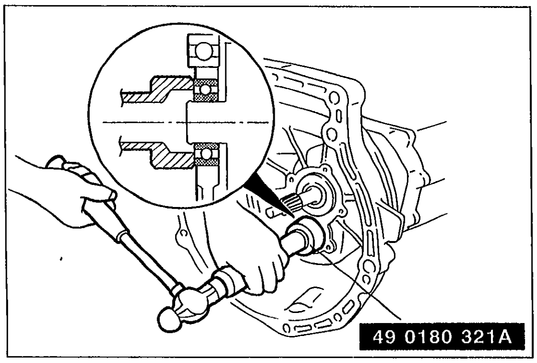
Tightening torque:
16—23 N·m (1.6—2.3 m-kg, 12—17 ft-lb)



97U0J1-090

Main drive gear bearing

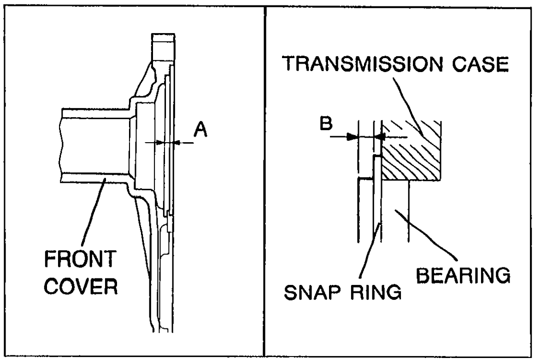
Drive on the main drive gear bearing with the **SST**, and secure it with a new snap ring.



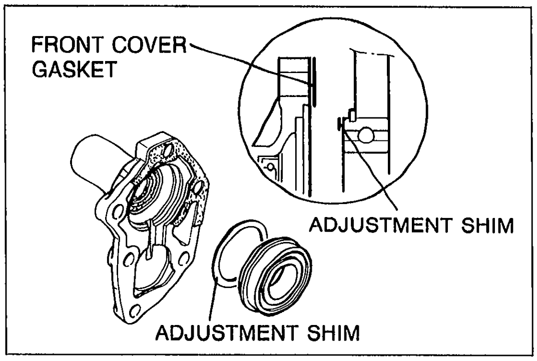
97U0J1-091

Countershaft front bearing

Drive on the countershaft front bearing with the **SST**, and secure it with a new snap ring.


A
FRONT COVER
TRANSMISSION CASE
B
SNAP RING
BEARING

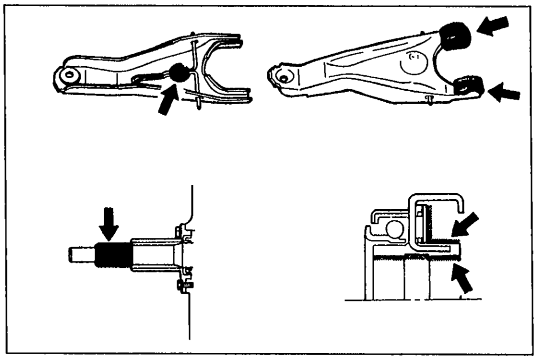
05U0JX-060


FRONT COVER GASKET
ADJUSTMENT SHIM
ADJUSTMENT SHIM

Adjustment shim

After measuring dimensions (A) and (B) shown in the figure, use an adjustment shim(s), as specified below, of the thickness corresponding to the value of (A) minus (B), so that bearing end play will be within specification.

Bearing end play: 0—0.1mm (0—0.004 in)
Adjustment shim thickness:
0.10mm (0.004 in), 0.15mm (0.006 in), 0.30mm (0.012 in)



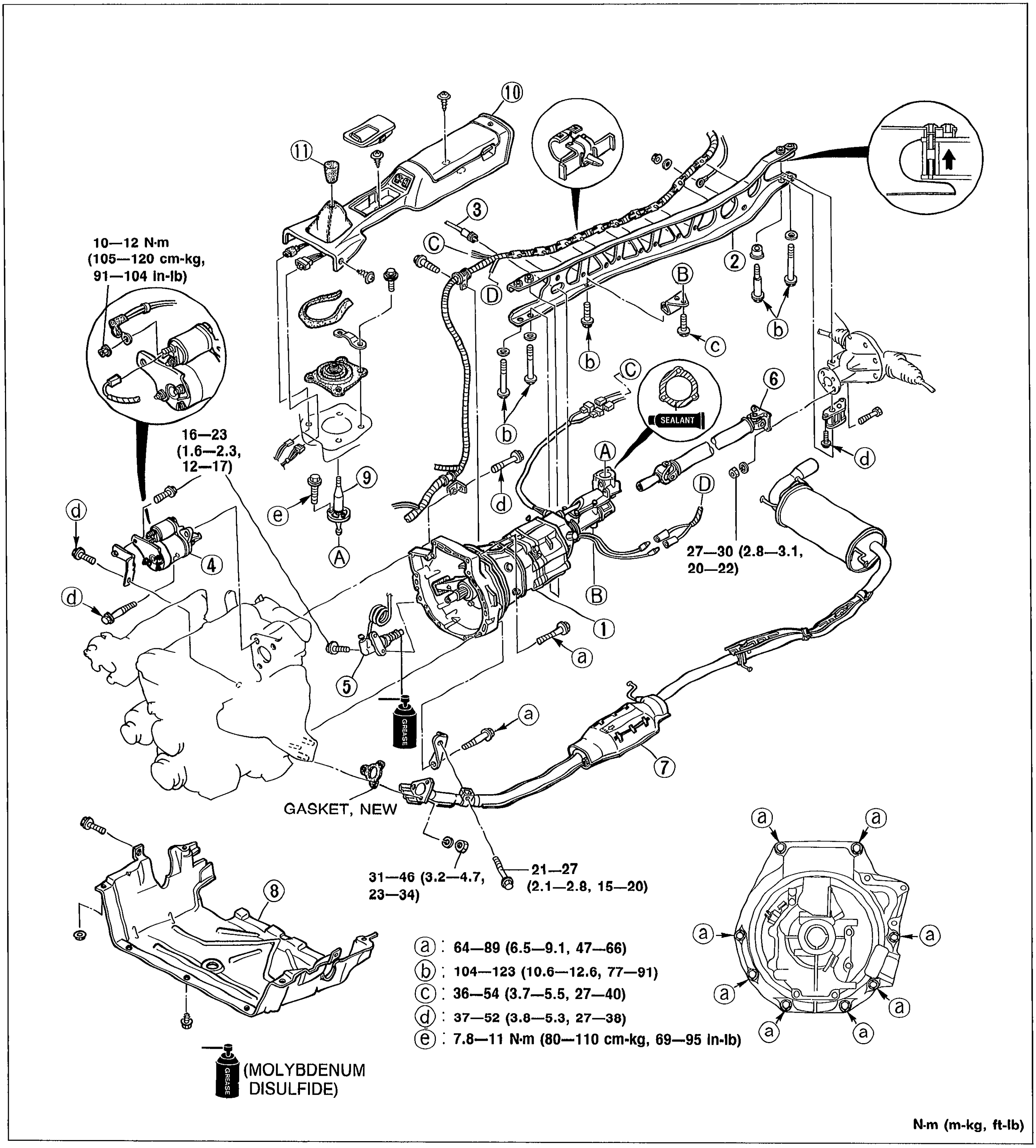
9MU0JX-110

Release fork

1. Apply Mori white TA No.2 or equivalent organic molybdenum grease to the shaded areas of the release bearing and release fork.
2. Install the release bearing and release fork.

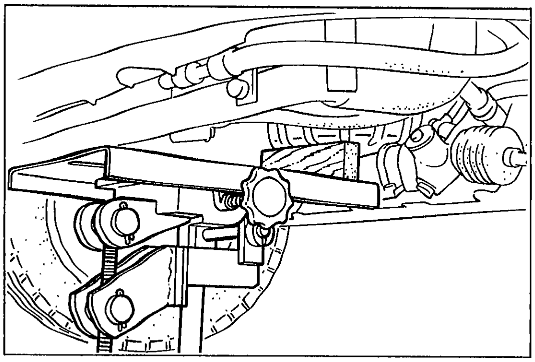
INSTALLATION

1. Raise the vehicle and support it with safety stands.
2. Install in the order shown in the figure, referring to **Installation Note**.
3. Add the specified amount of the specified transmission oil. (Refer to page J–8.)
4. Warm up the engine and transmission, and inspect for oil leakage and transmission operation.


⑩
⑪
③
Ⓒ
②
Ⓓ
Ⓑ
ⓑ
ⓒ
10—12 N·m
(105—120 cm-kg,
91—104 in-lb)
Ⓒ
⑥
SEALANT
16—23
(1.6—2.3,
12—17)
Ⓐ
⑨
ⓓ
ⓔ
Ⓐ
Ⓓ
④
27—30 (2.8—3.1,
20—22)
Ⓑ
①
ⓐ
⑤
GREASE
⑦
GASKET, NEW
31—46 (3.2—4.7,
23—34)
21—27
(2.1—2.8, 15—20)
⑧
ⓐ : 64—89 (6.5—9.1, 47—66)
ⓑ : 104—123 (10.6—12.6, 77—91)
ⓒ : 36—54 (3.7—5.5, 27—40)
ⓓ : 37—52 (3.8—5.3, 27—38)
ⓔ : 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
GREASE (MOLYBDENUM DISULFIDE)
N·m (m-kg, ft-lb)

05U0JX-061

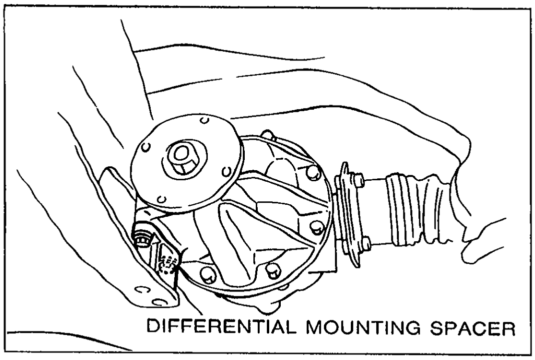
1. Transmission
   Installation Note page J–46
2. Power plant frame (PPF)
   Installation Note page J–46
3. Speedometer cable
4. Starter
5. Clutch release cylinder
6. Propeller shaft
   Installation Note page J–47
7. Exhaust pipe
8. Undercover
9. Shift lever
   Installation Note page J–47
10. Rear console
11. Shift lever knob



05U0JX-062

Installation note
Transmission

Tilt the engine by pushing up on the front of oil pan with a wooden block and a jack for easy installation of the transmission.



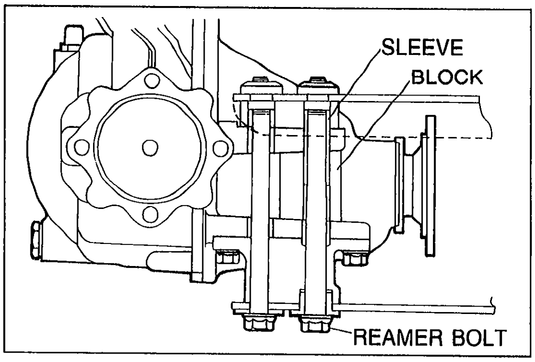
05U0MX-078

Power plant frame (PPF)

1. Install the differential mounting spacer.

   Tightening torque:
   37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

2. Support the transmission with a jack so that it is level.
3. Position the PPF and snugly tighten the transmission-side bolts by hand.

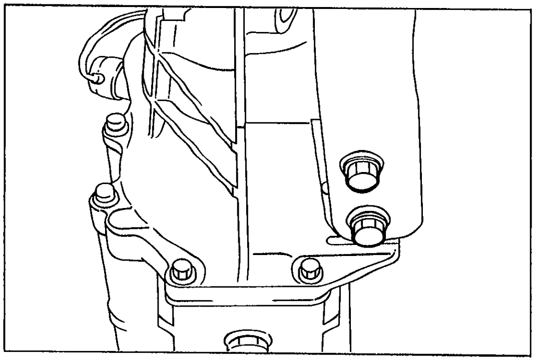


05U0MX-079

4. Verify that the sleeve is installed into the block.

   Note
   - **The reamer bolt is installed in the forward hole.**

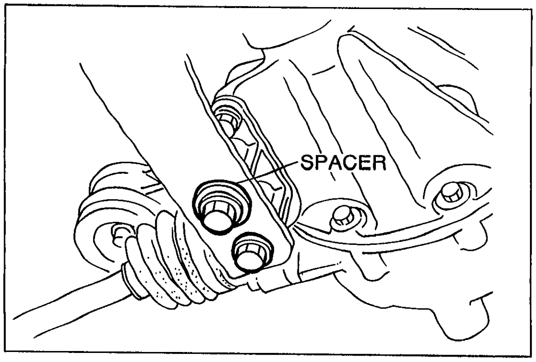
5. Install the spacer and bolts, then snugly tighten them.



05U0MX-080

6. Snugly install the power plant frame bracket.
7. Tighten the transmission-side bolts.

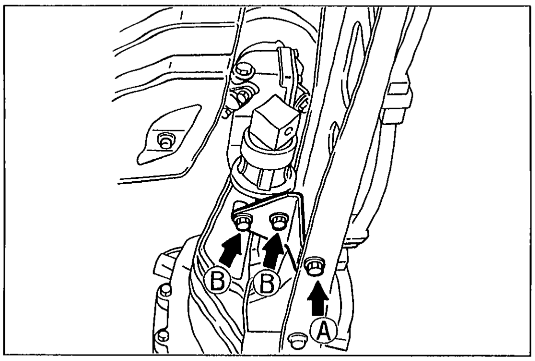
   Tightening torque:
   104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)



05U0MX-081

8. Tighten the differential-side bolts.

   Tightening torque:
   104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)

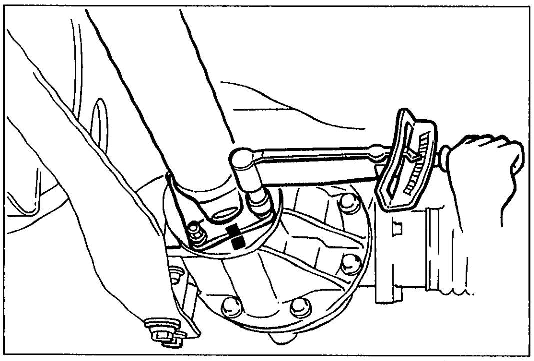


05U0MX-082

9. Install the power plant frame bracket.

Tightening torque:
Ⓐ 104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)
Ⓑ 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)

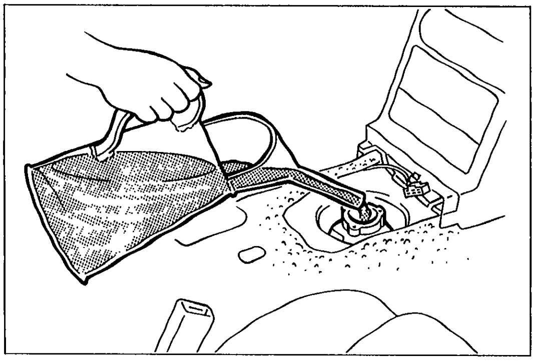
10. Remove the jack, and connect the wire harness.

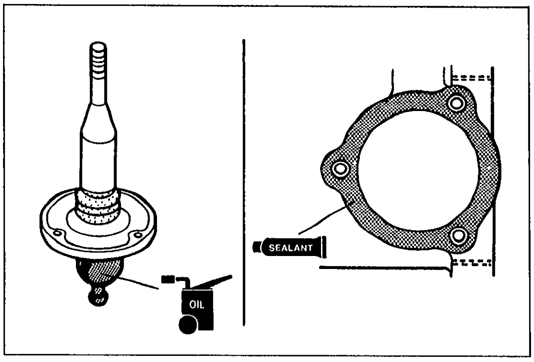

05U0MX-083

Propeller shaft

Align the marks, and install the propeller shaft.

Tightening torque:
27—30 N·m (2.8—3.1 m-kg, 20—22 ft-lb)


05U0JX-063



05U0JX-064

Shift lever

Note
- **Add the specified oil whenever the extension housing has been removed or the transmission has been overhauled.**

1. Pour the specified amount of oil into the change control case.

Specified oil:
Grade: API service GL-4 or GL-5
All season: SAE 75W-90
Above 10°C (50°F): SAE 80W-90
Specified amount: 80—95 cc (4.9—5.8 cu in)

2. Apply oil to the shift lever as shown.
3. Apply sealant to the contact surfaces of the boot panel and change control case.

PROPELLER SHAFT

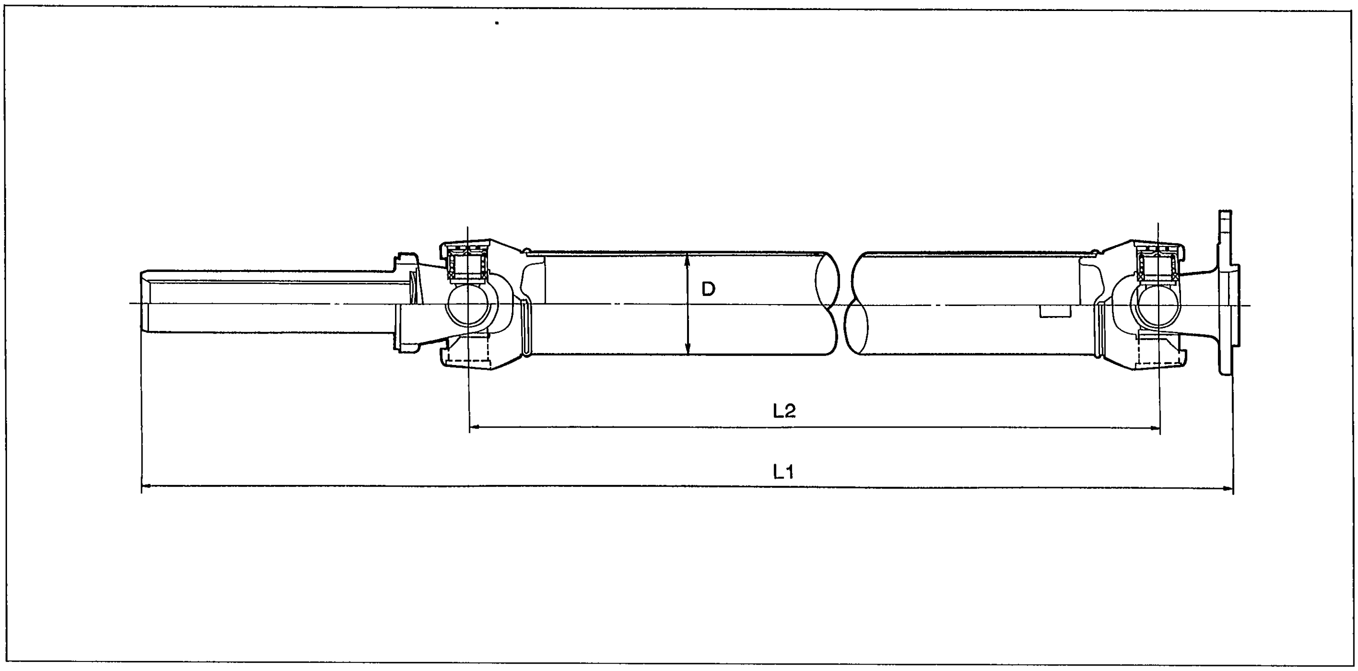
OUTLINE .... L– 2
  SPECIFICATIONS .... L– 2
TROUBLESHOOTING GUIDE .... L– 2
PROPELLER SHAFT .... L– 2
  PREPARATION .... L– 2
  REMOVAL / INSPECTION / INSTALLATION .. L– 3

05U0LX-001

OUTLINE

SPECIFICATIONS

Item \ Engine/Transmission Model			B6 DOHC
			M5M-D
Length	mm (in)	L1	1,049 (41.30)
		L2	864 (34.02)
Outer diameter	mm (in)	D	57 (2.24)



05U0LX-002

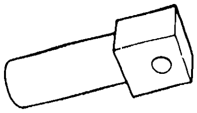
TROUBLESHOOTING GUIDE

Problem	Possible Cause	Action	Page
Vibration	Worn universal joint Bent propeller shaft Worn slip yoke splines Runout of propeller shaft Unbalanced propeller shaft	Replace Replace Replace Replace Replace	L–3 L–3 L–3 L–3 L–3
Abnormal noise	Worn or damaged universal joint Worn slip yoke splines	Replace Replace	L–3 L–3

05U0LX-003

PROPELLER SHAFT

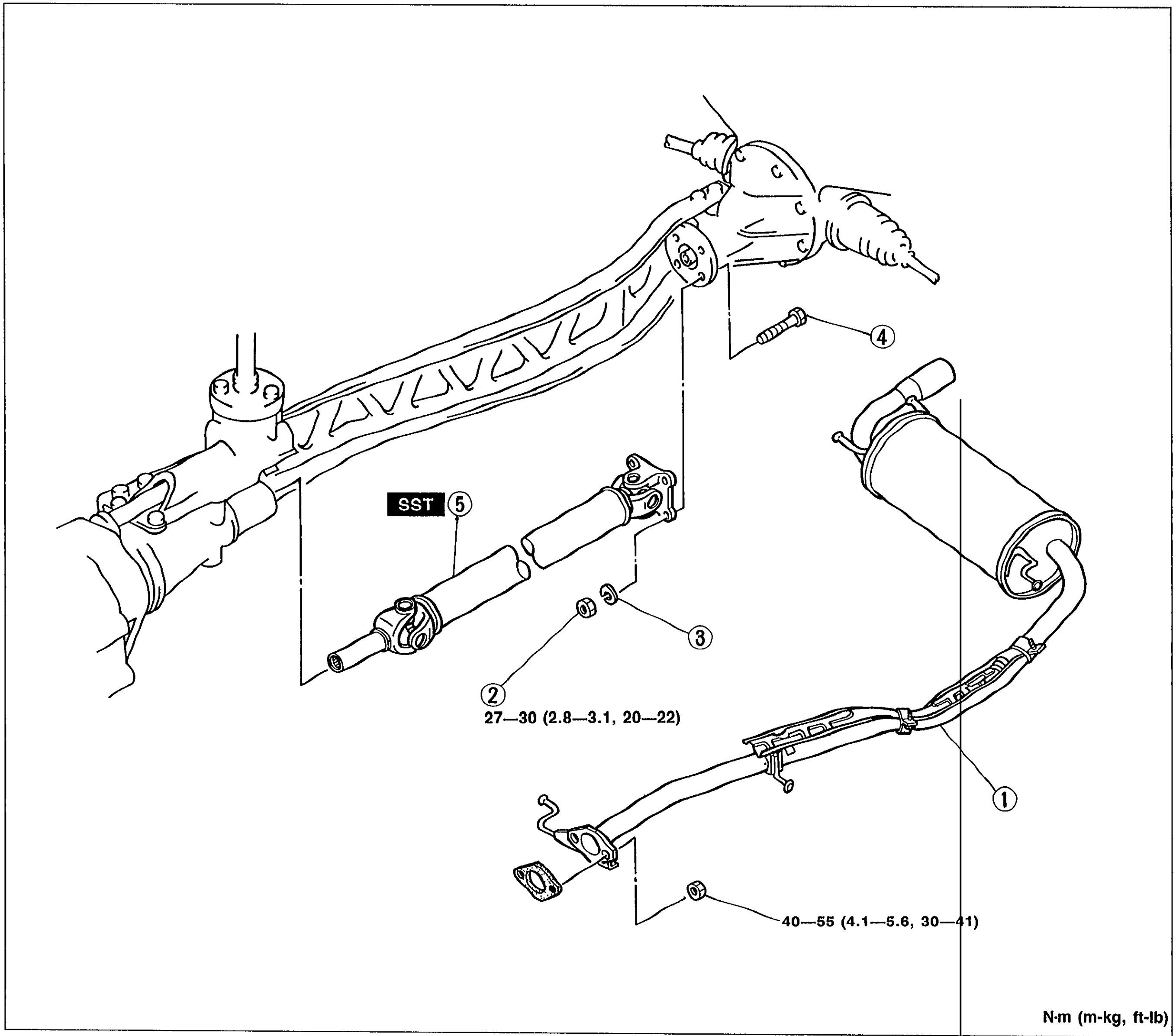
PREPARATION
SST

49 0259 440 Holder, main shaft 	For prevention of oil leakage

05U0LX-004

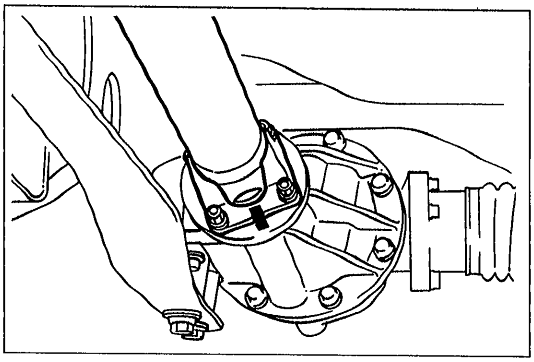
REMOVAL / INSPECTION / INSTALLATION

1. Remove in the order shown in the figure, referring to **Removal Note**.
2. Inspect all parts and repair or replace as necessary.
3. Install in the reverse order of removal, referring to **Installation Note**.



05U0LX-005

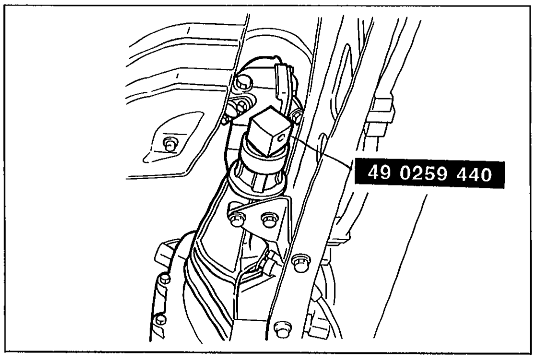
1. Exhaust pipe
2. Nut
3. Lock washer
4. Bolt
5. Propeller shaft
   Removal Note .. page L– 3
   Inspection......... page L– 4
   Installation Note page L– 4



05U0LX-006

Removal Note
Propeller shaft

1. Before removing the propeller shaft, mark the flanges for correct installation.

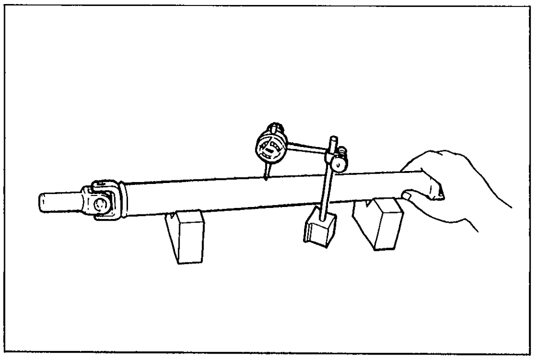


05U0LX-007

2. When the propeller shaft is removed from the extension housing, immediately install the **SST** to prevent oil leakage.

INSPECTION

Propeller shaft



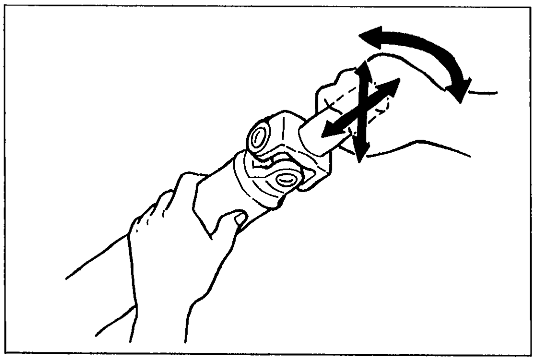
05U0LX-008

Note

- **Clean the propeller shaft (except universal joints) thoroughly with a steam cleaner or cleaning solvent before inspection.**

1. Measure the propeller shaft runout with a dial indicator. Replace the propeller shaft if runout is excessive.

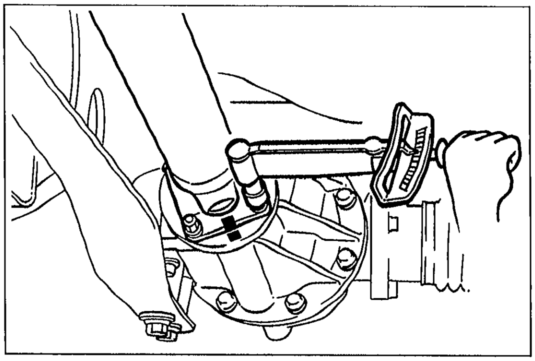
Maximum runout: 0.4mm (0.016 in)



97U0LX-008

2. Move the universal joints in the directions shown, and check for universal joint looseness. If there is looseness, replace the propeller shaft.
3. Check operation of the universal joint. If the universal joint has excessive resistance, replace the propeller shaft.

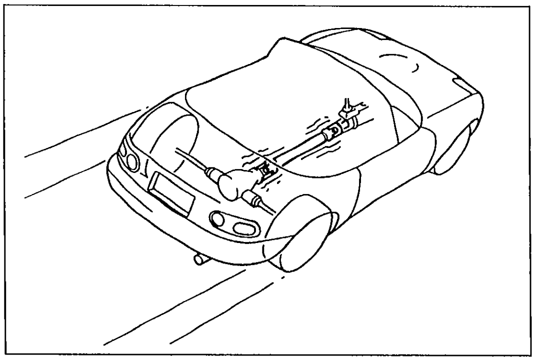
Installation Note



05U0LX-009

1. Align the marks, and install the propeller shaft.

Tightening torque:
27—30 N·m (2.8—3.1 m-kg, 20—22 ft-lb)



05U0LX-010

2. Check that there is no abnormal noise or vibration when driving the vehicle. If noise or vibration occurs from the propeller shaft, replace the propeller shaft.

FRONT AND REAR AXLES

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  SPECIFICATIONS.................................... **M– 3**
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  REAR AXLE .... **M– 3**
  DIFFERENTIAL, STANDARD .... **M– 4**
  DIFFERENTIAL, VISCOUS LIMITED SLIP .... **M– 4**
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   (VISCOUS L.S.D.) **M–27**

05U0MX-001

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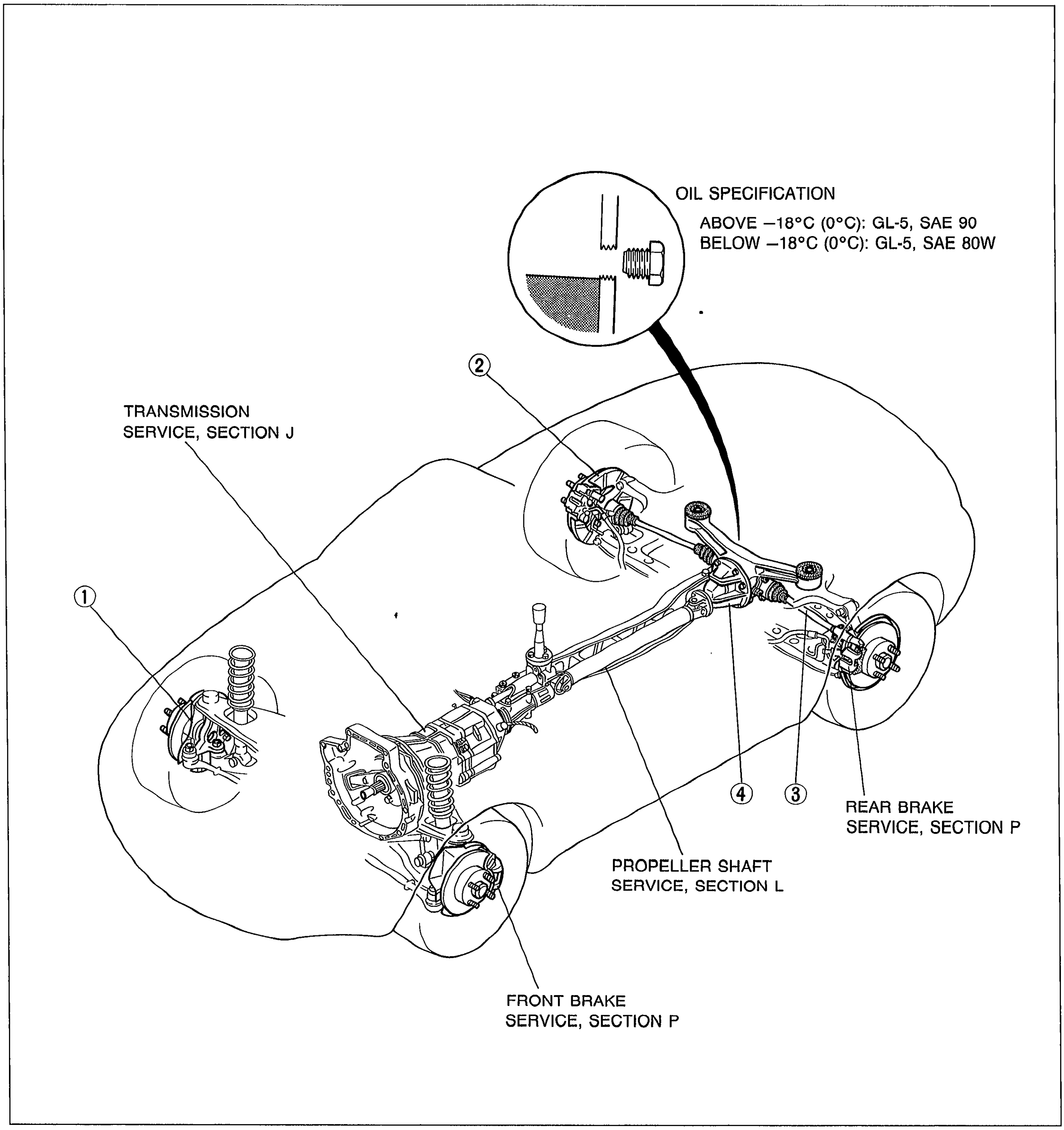
OIL SPECIFICATION
ABOVE –18°C (0°C): GL-5, SAE 90
BELOW –18°C (0°C): GL-5, SAE 80W
②
TRANSMISSION SERVICE, SECTION J
①
④
③
REAR BRAKE SERVICE, SECTION P
PROPELLER SHAFT SERVICE, SECTION L
FRONT BRAKE SERVICE, SECTION P

05U0MX-002

1. Front axle
    - Inspection / Removal / Installation .... page M– 5
    - Disassembly / Inspection / Assembly .... page M– 8
2. Rear axle
    - Inspection / Removal / Installation .... page M–10
    - Disassembly / Inspection / Assembly .... page M–12
3. Driveshaft
    - Inspection / Removal / Installation .... page M–16
    - Overhaul .... page M–18
4. Differential
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    - Operation inspection.................. page M–26
    - Removal / Installation .... page M–27
    - Overhaul .... page M–32

OUTLINE

SPECIFICATIONS

Engine/Transmission Model Item			B6 DOHC	
			M5M-D	
Front axle	Type		Double-wishbone	
	Bearing		Angular ball bearing	
	Maximum wheel bearing play mm (in)		0.05 (0.002)	
Rear axle	Type		Double-wishbone	
	Bearing		Angular ball bearing	
	Maximum wheel bearing play mm (in)		0.05 (0.002)	
Differential	Type		Standard	Viscous L.S.D.
	Reduction gear		Hypoid gear	
	Reduction ratio		4.300	
	Differential gear		Straight-bevel gear	
	Ring gear size		162.16 (6.384)	
	Oil	Grade	API service GL-5	
		Viscosity	Above −18°C (0°F): SAE 90 Below −18°C (0°F): SAE 80W	
		Capacity liter (US qt, Imp qt)	0.65 (0.69, 0.57)	
Driveshaft	Type		Constant velocity (double offset) joint	
	Length mm (in)		659.3 (25.957)	

Viscous L.S.D.: Viscous Limited Slip Differential

05U0MX-003

TROUBLESHOOTING GUIDE

FRONT AXLE

Problem	Possible Cause	Action	Page
Steering wheel vibration	Worn or damaged wheel bearing	Replace	M– 5
Pulls or one-sided braking	Worn or damaged wheel bearing	Replace	M– 5

05U0MX-004

REAR AXLE

Problem	Possible Cause	Action	Page
Abnormal noise	Bent driveshaft Worn or damaged wheel bearing Worn driveshaft spline	Replace Replace Replace	M–16 M–12 M–16

REAR AXLE (Cont'd)

Problem	Possible Cause	Action	Page
Body "rolls"	Worn or deteriorated upper arm bushing	Replace	M–12, Section R
Body leans	Weak upper arm bushing	Replace	M–12, Section R
Abnormal noise from suspension system	Worn or deteriorated upper arm bushing	Replace	M–12, Section R

05U0MX-005

DIFFERENTIAL, STANDARD

Problem	Possible Cause	Action	Page
Abnormal noise	Insufficient differential oil Incorrect differential oil Improperly adjusted ring gear backlash Poor contact of ring gear teeth Worn or damaged side bearing Worn or damaged ring gear Worn or damaged drive pinion bearing Worn or damaged pinion and side gear Seized side gear and case Worn side gear spline Worn pinion shaft Worn thrust washer Improperly adjusted side gear backlash Improperly adjusted drive pinion gear preload	Add oil Replace Adjust Adjust Replace Replace Replace Replace Replace Replace Replace Replace Adjust Adjust	M–24 M–24 M–40 M–41 M–32 M–32 M–32 M–32 M–32 M–32 M–32 M–32 M–40 M–38
Heat buildup	Insufficient differential oil Insufficient gear backlash Excessive bearing preload	Add oil Adjust Adjust	M–24 M–40 M–38,40
Oil leakage	Excessive differential oil Loose differential carrier Worn or damaged oil seal	Remove oil Tighten or repair Replace	M–24 M–42 M–32
No differential operation	Misassembled	Repair	M–32

05U0MX-006

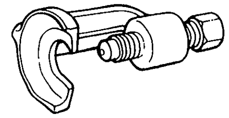
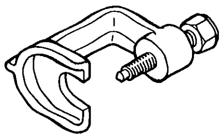
DIFFERENTIAL, VISCOUS LIMITED SLIP

Problem	Possible Cause	Action	Page
Abnormal noise	Insufficient differential oil Incorrect differential oil Improperly adjusted ring gear backlash Poor contact of ring gear teeth Worn or damaged viscous limited slip differential oil seal Worn or damaged ring gear Worn or damaged drive pinion bearing	Add oil Replace Adjust Adjust Replace Replace Replace	M–24 M–24 M–40 M–41 M–24,32 M–32 M–32
Heat buildup	Insufficient differential oil Excessive bearing preload	Add oil Adjust	M–24 M–38,40
Oil leakage	Excessive differential oil Loose differential carrier Worn or damaged oil seal	Remove oil Tighten or repair Replace	M–24 M–42 M–24,32
No differential operation	Misassembled	Repair	M–32

05U0MX-007

FRONT AXLE

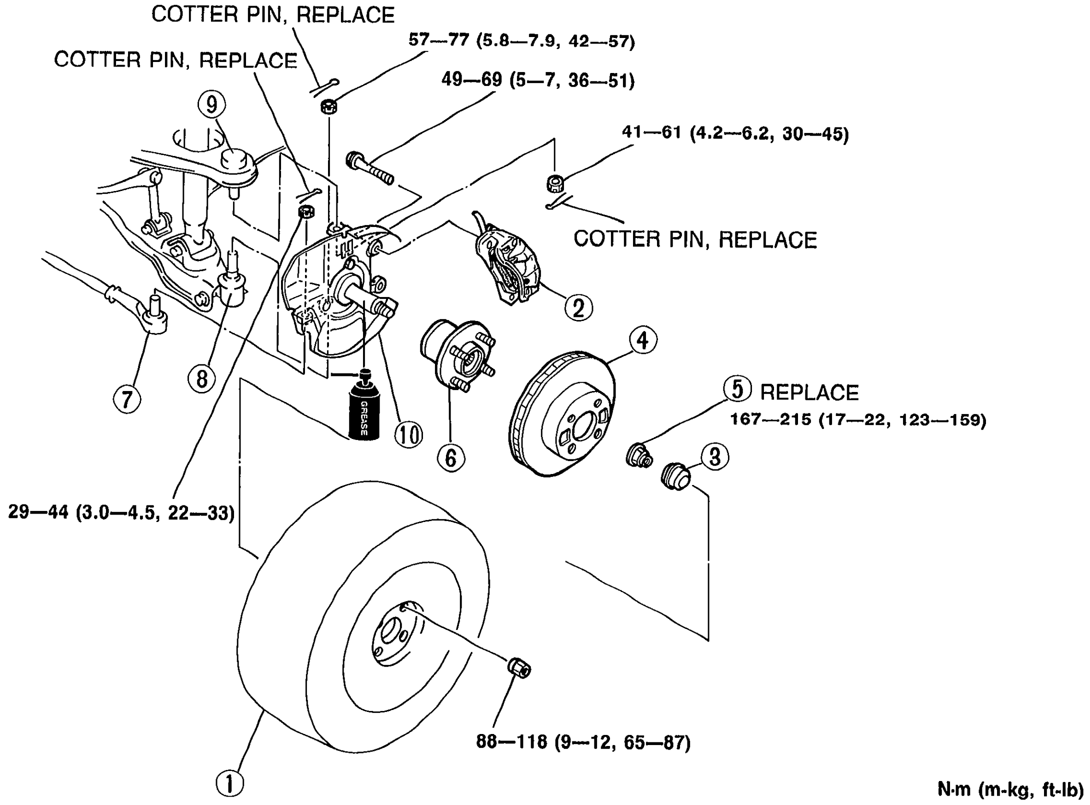
PREPARATION
SST

49 0118 850C Puller, ball joint 	For disconnection of tie-rod end and upper arm ball joint	49 0727 575 Puller, ball joint 	For disconnection of lower arm ball joint

05U0MX-008

WHEEL HUB, STEERING KNUCKLE
Inspection / Removal / Installation

1. Inspect wheel bearing play, referring to **Inspection**.
2. Remove in the order shown in the figure, referring to **Removal Note**.
3. Inspect all parts and repair or replace as necessary.
4. Install in the reverse order of removal, referring to **Installation Note**.

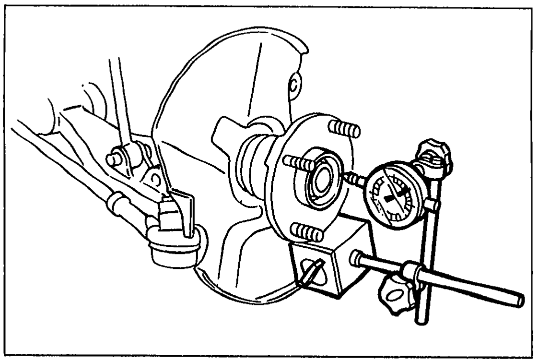

COTTER PIN, REPLACE
COTTER PIN, REPLACE
57—77 (5.8—7.9, 42—57)
49—69 (5—7, 36—51)
⑨
41—61 (4.2—6.2, 30—45)
COTTER PIN, REPLACE
②
④
⑦
⑧
GREASE
⑩
⑥
⑤ REPLACE
167—215 (17—22, 123—159)
③
29—44 (3.0—4.5, 22—33)
88—118 (9—12, 65—87)
①
N·m (m-kg, ft-lb)

05U0MX-009

1. Front wheel
2. Brake caliper assembly
    Removal Note .... page M–6
3. Hub cap
4. Disc plate
5. Locknut
    Installation Note .... page M–7
6. Front wheel hub assembly
    Inspect for cracks and damage
    Disassembly / Inspection /
    Assembly .... page M–8
7. Tie-rod end
    Removal Note .... page M–6
    Service .... Section N
8. Lower arm
    Removal Note .... page M–6
    Service .... Section R
9. Upper arm
    Removal Note .... page M–6
    Service .... Section R
10. Dust cover and knuckle spindle
    Inspect dust cover for damage and distortion
    Inspect knuckle spindle for cracks and damage

Inspection

Wheel bearing play



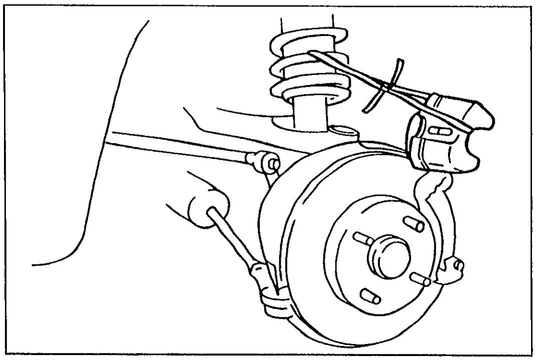
05U0MX-010

1. Remove the wheel, brake caliper assembly, and disc plate, referring to **Removal note** below.
2. Position a dial indicator against the wheel hub. Push and pull the wheel hub by hand in the axial direction and measure the wheel bearing play.
   If the bearing play exceeds specification, check and adjust the locknut torque or replace the wheel hub assembly if necessary.

   Maximum wheel bearing play: 0.05mm (0.002 in)

Removal note

Brake caliper assembly

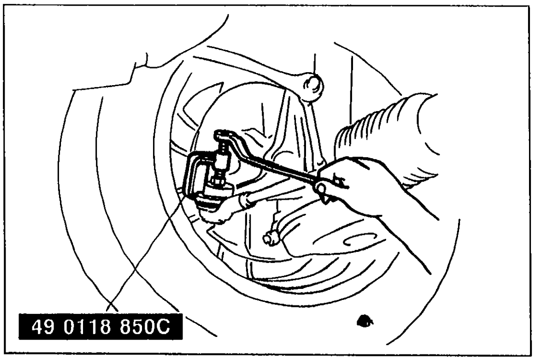


05U0MX-011

Note
- **For easier installation, do not depress the brake pedal after removing the brake caliper assembly.**

Suspend the brake caliper assembly with a rope.

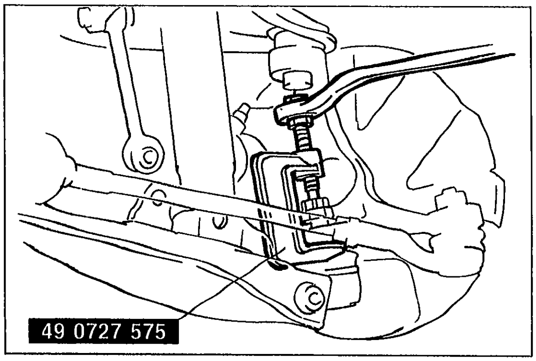
Tie-rod end



05U0MX-012

Loosen the nut and disconnect the tie-rod end with the **SST**.

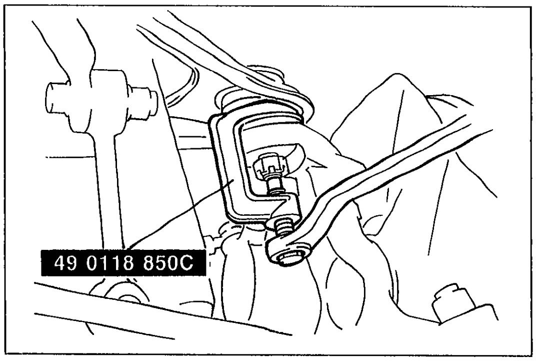
Lower arm



9MU0MX-010

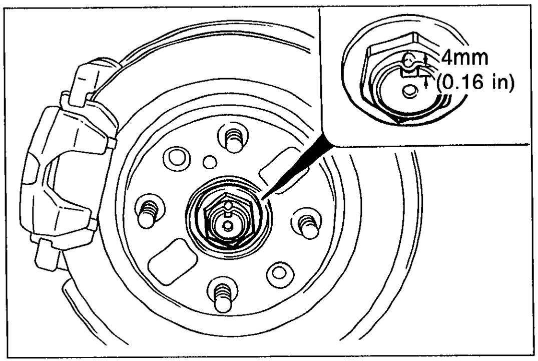
Loosen the nut and disconnect the lower arm with the **SST**.

Upper arm



05U0MX-013

Loosen the nut and disconnect the upper arm with the **SST**.



05U0MX-014

Installation note

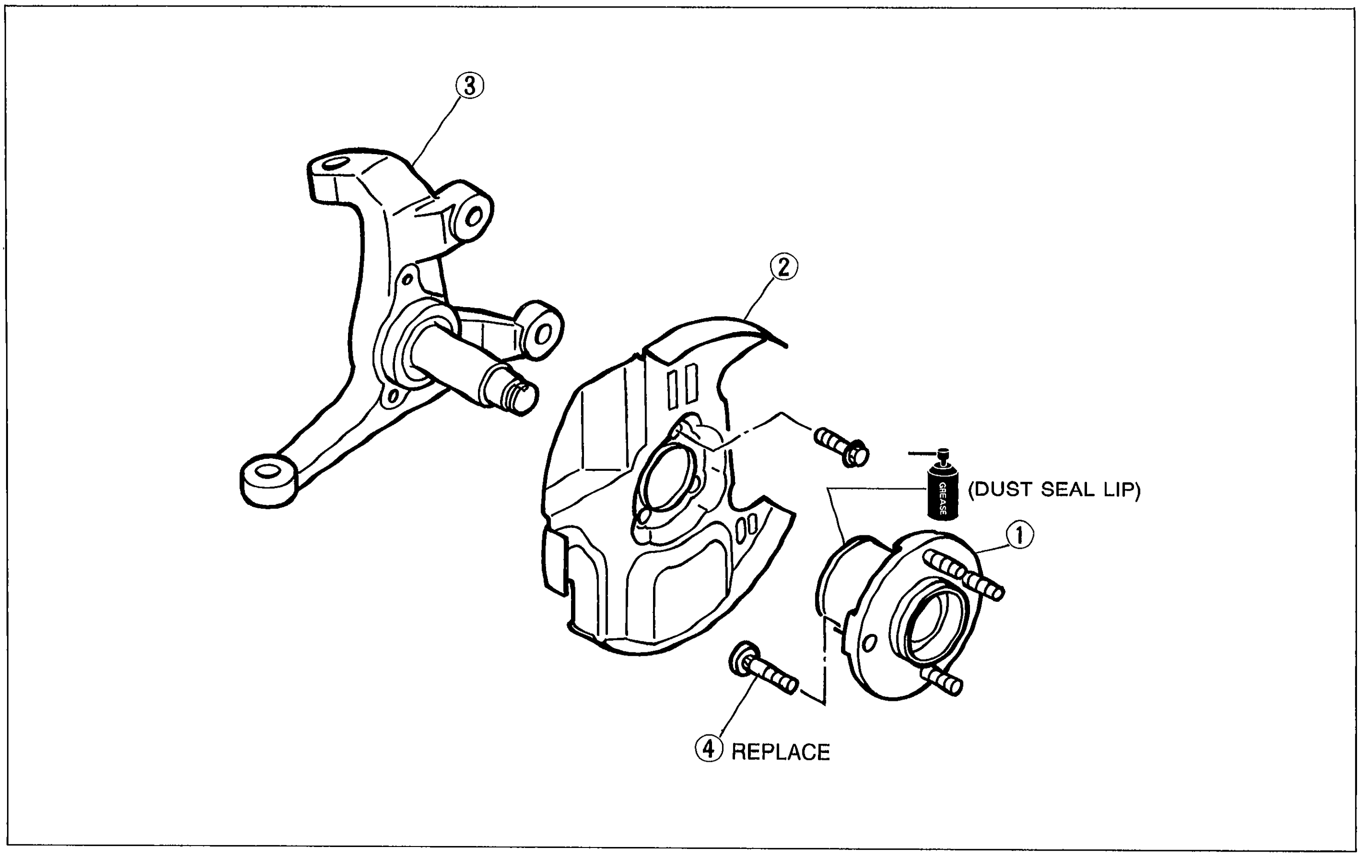
Locknut

Install a new locknut and stake it.

Tightening torque:
167—216 N·m (17—22 m-kg, 123—159 ft-lb)

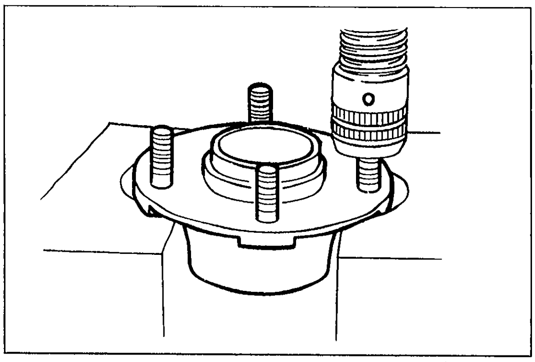
Disassembly / Inspection / Assembly

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Inspect all parts and repair or replace as necessary.
3. Assemble in the reverse order of disassembly, referring to **Assembly Note**.



05U0MX-015

1. Front wheel hub assembly
2. Dust cover
3. Knuckle spindle
4. Hub bolt
   Disassembly Note........................ page M–8
   Assembly Note .... page M–8

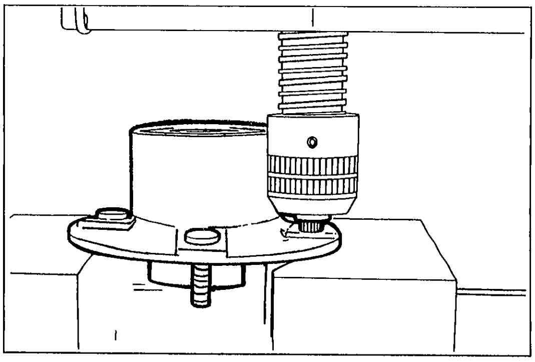


05U0MX-016

Disassembly note
Hub bolts

Caution
- **Do not remove the hub bolts if not necessary.**
- **Do not reuse the removed hub bolts.**

Remove the hub bolts with a press.



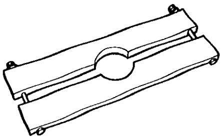
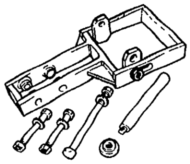
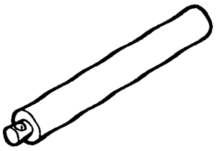
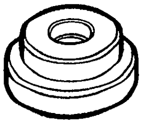
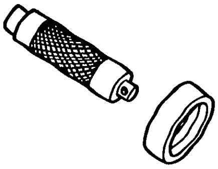
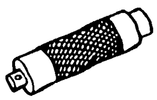
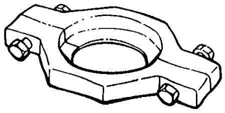
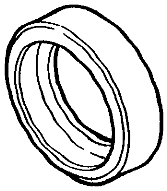
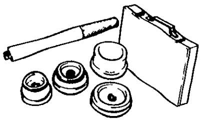
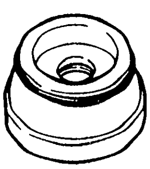
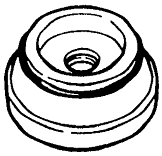
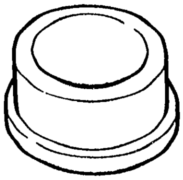
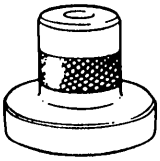
05U0MX-017

Assembly note
Hub bolts

Install the new hub bolts with a press.

REAR AXLE

PREPARATION
SST

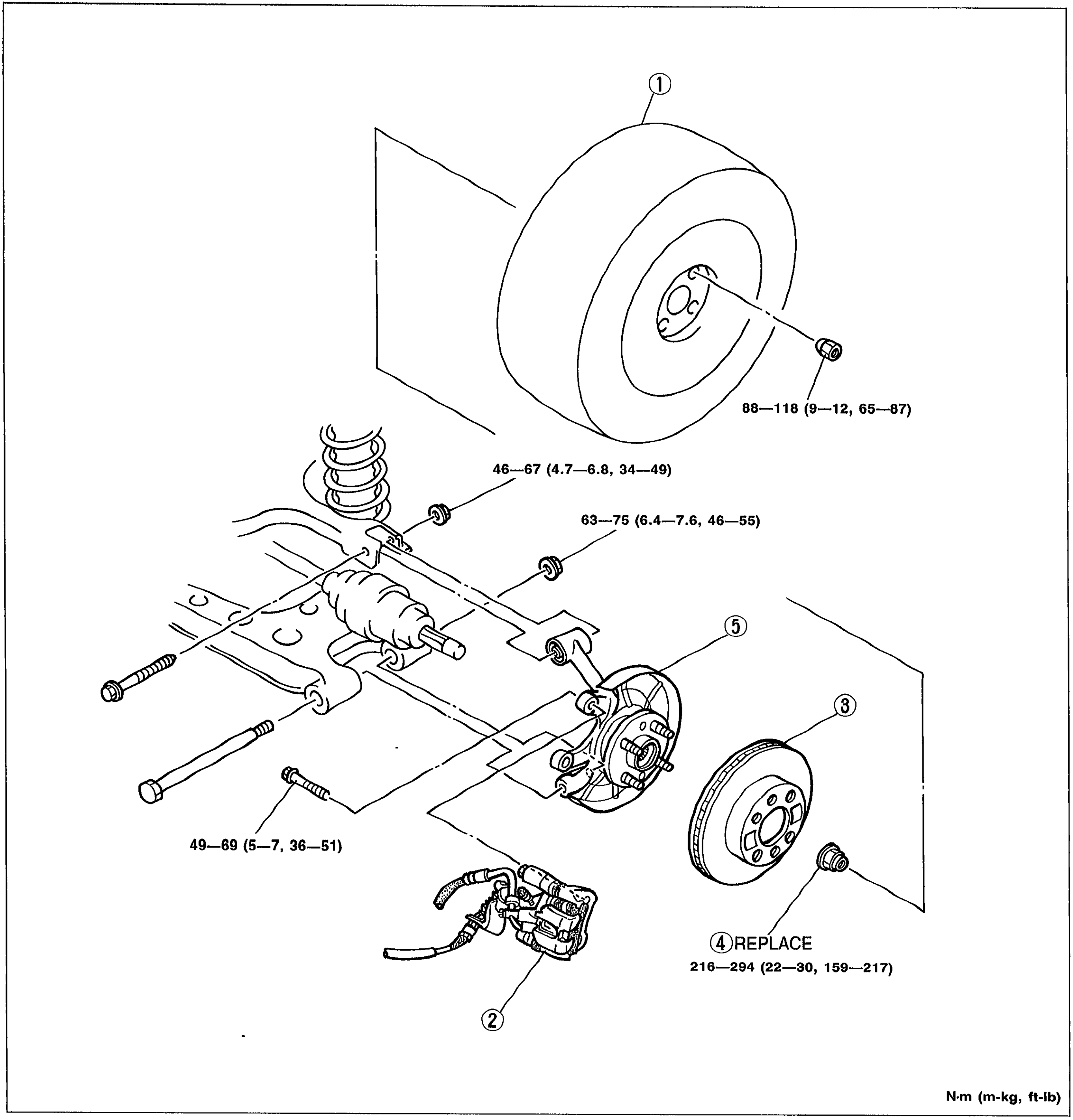
49 F026 103 Puller, wheel hub 	For disassembly and assembly of rear axle	49 B026 1A0 Puller, wheel hub 	For disassembly and assembly of wheel hub
49 G033 102 Handle (Part of 49 B026 1A0) 	For removal and installation of rear wheel hub	49 G030 727 Attachment A (Part of 49 B026 1A0) 	For removal and installation of rear wheel hub
49 G030 795 Installer, oil seal 	For installation of oil seal	49 G030 797 Handle (Part of 49 G030 795) 	For removal and installation of wheel bearing
49 0636 145 Puller, fan pulley boss 	For removal of wheel bearing	49 G033 107 Installer, dust cover 	For installation of dust cover
49 F027 0A1 Installer set, bearing 	For installation of bearing	49 F027 005 Attachment 62 (Part of 49 F027 0A1) 	For assembly of rear axle
49 F027 007 Attachment 72 (Part of 49 F027 0A1) 	For assembly of rear axle	49 F027 009 Attachment 68 & 77 (Part of 49 F027 0A1) 	For assembly of rear axle
49 V001 795 Installer, oil seal 	For installation of oil seal		

05U0MX-018

DISC BRAKE TYPE

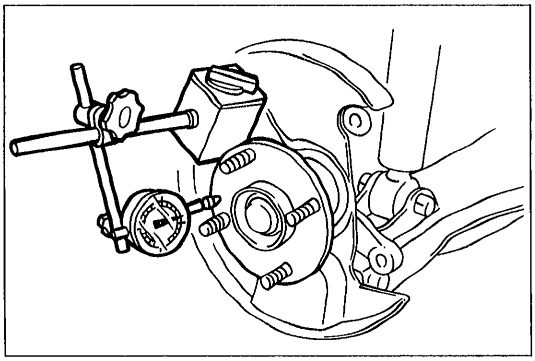
Inspection / Removal / Installation

1. Inspect wheel bearing play, referring to **Inspection**.
2. Remove in the order shown in the figure, referring to **Removal Note**.
3. Inspect all parts and repair or replace as necessary.
4. Install in the reverse order of removal, referring to **Installation Note**.
5. After installation, adjust the rear wheel alignment. (Refer to Section R.)


①
88—118 (9—12, 65—87)
46—67 (4.7—6.8, 34—49)
63—75 (6.4—7.6, 46—55)
⑤
③
49—69 (5—7, 36—51)
④REPLACE
216—294 (22—30, 159—217)
②
N·m (m-kg, ft-lb)

05U0MX-019

1. Rear wheel
2. Brake caliper assembly
   Removal Note .... page M–11
3. Disc plate
4. Locknut
   Installation Note .... page M–11
5. Knuckle, wheel hub, and dust cover
   Inspect knuckle for cracks and damage
   Inspect wheel hub for cracks and damage
   Inspect dust cover for damage and distortion
   Disassembly / Inspection /
   Assembly .... page M–12



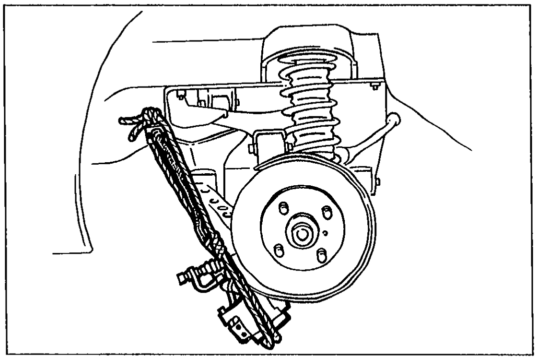
05U0MX-020

Inspection

Wheel bearing play

1. Remove the wheel, brake caliper assembly, and disc plate, referring to **Removal note** below.
2. Position a dial indicator against the wheel hub. Push and pull the wheel hub by hand in the axial direction and measure the wheel bearing play.
   If the bearing play exceeds specification, check and adjust the locknut torque or replace the wheel bearing if necessary.

   Maximum wheel bearing play: 0.05mm (0.002 in)



05U0MX-021

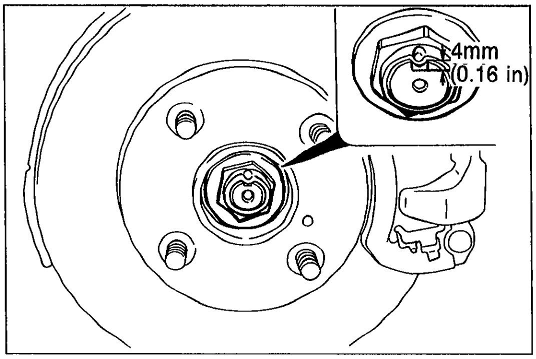
Removal note

Brake caliper assembly

Note

- **For easier installation, do not depress the brake pedal after removing the brake caliper assembly.**

Suspend the brake caliper assembly with a rope.



05U0MX-022

Installation note

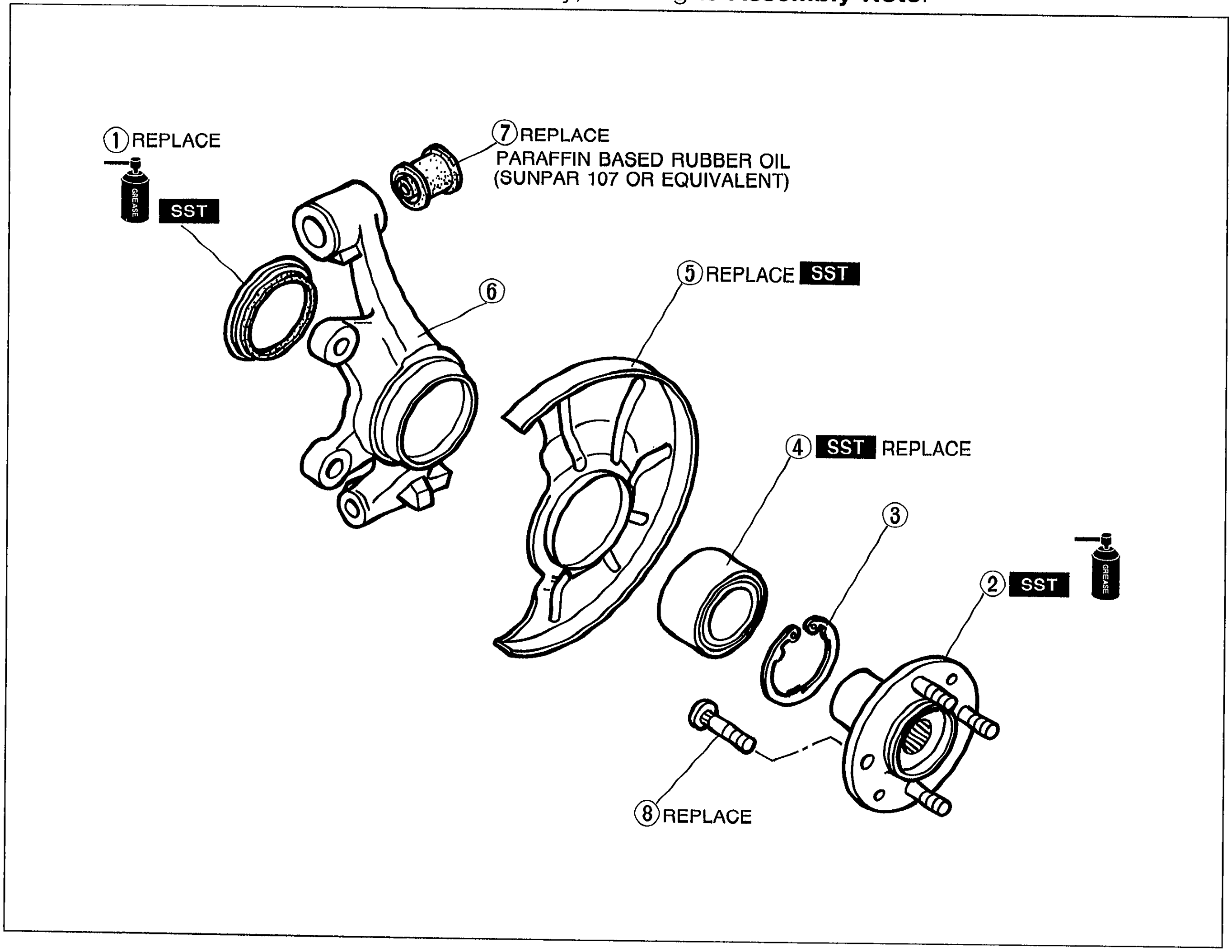
Locknut

Install a new locknut and stake it.

Tightening torque:
216—294 N·m (22—30 m-kg, 159—217 ft-lb)

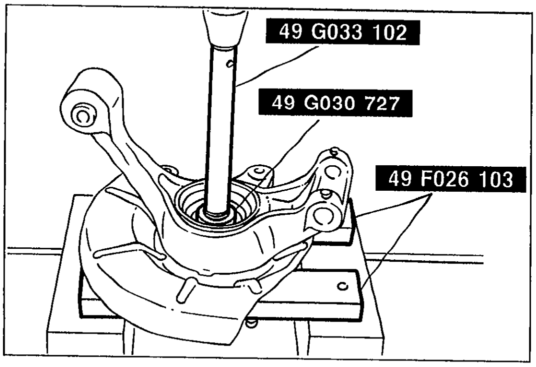
Disassembly / Inspection / Assembly

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Inspect all parts and repair or replace as necessary.
3. Assemble in the reverse order of disassembly, referring to **Assembly Note**.


①REPLACE
GREASE
SST
⑦REPLACE
PARAFFIN BASED RUBBER OIL
(SUNPAR 107 OR EQUIVALENT)
⑥
⑤REPLACE SST
④ SST REPLACE
③
② SST
GREASE
⑧REPLACE

05U0MX-023

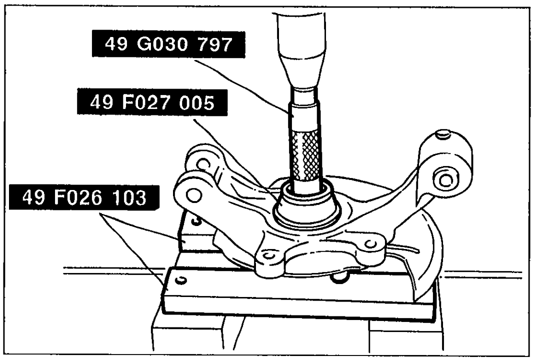
1. Oil seal
    Assembly Note .... page M–15
2. Rear wheel hub assembly
    Disassembly Note...................... page M–12
    Assembly Note .... page M–15
3. Retaining ring
4. Wheel bearing
    Disassembly Note...................... page M–13
    Assembly Note .... page M–14
5. Dust cover
    Disassembly Note...................... page M–13
    Assembly Note .... page M–14
6. Knuckle
7. Bushing
8. Hub bolt
    Disassembly Note...................... page M–14
    Assembly Note .... page M–14


49 G033 102
49 G030 727
49 F026 103

05U0MX-024

Disassembly note
Rear wheel hub assembly

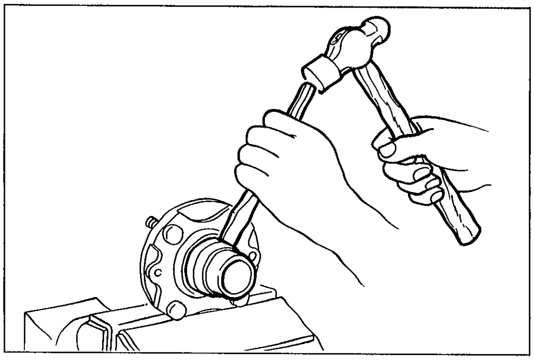
Press out the rear wheel hub assembly with the **SST**.


49 G030 797
49 F027 005
49 F026 103

05U0MX-025

Wheel bearing

Press out the wheel bearing with the **SST**.

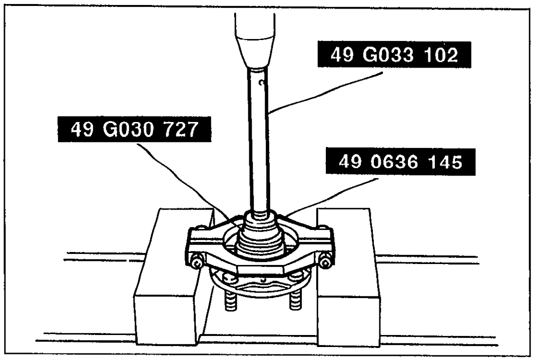


05U0MX-026

Note

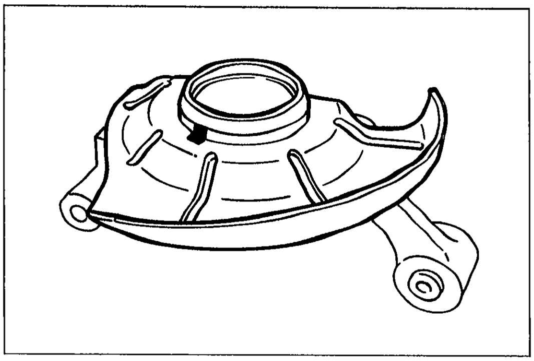
- **If the bearing inner race remains on the rear wheel hub assembly, remove as follows.**

1. Move the bearing inner race away from the rear wheel hub assembly with a chisel.


49 G033 102
49 G030 727
49 0636 145

9MU0MX-617

2. Press the bearing inner race off the wheel hub with the **SST**.



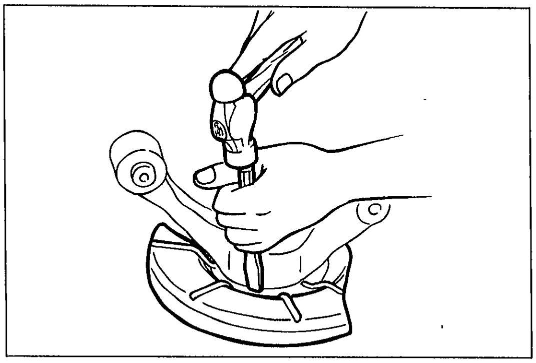
05U0MX-027

Dust cover

Caution

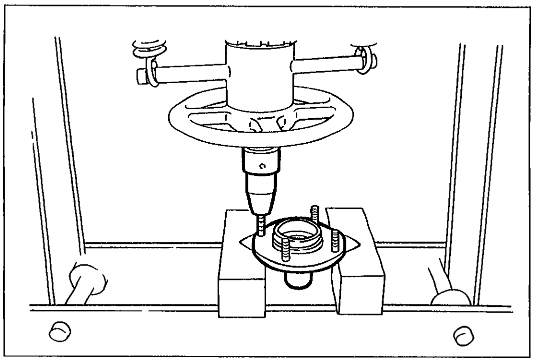
- **Do not remove the dust cover if not necessary.**
- **Do not reuse the removed dust cover.**

1. Mark the dust cover and knuckle for proper reassembly.



9MU0MX-014

2. Remove the dust cover with a chisel.

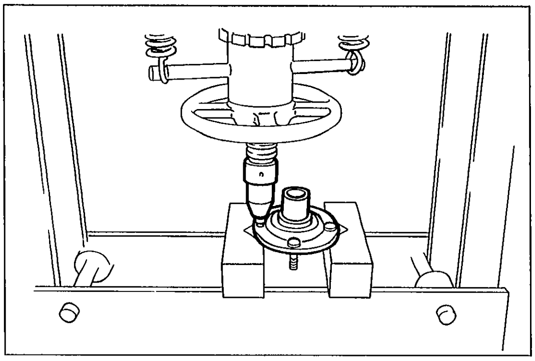


05U0MX-028

Hub bolt

Caution
- **Do not remove the hub bolts if not necessary.**
- **Do not reuse the removed hub bolts.**

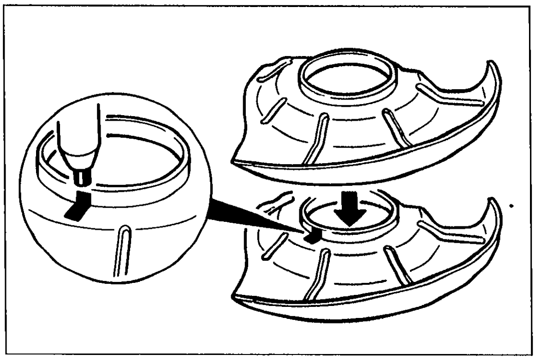
Press out the hub bolts.



9MU0MX-620

Assembly note
Hub bolt

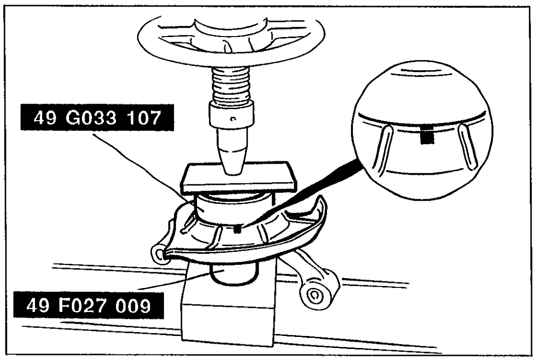
Press in new hub bolts.



05U0MX-029

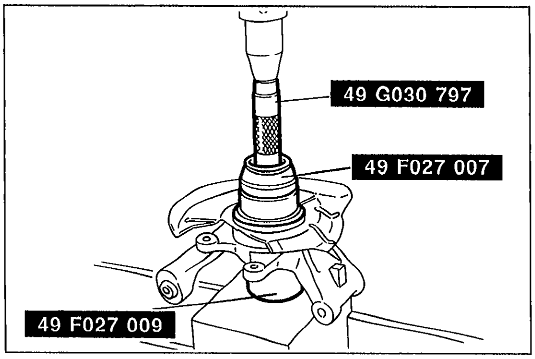
Dust cover

1. Mark the new dust cover as the removed one.


49 G033 107
49 F027 009

9MU0MX-622

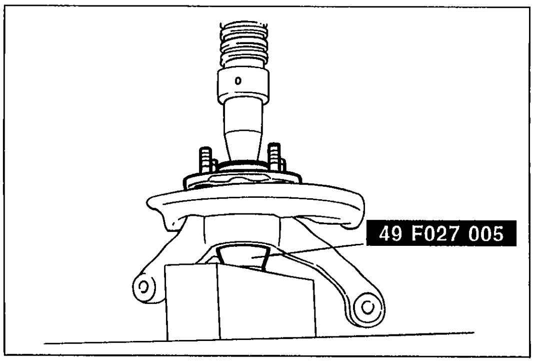
2. Align the marks of the new dust cover and the knuckle.
3. Install the new dust cover with the **SST**.


49 G030 797
49 F027 007
49 F027 009

05U0MX-030

Wheel bearing

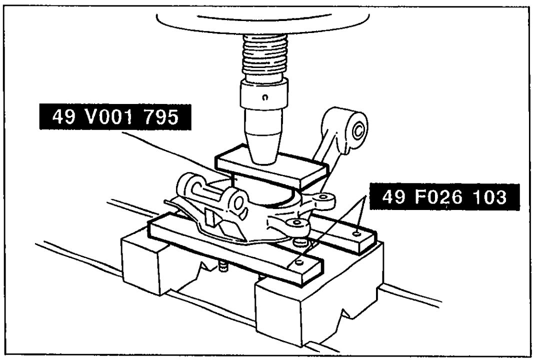
Press the new wheel bearing into the knuckle with the **SST**.



05U0MX-031

Rear wheel hub assembly

1. Apply grease to the wheel bearing inner race.
2. Press the rear wheel hub assembly in with the **SST**.


49 V001 795
49 F026 103

05U0MX-032

Oil seal

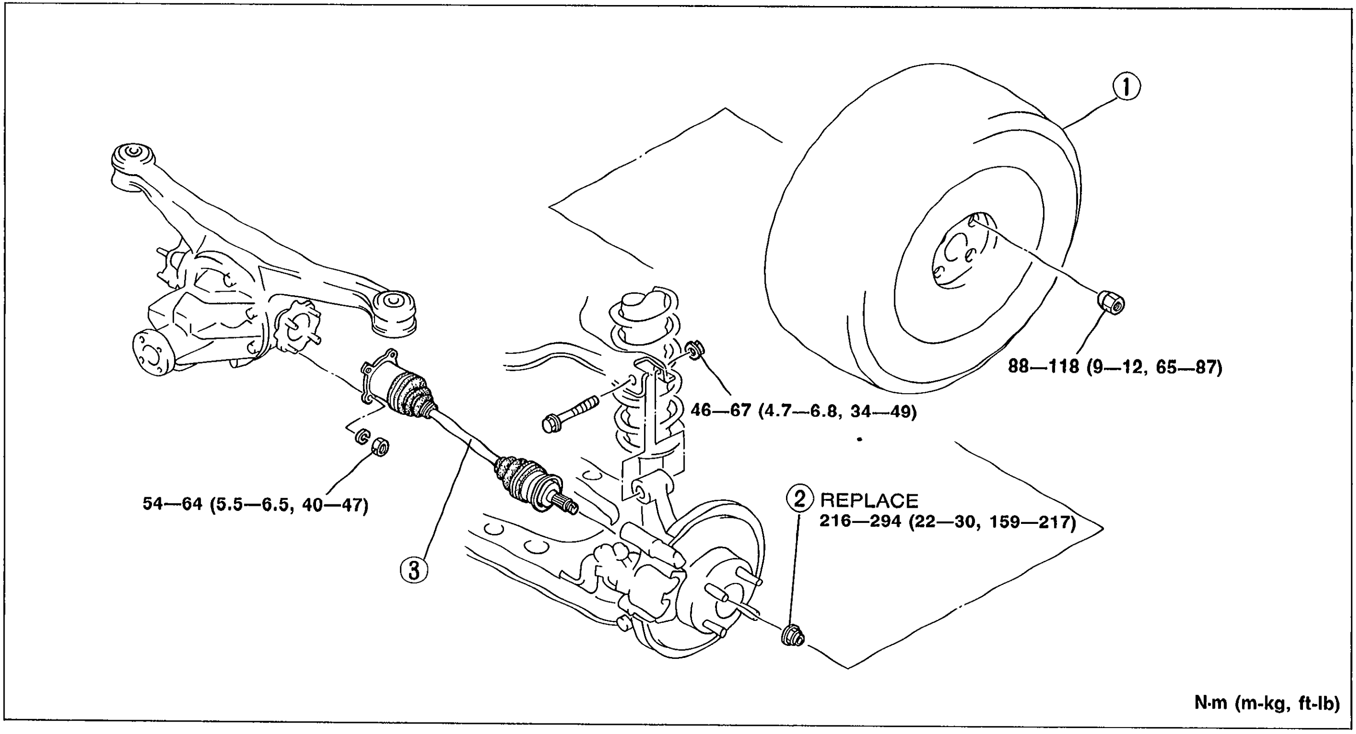
1. Apply grease to the new oil seal lip.
2. Install the new oil seal with the **SST**.

DRIVESHAFT

DOUBLE OFFSET JOINT

Inspection / Removal / Installation

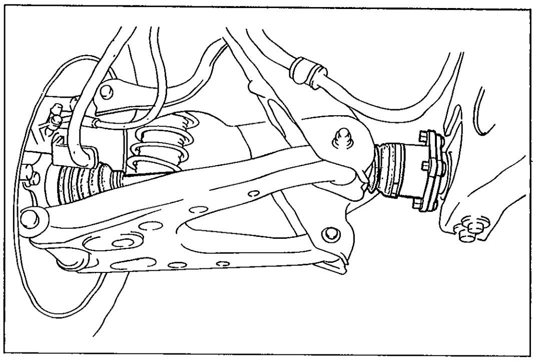
1. Inspect the driveshaft, referring to **Inspection**.
2. Remove in the order shown in the figure, referring to **Removal Note**.
3. Install in the reverse order of removal, referring to **Installation Note**.
4. After installation, adjust the rear wheel alignment. (Refer to Section R.)



05U0MX-033

1. Rear wheel
2. Locknut
    Installation Note .... page M–17

3 Driveshaft
    Removal Note .... page M–16
    Overhaul .... page M–18

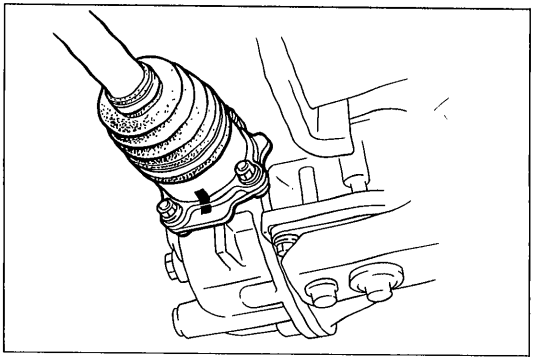


05U0MX-034

Inspection

Driveshaft

1. Check the dust boot on the driveshaft for cracks, damage, leaking grease, and a loose boot band.
2. Check the driveshaft for bending, cracks, and wear of joints or splines.
3. Repair or replace the driveshaft if necessary.

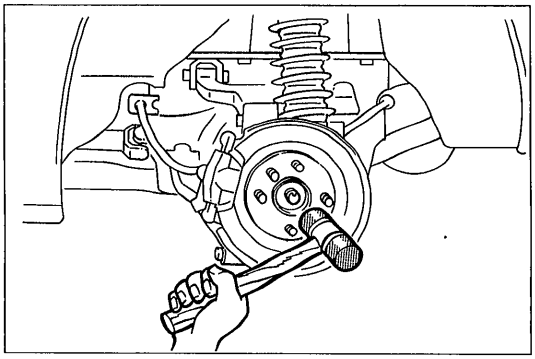


05U0MX-035

Removal note

Driveshaft

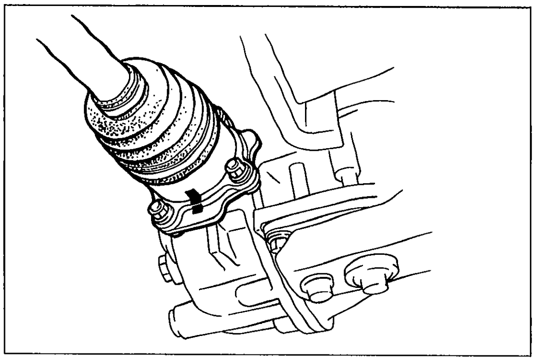
Before removing the driveshaft, mark the driveshaft and output shaft for proper installation.



05U0MX-036

Note

- **If the driveshaft is stuck to the wheel hub, install a used locknut so that it is flush with the end of the shaft, and tap the nut with a plastic hammer.**



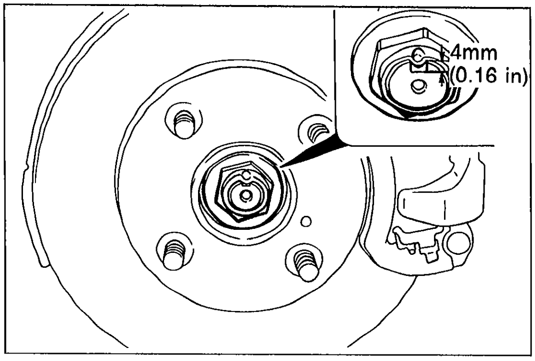
05U0MX-037

Installation note

Driveshaft

Align the marks and install the driveshaft.

Tightening torque:
54—64 N·m (5.5—6.5 m-kg, 40—47 ft-lb)



05U0MX-038

Locknut

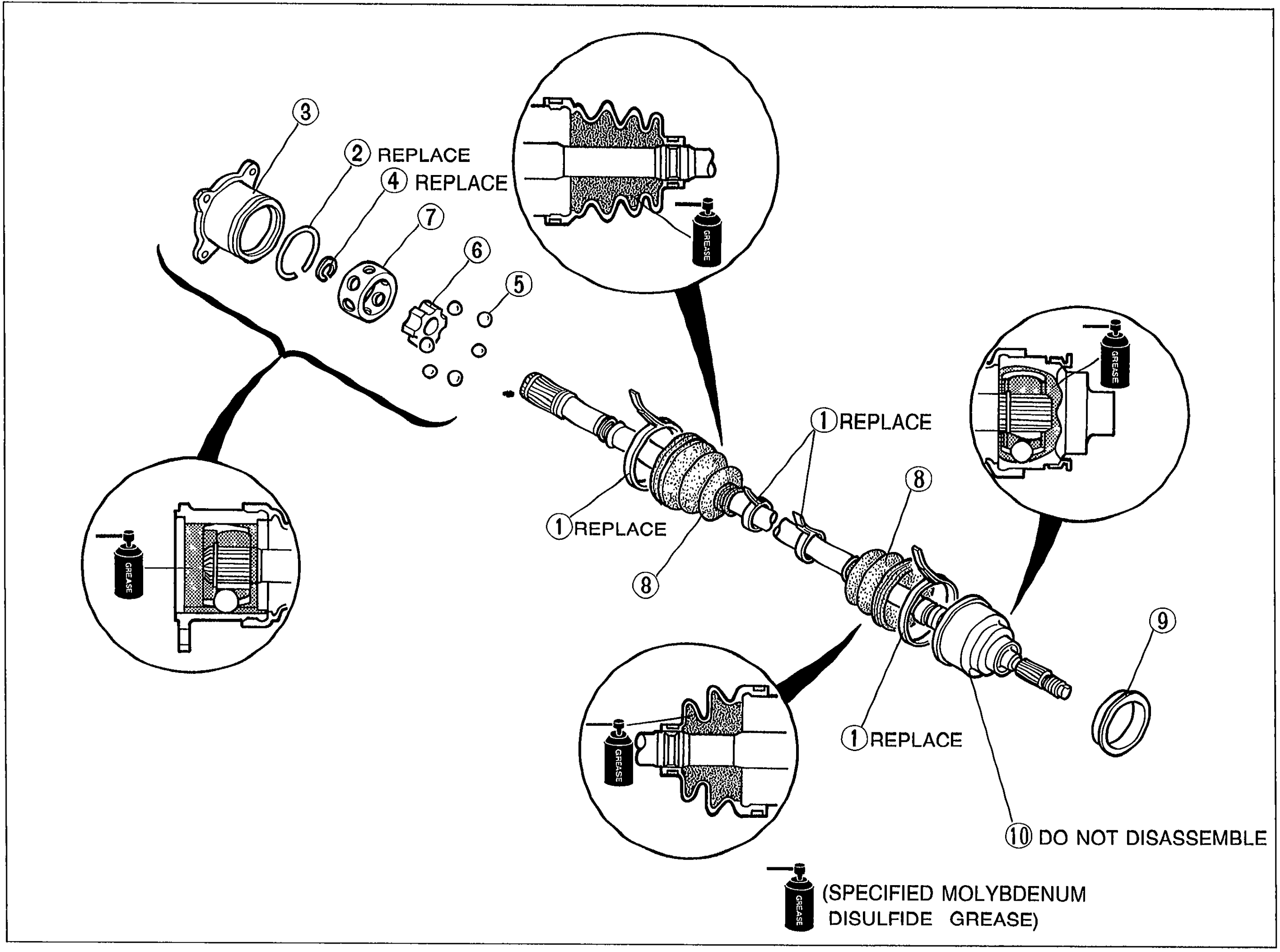
Install a new locknut and stake it.

Tightening torque:
216—294 N·m (22—30 m-kg, 159—217 ft-lb)

Overhaul

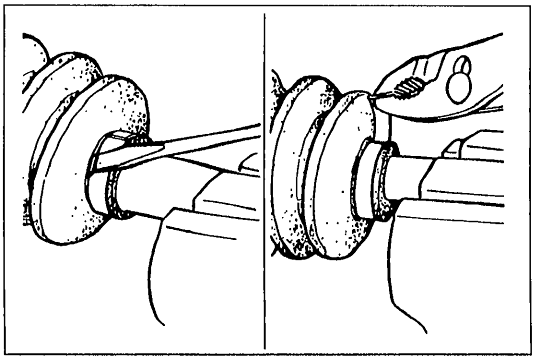
Caution
- **Secure the joint in a vise with protective material (such as copper plates) on the vise jaws.**
- **Be careful that dust or other foreign material does not enter the joint while the work is being performed.**
- **Do not disassemble the wheel-side ball joint.**
- **Do not wash the joint unless it is being disassembled.**

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Inspect all parts and repair or replace as necessary.
3. Assemble in the reverse order of disassembly, referring to **Assembly Note**.


③
② REPLACE
④ REPLACE
⑦
⑥
⑤
① REPLACE
⑧
① REPLACE
⑧
⑨
① REPLACE
⑩ DO NOT DISASSEMBLE
GREASE
GREASE (SPECIFIED MOLYBDENUM DISULFIDE GREASE)

05U0MX-039

1. Boot bands
   Disassembly Note .... page M–19
   Assembly Note .... page M–21
2. Clip
   Disassembly Note .... page M–19
3. Outer ring
   Inspect inside bore for wear, corrosion, and scoring
4. Snap ring
   Disassembly Note .... page M–19
5. Balls
   Disassembly Note .... page M–19
   Assembly Note .... page M–20
6. Inner ring
   Disassembly Note .... page M–19
   Assembly Note .... page M–20
7. Cage
   Disassembly Note .... page M–19
   Assembly Note .... page M–20
8. Boots
   Disassembly Note .... page M–20
   Assembly Note .... page M–20
9. Dust cover
10. Shaft and ball joint assembly
    Inspect splines for damage and wear
    Inspect wheel-side joint for excessive play and rough rotation

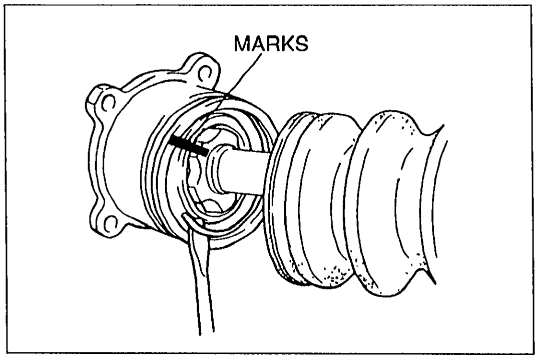


05U0MX-040

Disassembly note

Boot bands

To remove the boot bands, pry up the locking clip with a screwdriver, then raise the end of the band.



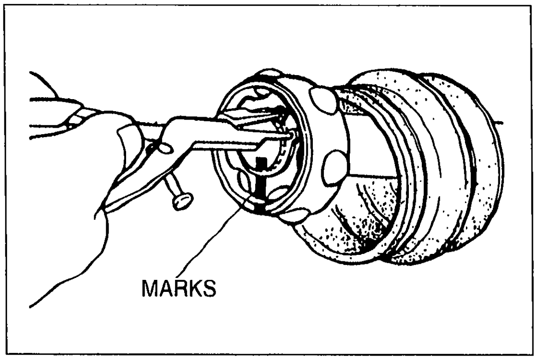
05U0MX-041

Clip

Note

- **Mark with paint; do not use a punch.**

1. Mark the driveshaft and outer ring for proper reassembly.
2. Remove the clip.



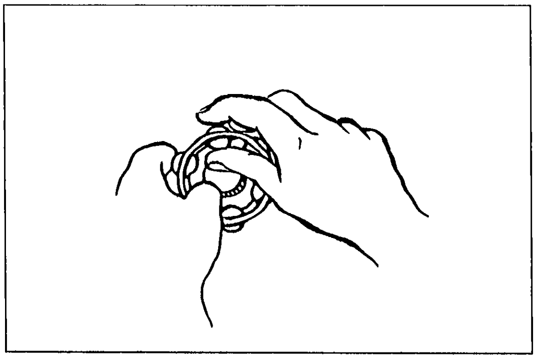
05U0MX-042

Snap ring

Note

- **Mark with paint; do not use a punch.**

1. Mark the driveshaft end and inner ring.
2. Remove the snap ring with snap ring pliers.

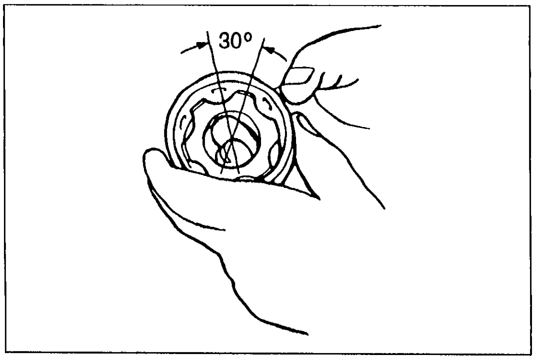


05U0MX-043

Cage, inner ring, and balls

Disassemble in the following order:

1. Insert a screwdriver between the inner ring and cage to remove the balls.

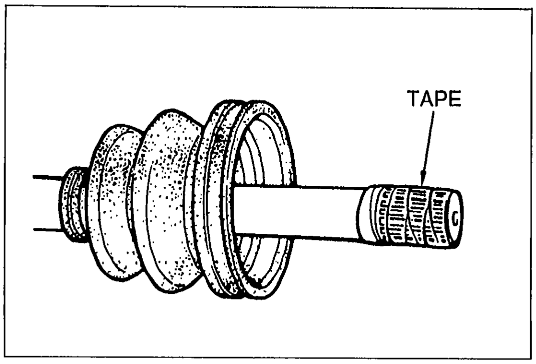


05U0MX-044

Note

- **Mark with paint; do not use a punch.**

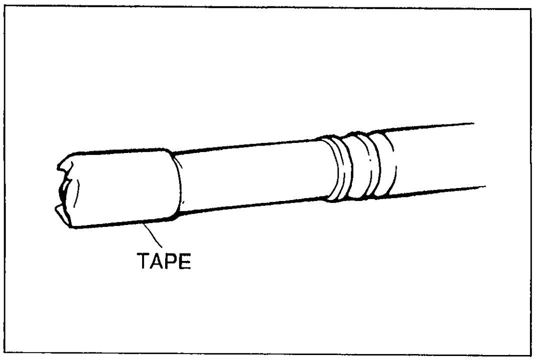
2. Mark the inner ring and cage.
3. Turn the cage approximately 30°, then pull it away from the inner ring.



05U0MX-045

Boots

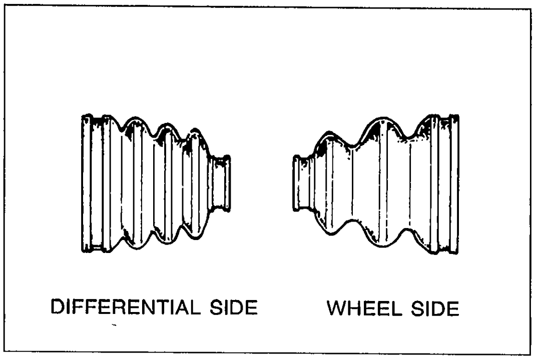
1. Wrap the shaft splines with tape.
2. Remove the boot.



05U0MX-046

Assembly note
Boots

Before putting the boot onto the shaft, wrap the shaft splines with tape.

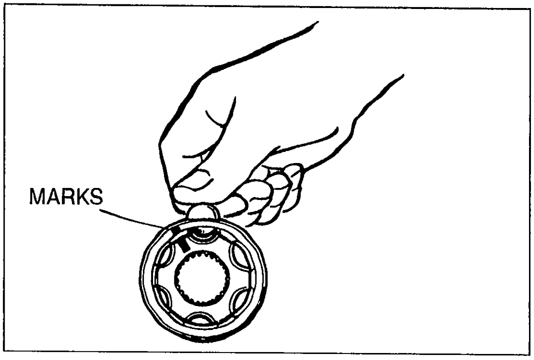


05U0MX-047

Note

- **The shape of the ball-joint boots at the wheel side and the differential side differ; be careful not to install them incorrectly.**

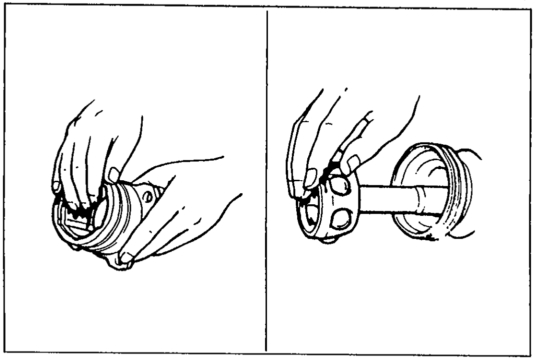
Outer diameter of large boot end
Diffrential side: 87.4mm (3.441 in)
Wheel side : 90.8mm (3.575 in)



05U0MX-048

Cage, inner ring, and balls

1. Align the marks and install the balls to the inner ring.



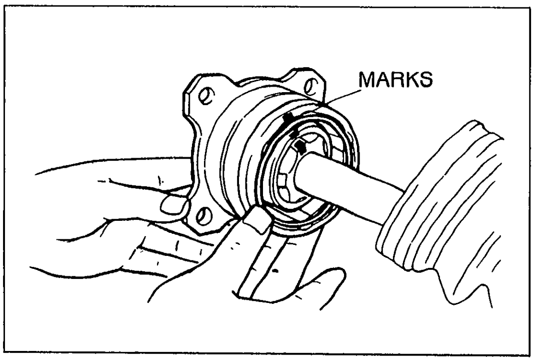
05U0MX-049

Caution

- **Do not use any other than the specified grease.**

2. Apply the specified grease **(molybdenum disulfide)** to the joints and boots.

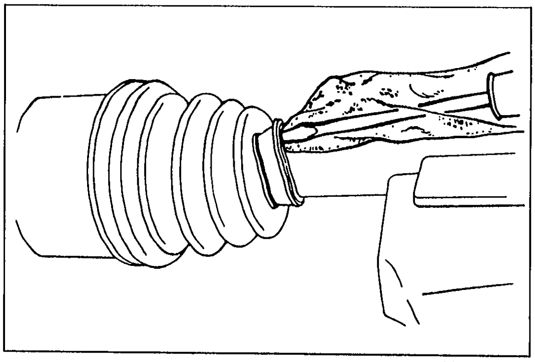
Total quantity
Diffrential side: 75—95 g (2.65—3.35 oz)
Wheel side : 55—75 g (1.94—2.65 oz)



05U0MX-050

3. Align the marks, then install a new clip.

Boot bands

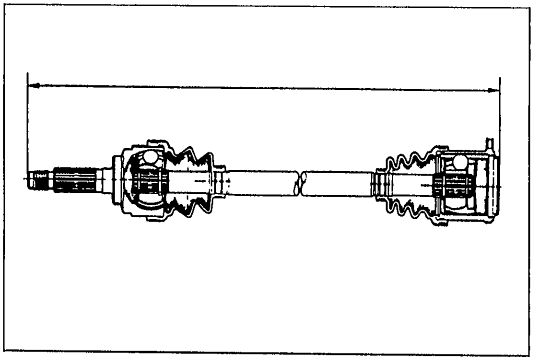


05U0MX-051

Caution

- **Be sure the boot is not dented or twisted.**
- **Carefully lift up the small end of the boot to release any trapped air.**

1. Set the boots onto the rings.



05U0MX-052

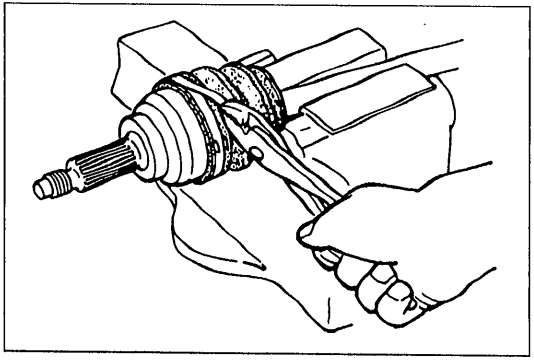
2. Measure the driveshaft length.

Standard length:659.7—669.7mm (25.972—26.366 in)

If not within specification, return to Step 1.

Note

- **Standard length (On-vehicle): 659.3mm (25.957 in)**



05U0MX-053

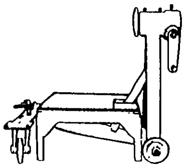
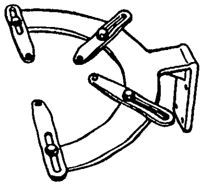
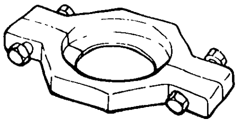
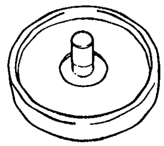
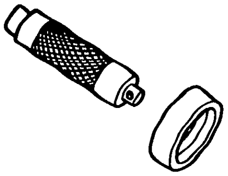
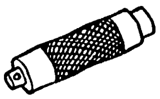
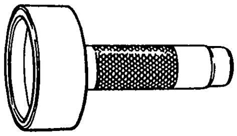
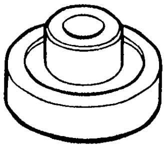
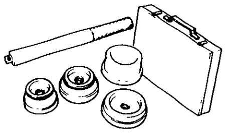
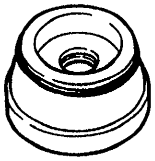
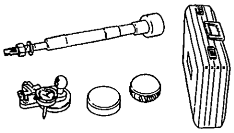
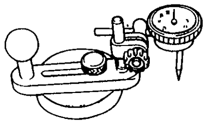
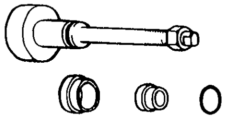
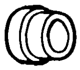
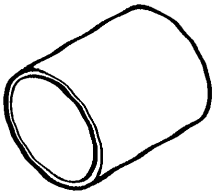
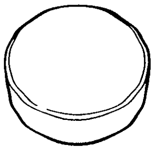
Note

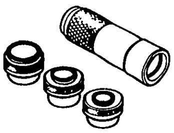
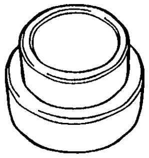
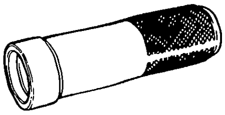
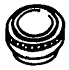
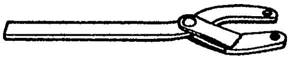
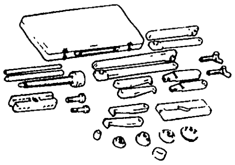
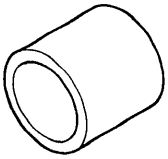
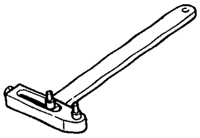
- **Always use a new band.**
- **The band should be folded in the direction opposite the forward revolving direction of the driveshaft.**

3. Fold the band back by pulling on the end of it with pliers.
4. Lock the end of the band by bending the locking clips.

DIFFERENTIAL

PREPARATION
SST

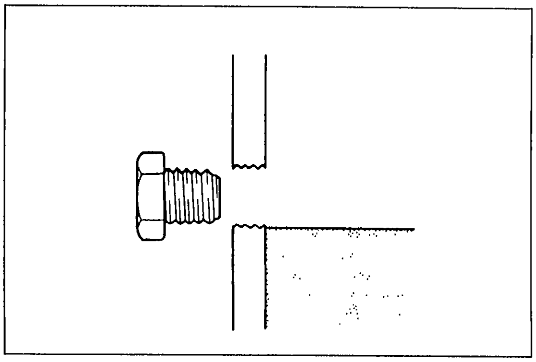
49 0107 680A Engine stand 	For disassembly and assembly of differential	49 M005 561 Hanger, differential carrier 	For disassembly and assembly of differential
49 0636 145 Puller, fan pulley boss 	For removal of bearing inner race (side bearing)	49 N034 213 Installer, rubber bushing 	For installation of differential mounting rubber
49 G030 795 Installer, oil seal 	For installation of oil seal	49 G030 797 Handle (Part of 49 G030 795) 	For installation of bearing outer race
49 B001 795 Installer, oil seal 	For installation of oil seal (output shaft)	49 H033 101 Remover, bearing 	For installation of bearing outer race (front bearing)
49 F027 0A1 Installer set, bearing 	For installation of bearing	49 F027 005 Attachment $\phi62$ (Part of 49 F027 0A1) 	For installation of bearing outer race (rear bearing)
49 F027 0A0 Gauge set, pinion height adjustment 	For adjustment of pinion height	49 0727 570 Gauge body, pinion height (Part of 49 F027 0A0) 	For adjustment of pinion height
49 8531 565 Pinion model 	For adjustment of pinion height	49 8531 567 Collar A (Part of 49 8531 565) 	For adjustment of pinion height
49 H027 001 Collar 	For adjustment of pinion height	49 N027 001 Gauge block 	For adjustment of pinion height

49 D017 2A1 Installer set, bearing 	For installation of bearing	49 F401 336B Attachment B (Part of 49 D017 2A1) 	For installation of bearing inner race (rear bearing)
49 F401 331 Body (Part of 49 D017 2A1) 	For installation of bearing inner race (rear bearing)	49 F401 337A Attachment C (Part of 49 D017 2A1) 	For installation of bearing inner race (side bearing)
49 S120 710 Holder, coupling flange 	For removal and installation of companion flange	49 0839 425C Puller set, bearing 	For removal and installation of companion flange
49 U027 003 Installer, oil seal 	For installation of oil seal (companion flange)	49 0259 720 Wrench, differential side bearing adjusting nut 	For adjustment of drive pinion and ring gear backlash

05U0MX-054

DIFFERENTIAL OIL

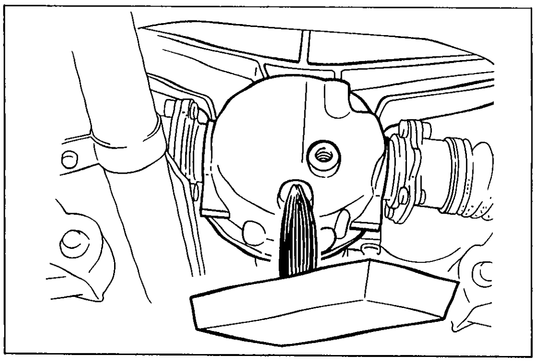
Inspection


9MU0MX-033

1. Remove the filler plug.
2. Verify that the oil is at the bottom of the filler plug hole. If it is low, add the specified oil.
3. Install the filler plug.

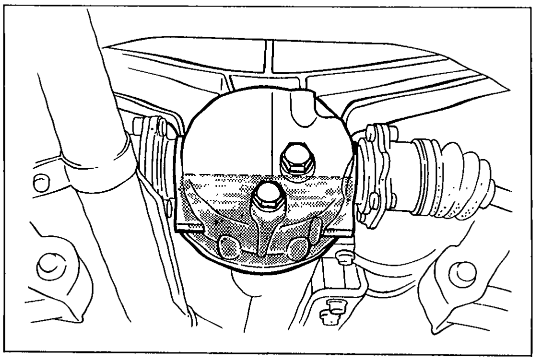
Tightening torque:
39—54 N·m (4.0—5.5 m-kg, 29—40 ft-lb)

Replacement


97U0MX-048

1. Remove the filler and drain plugs.
2. Drain the differential oil into a suitable container.
3. Wipe the plugs clean.
4. Install the drain plug and washer.

Tightening torque:
39—54 N·m (4.0—5.5 m-kg, 29—40 ft-lb)


05U0MX-055

5. Add the specified oil from the filler plug until the level reaches the bottom of the plug hole.

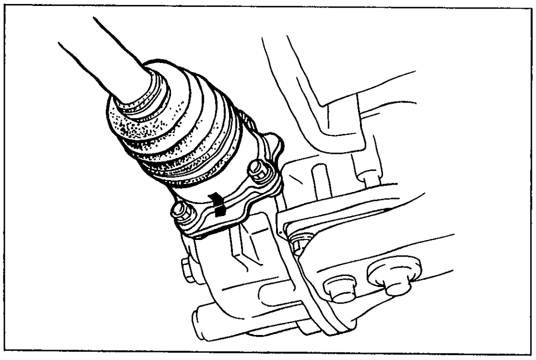
Specified oil
Type:
Above −18°C (0°F): API GL-5, SAE 90
Below −18°C (0°F): API GL-5, SAE 80W
Capacity: 0.65 liter (0.69 US qt, 0.57 Imp qt)

6. Install the filler plug.

Tightening torque:
39—54 N·m (4.0—5.5 m-kg, 29—40 ft-lb)

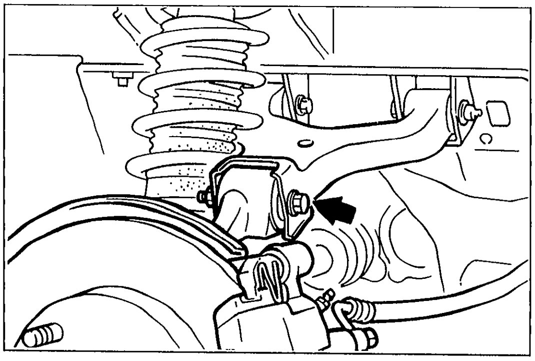
OIL SEAL (OUTPUT SHAFT)

Replacement

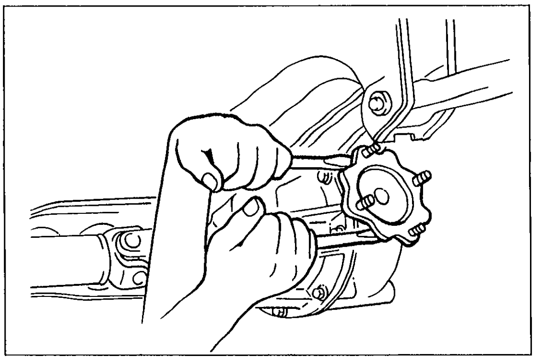

05U0MX-056

1. Jack up the vehicle and support it with safety stands.
2. Drain the differential gear oil.

Note
- **Mark the driveshaft and output shaft flanges for proper reassembly.**


05U0MX-057

3. Remove the upper arm installation bolt and nut.



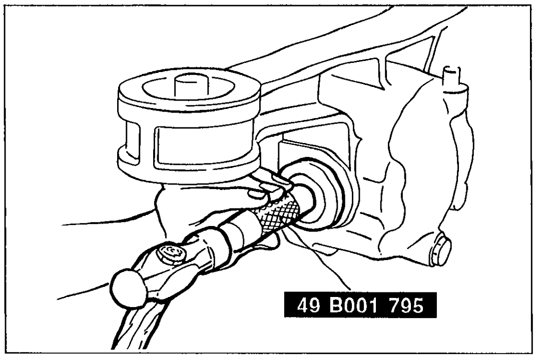
05U0MX-058

4. Separate the driveshaft from the differential and suspend it.

Note

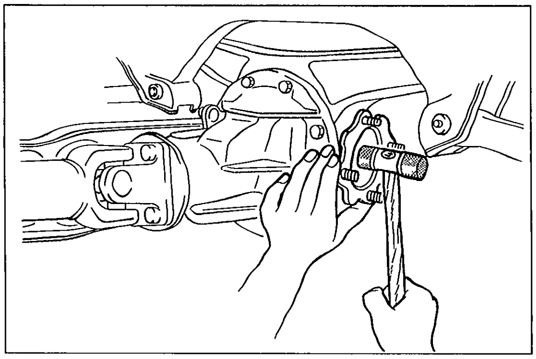
- **Use caution during the removal operation, because the shaft may suddenly drop.**

5. Remove the output shaft with two pry bars as shown in the figure.
6. Remove the oil seal.



05U0MX-059

7. Apply lithium-based grease to the new oil seal lip and install it with the **SST**.



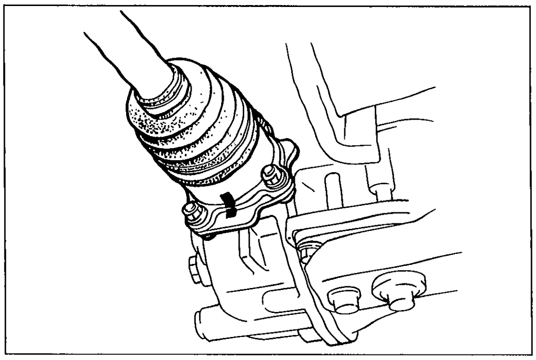
05U0MX-060

8. Install the new clips.

Caution

- **With viscous L.S.D., the right output shaft is longer than the left shaft.**

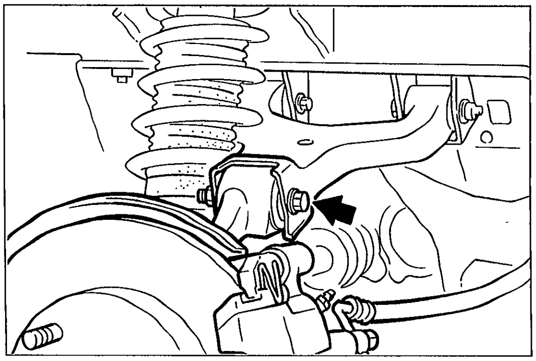
9. Install the output shaft into the side gears by lightly tapping with a plastic hammer.
10. Verify that the output shaft is hooked into the side gears by pulling it by hand.



05U0MX-061

11. Align the marks and install the driveshaft.

Tightening torque:
54—64 N·m (5.5—6.5 m-kg, 40—47 ft-lb)

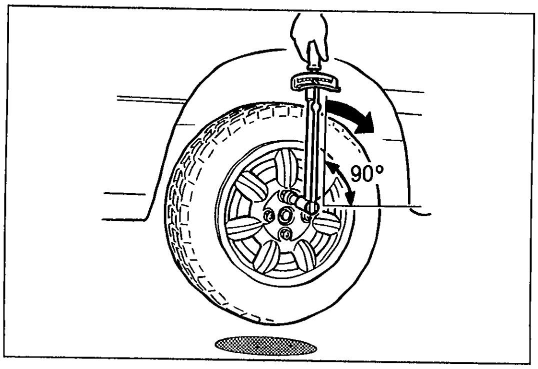


05U0MX-062

12. Install the upper arm installation bolt and nut.

Tightening torque:
46—67 N·m (4.7—6.8 m-kg, 34—49 ft-lb)

13. Add the specified oil.
14. Adjust the rear wheel alignment. (Refer to Section R.)



05U0MX-063

OPERATION INSPECTION

Viscous Limited Slip Differential

1. Turn off the engine and shift the transmission into reverse.
2. Block the front wheels with wheel chocks.
3. Jack up the rear wheels and support the vehicle with safety stands.
4. Release the parking brake.
5. Using a torque wrench on a wheel lug nut, measure the time it takes to turn the wheel **90°** while applying the specified torque.

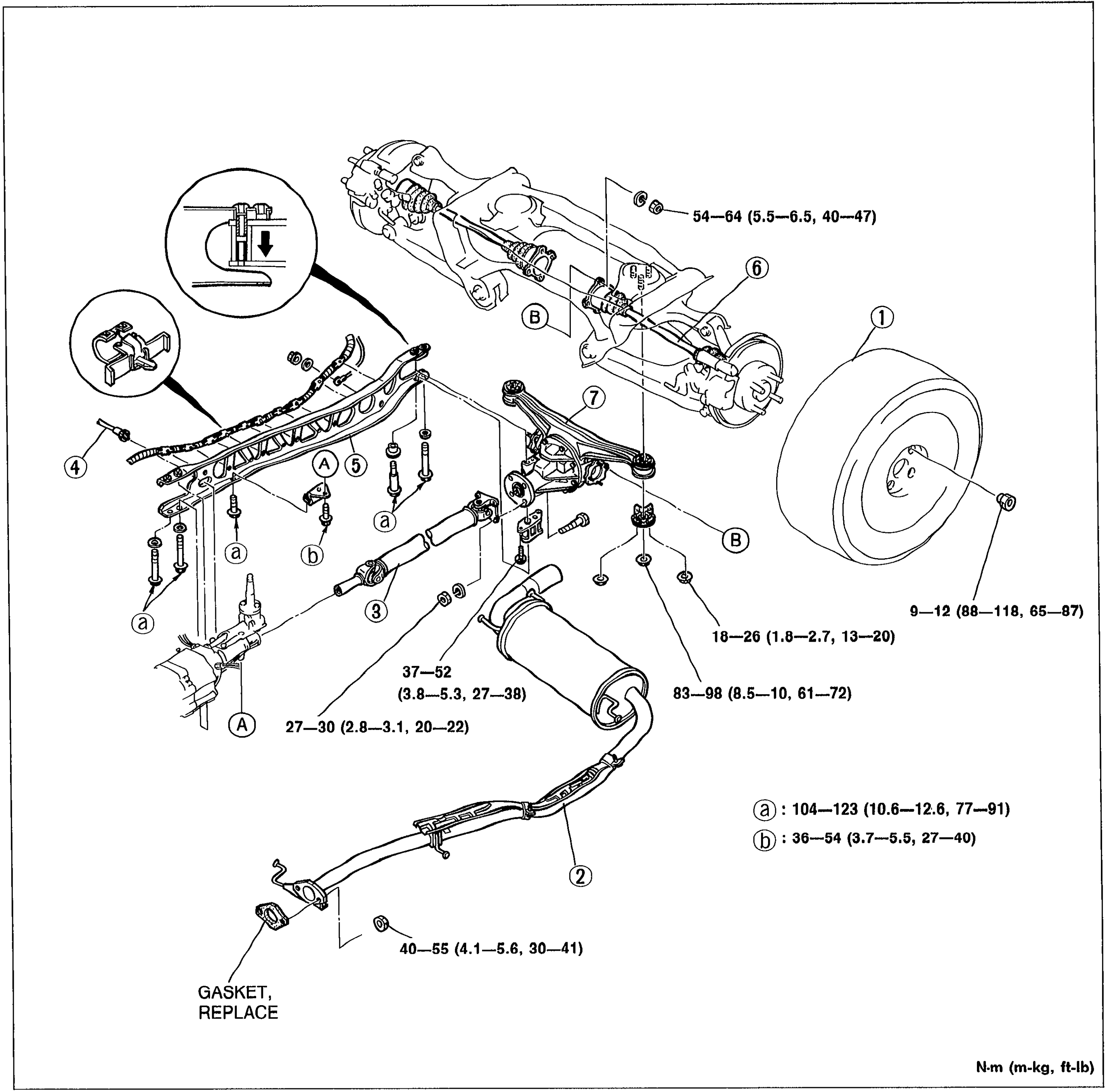
   Specified torque: 15 N·m (1.5 m-kg, 11 ft-lb)
   Specified time: 4.0 sec. min.

6. If not as specified, replace the viscous limited slip differential and fill the differential with new specified oil. (Refer to pages M–24, 32.)

DIFFERENTIAL, STANDARD; DIFFERENTIAL, VISCOUS LIMITED SLIP (VISCOUS L.S.D.)

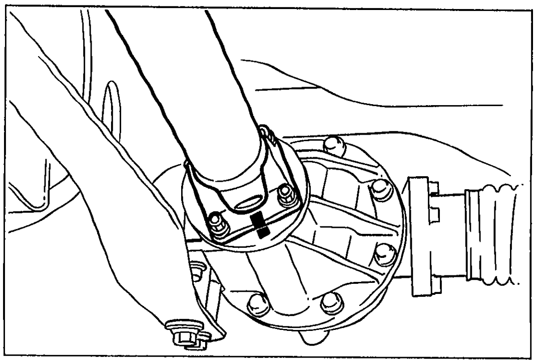
Removal / Installation

1. Drain the differential oil.
2. Remove in the order shown in the figure, referring to **Removal Note**.
3. Install in the reverse order of removal, referring to **Installation Note**.
4. Add the specified oil to the specified level.


54—64 (5.5—6.5, 40—47)
⑥
①
Ⓑ
⑦
④
Ⓐ ⑤
ⓐ
ⓑ
Ⓑ
ⓐ
ⓐ
③
9—12 (88—118, 65—87)
18—26 (1.8—2.7, 13—20)
37—52
(3.8—5.3, 27—38)
83—98 (8.5—10, 61—72)
Ⓐ
27—30 (2.8—3.1, 20—22)
ⓐ : 104—123 (10.6—12.6, 77—91)
ⓑ : 36—54 (3.7—5.5, 27—40)
②
40—55 (4.1—5.6, 30—41)
GASKET,
REPLACE
N·m (m-kg, ft-lb)

05U0MX-064

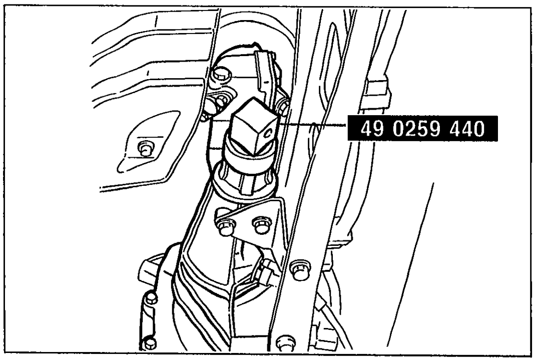
1. Rear wheel
2. Exhaust pipe
3. Propeller shaft
   Removal Note .... page M–28
   Installation Note .... page M–31
4. Speedometer cable
5. Power plant frame (PPF)
   Removal Note .... page M–28
   Installation Note .... page M–30
6. Driveshaft
   Removal Note .... page M–29
7. Differential
   Removal Note .... page M–29
   Installation Note .... page M–30
   Overhaul .... page M–32



05U0MX-065

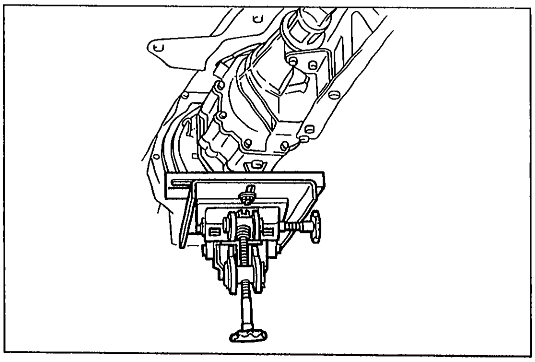
Removal note
Propeller shaft

1. Before removing the propeller shaft, mark the flanges for correct installation.



05U0MX-066

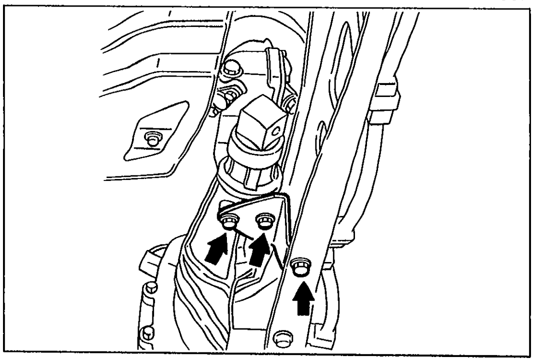
2. When the propeller shaft is removed from the extension housing, immediately install the **SST** to prevent oil leakage.



05U0MX-067

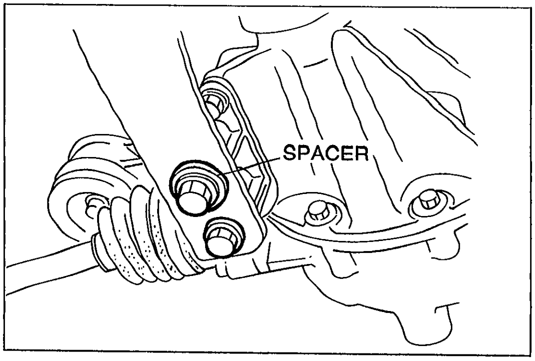
Power plant frame (PPF)

1. Disconnect the wire harness from the PPF.
2. Support the transmission with a jack.



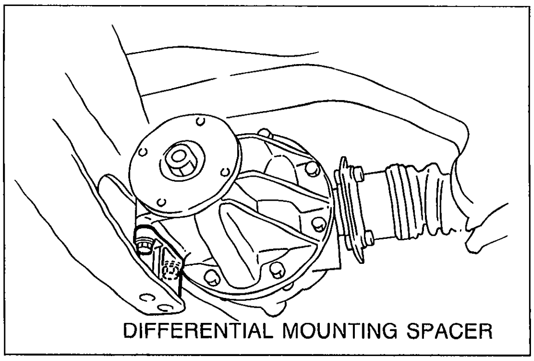
05U0MX-068

3. Remove the power plant frame bracket.

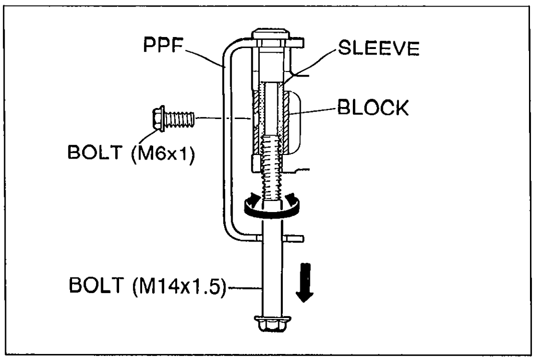


05U0MX-069

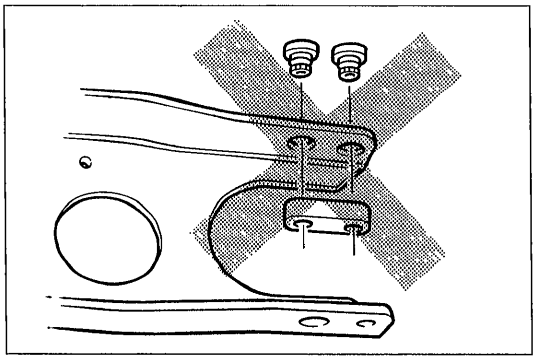
4. Remove the differential-side bolts, and pry out the spacer.


DIFFERENTIAL MOUNTING SPACER
05U0MX-125

5. Remove the differential mounting spacer.

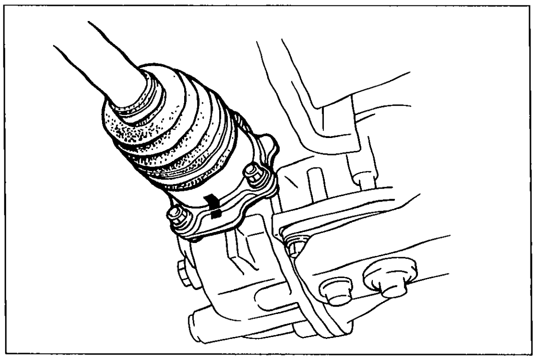

PPF
SLEEVE
BLOCK
BOLT (M6x1)
BOLT (M14x1.5)
05U0MX-070

6. Turn a bolt (M14x1.5) into the sleeve.
7. Twist and pull the bolt downward.
8. Install a bolt (M6x1) into the hole in the block to hold the sleeve, and remove the long bolt (M14x1.5).
9. Remove the bolt (M6x1).



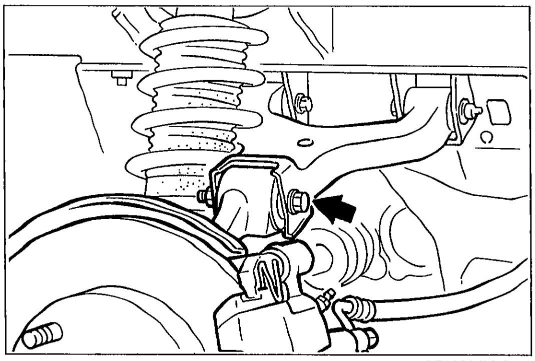
Caution
- **Do not remove the spacers shown in the figure from the PPF.**
- **If they are removed, repalce the PPF as an assembly.**

10. Remove the transmission-side bolts, and remove the PPF.



Driveshaft

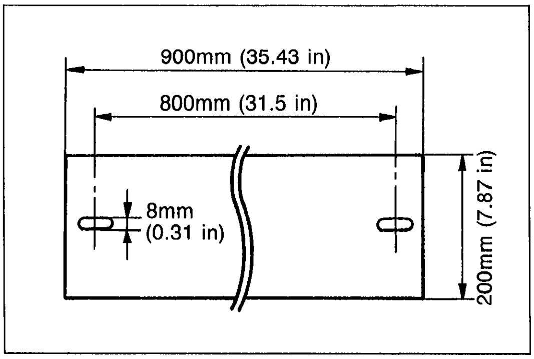
Mark the driveshaft and output shaft for proper installation.



Differential
1. Support the differential with a jack.
2. Down and move it forward.

Note
- **If it is difficult to separate the driveshaft from the output shaft, remove one side upper arm installation bolt and nut.**

3. Separate the driveshaft from the output shaft.

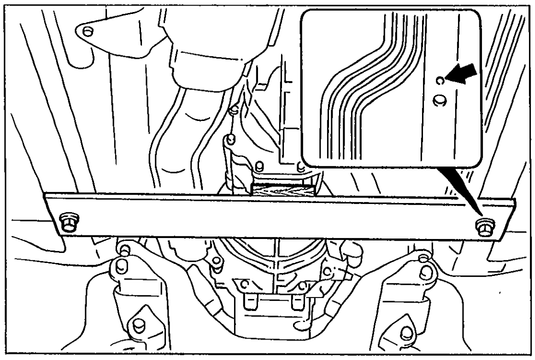


05U0MX-074

Note

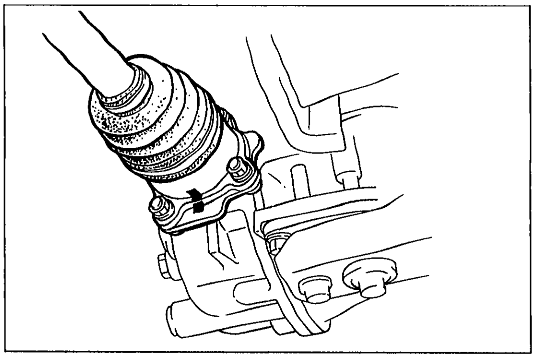
- **After removing the differential, support the transmission as follows to prevent damaging the fire wall, crank angle sensor, and engine mount.**

1. Prepare a steel plate as shown in the figure, a wooden block, bolts (8x1.25mm), and washers.



05U0MX-075

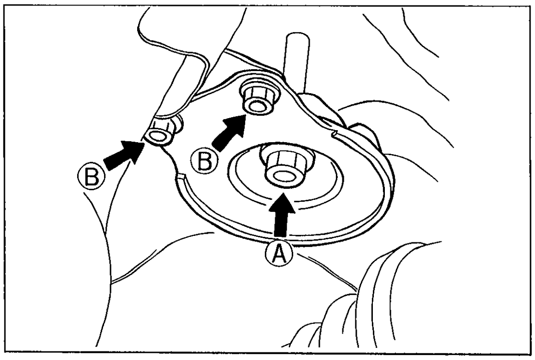
2. Install the parts as shown in the figure.



05U0MX-076

Installation note
Differential

1. Connect the driveshaft to the output shaft with the marks aligned.



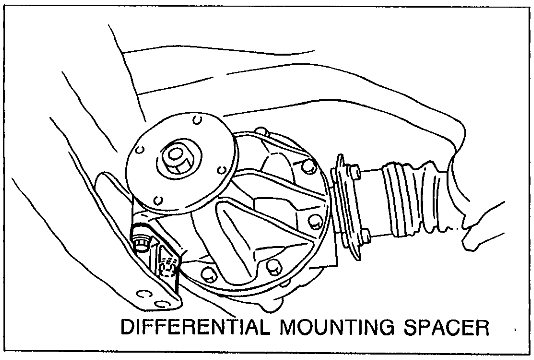
05U0MX-077

2. Install the differential.

Tightening torque:
Ⓐ **83—98 N·m (8.5—10 m-kg, 61—72 ft-lb)**
Ⓑ **18—26 N·m (1.8—2.7 m-kg, 13—20 ft-lb)**

Caution

- **Adjust the rear wheel alignment after installation, if the upper arm installation bolt and nut are removed. (Refer to Section R.)**



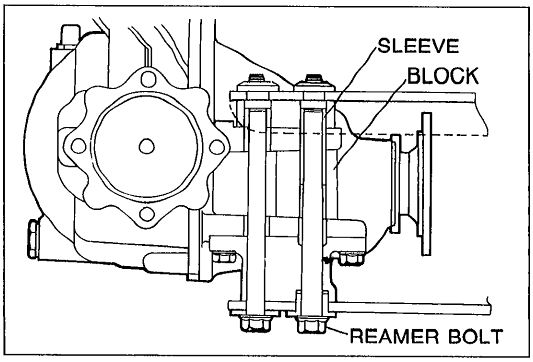
05U0MX-078

Power plant frame (PPF)

1. Install the differential mounting spacer.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

2. Support the transmission with a jack so that it is level.
3. Position the PPF and snugly tighten the transmission-side bolts by hand.

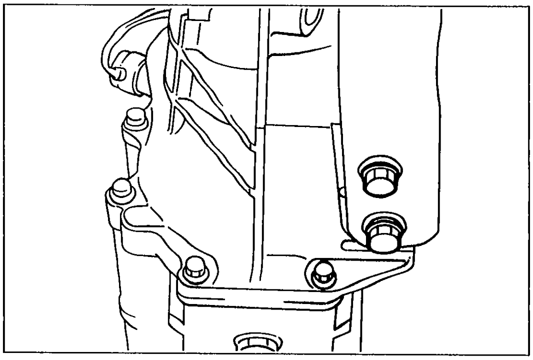


05U0MX-079

4. Verify that the sleeve is installed into the block.

Note
- **The reamer bolt is installed in the forward hole.**

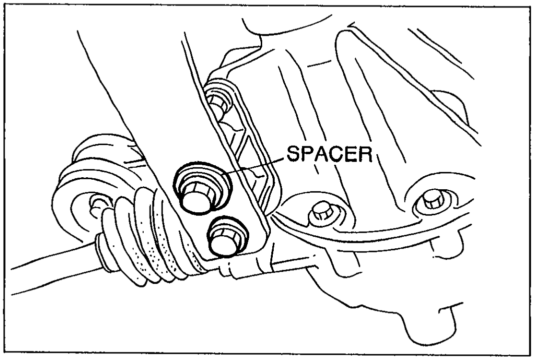
5. Install the spacer and bolts and snugly tighten them.



05U0MX-080

6. Snugly install the power plant frame bracket.
7. Tighten the transmission-side bolts.

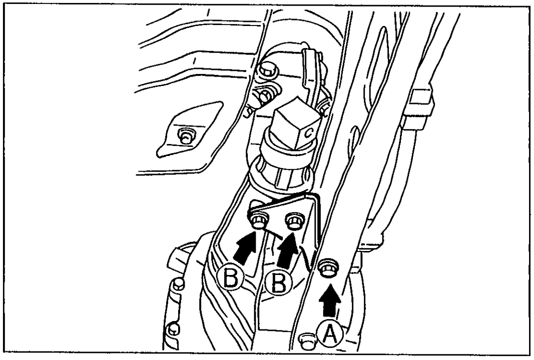
Tightening torque:
104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)



05U0MX-081

8. Tighten the differential-side bolts.

Tightening torque:
104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)

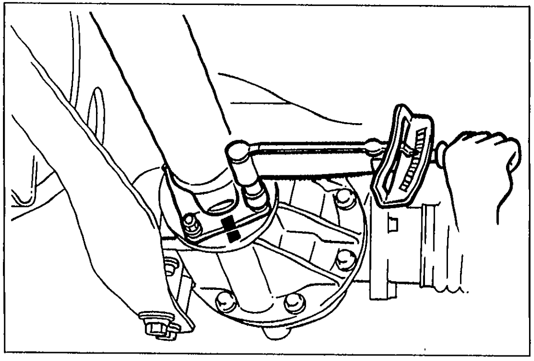


05U0MX-082

9. Install the power plant frame bracket.

Tightening torque:
Ⓐ 104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)
Ⓑ 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)

10. Remove the jack, and connect the wire harness.



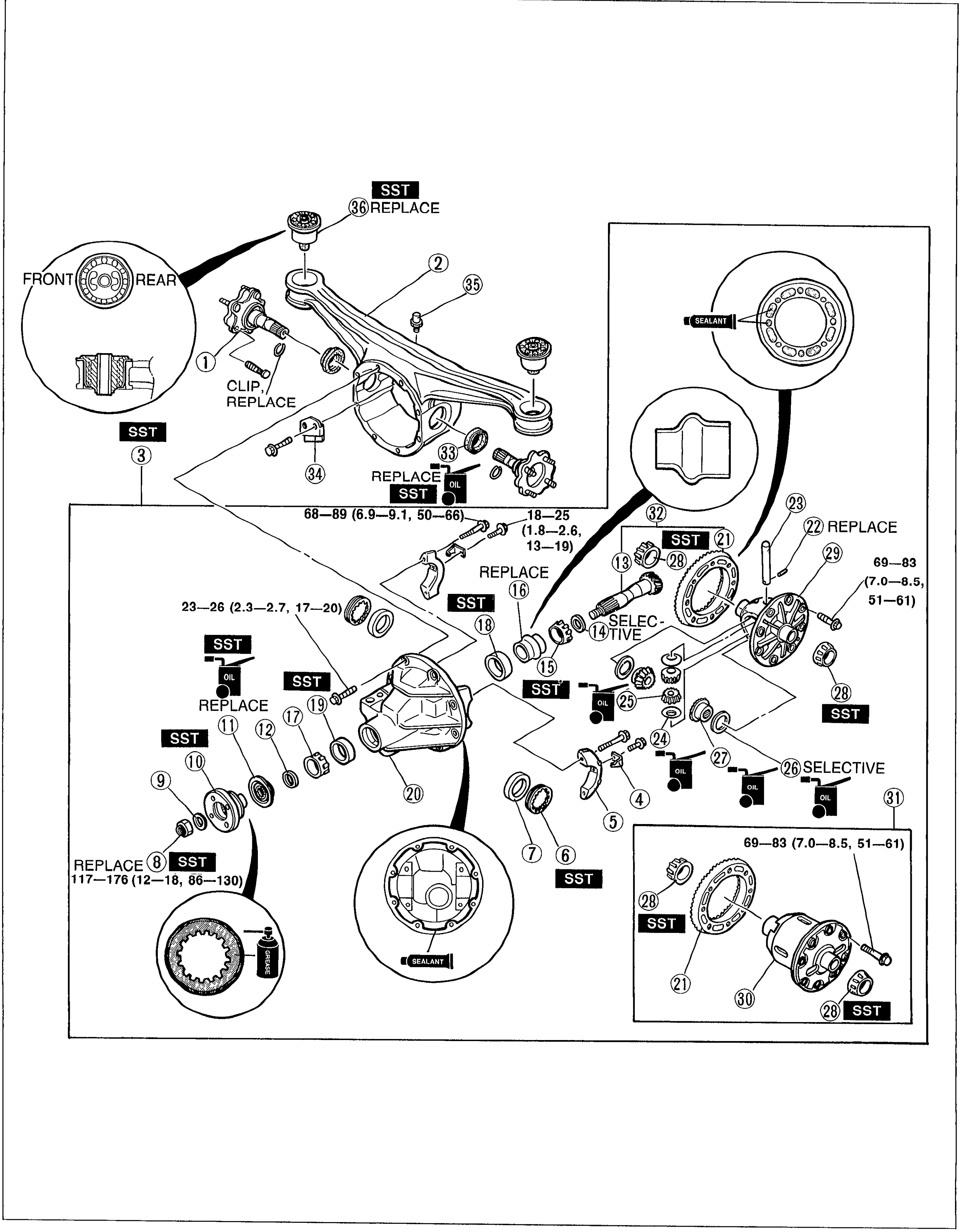
05U0MX-083

Propeller shaft
1. Remove the **SST**.
2. Align the marks, and install the propeller shaft.

Tightening torque:
27—30 N·m (2.8—3.1 m-kg, 20—22 ft-lb)

Overhaul

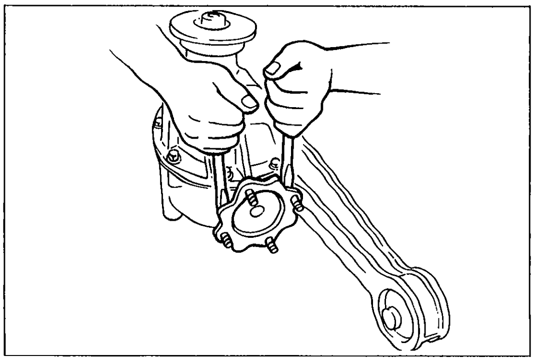
1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Inspect all parts and repair or replace as necessary.
3. Assemble in the reverse order of disassembly, referring to **Assembly Note**.


SST
㊱ REPLACE
FRONT
REAR
②
㉟
①
CLIP, REPLACE
SEALANT
SST
③
㉝
㉞
REPLACE
OIL
SST
68—89 (6.9—9.1, 50—66)
18—25 (1.8—2.6, 13—19)
㉜
㉓
㉒ REPLACE
SST ㉑
⑬
㉘
㉙
69—83 (7.0—8.5, 51—61)
REPLACE
⑯
23—26 (2.3—2.7, 17—20)
SST
⑱
⑭ SELECTIVE
SST
OIL
REPLACE
SST
⑲
⑮
SST
OIL
㉕
㉘
SST
⑪
⑫
⑰
SST
⑩
⑨
㉔
㉗
㉖ SELECTIVE
OIL
OIL
OIL
⑳
④
⑤
㉛
⑦
⑥
SST
REPLACE ⑧ SST
117—176 (12—18, 86—130)
69—83 (7.0—8.5, 51—61)
㉘
SST
㉑
㉚
㉘ SST
GREASE
SEALANT

05U0MX-084

1. Output shafts
   Disassembly Note...................... page M–34
   Assembly Note.......................... page M–43
2. Differential case
   Disassembly Note...................... page M–34
   Assembly Note.......................... page M–42
3. Differential gear assembly
   Disassembly Note...................... page M–34
4. Lock plates
   Assembly Note.......................... page M–42
5. Bearing caps
   Disassembly Note...................... page M–34
   Assembly Note.......................... page M–42
6. Adjusting nuts
   Disassembly Note...................... page M–34
   Assembly Note.......................... page M–40
7. Bearing outer races (Side bearing)
8. Locknut (Companion flange)
   Disassembly Note...................... page M–34
   Assembly Note.......................... page M–38
9. Washer
10. Companion flange
    Disassembly Note...................... page M–34
    Inspect splines for wear and damage
    Assembly Note.......................... page M–38
11. Oil seal (Companion flange)
    Assembly Note.......................... page M–38
12. Washer
13. Drive pinion
    Disassembly Note...................... page M–35
    Inspect splines for wear and damage
    Inspect individual gear teeth for wear and cracks
14. Spacer
    Assembly Note.......................... page M–36
15. Bearing inner race (Front bearing)
    Inspect for damage and rough rotation
16. Collapsible spacer
17. Bearing inner race (Rear bearing)
    Disassembly Note...................... page M–35
    Inspect for damage and rough rotation
    Assembly Note.......................... page M–38
18. Bearing outer race (Rear bearing)
    Disassembly Note...................... page M–35
    Assembly Note.......................... page M–36
19. Bearing outer race (Front bearing)
    Disassembly Note...................... page M–35
    Assembly Note.......................... page M–36
20. Differential carrier
21. Ring gear
    Inspect individual gear teeth for wear and cracks
    Assembly Note.......................... page M–40
22. Roll pin (Standard)
    Disassembly Note...................... page M–35
    Assembly Note.......................... page M–40
23. Pinion shaft (Standard)
24. Thrust washers (Standard)
25. Pinion gears (Standard)
    Inspect individual gear teeth for wear and cracks
26. Thrust washers (Standard)
    Assembly Note.......................... page M–40
27. Side gears (Standard)
    Inspect individual gear teeth for wear and cracks
28. Bearing inner races (Side bearing)
    Disassembly Note...................... page M–35
    Inspect for damage and rough rotation
    Assembly Note.......................... page M–40
29. Gear case (Standard)
30. Gear case (Viscous L.S.D.)
31. Viscous L.S.D.
32. Final gear set
33. Oil seal (Output shaft)
    On-vehicle replacement............. page M–24
    Assembly Note.......................... page M–36
34. Baffle
35. Breather
36. Differential mounting rubber
    Disassembly Note...................... page M–36
    Assembly Note.......................... page M–36

05U0MX-085

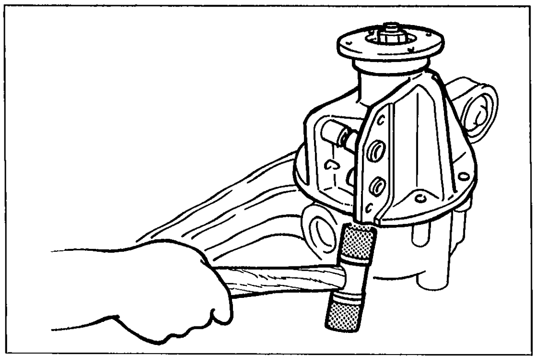


05U0MX-086

Disassembly note

Output shafts

Remove the output shafts with two pry bars as shown in the figure.



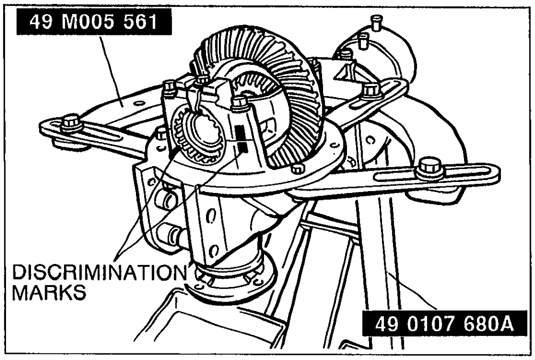
05U0MX-087

Differential case

Caution

- **Do not strike the aluminum alloy differential case.**

Strike the differential carrier with a copper hammer to separate it from the case.



05U0MX-088

Differential gear assembly

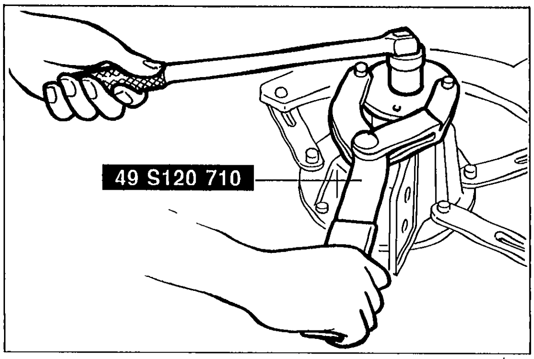
Mount the differential gear assembly on the **SST**.

Bearing caps

Mark one bearing cap and the carrier.

Adjuting nuts

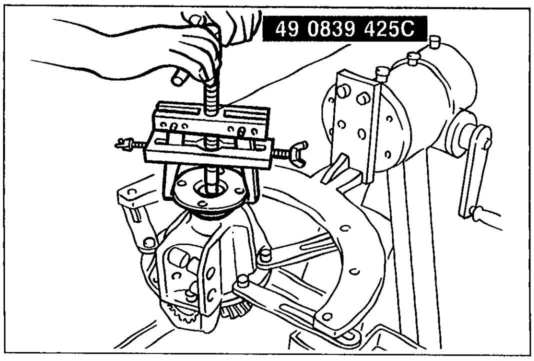
Mark one adjusting nuts and the carrier.



05U0MX-089

Locknut (Companion flange)

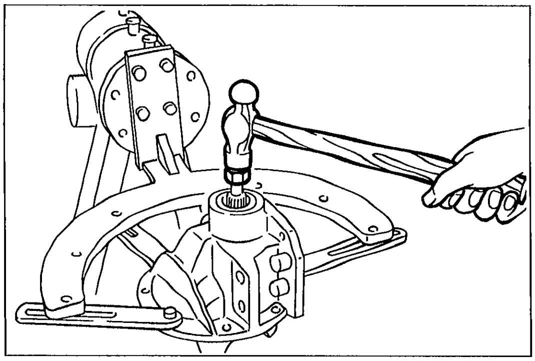
Hold the companion flange with the **SST** and remove the locknut.



05U0MX-090

Companion flange

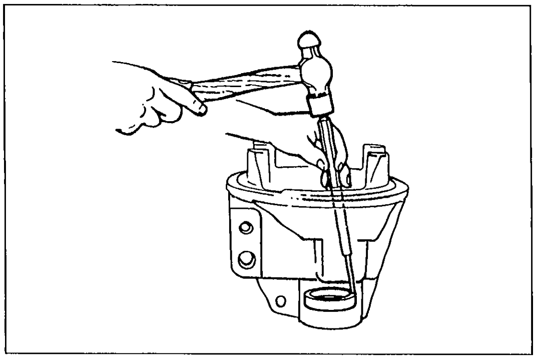
Pull the companion flange off with the **SST**.



05U0MX-091

Drive pinion

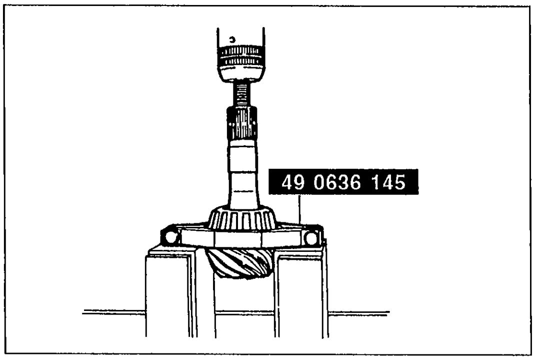
Push out the drive pinion by attaching a miscellaneous lock-nut to the drive pinion, and tapping it with a copper hammer.



05U0MX-092

Bearing outer races (Front, and rear bearing)

Remove the bearing outer races using the two grooves in the carrier and alternately tapping the sides of the races.



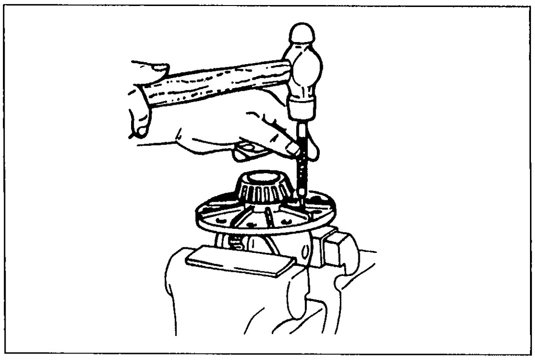
05U0MX-093

Bearing inner race (Rear bearing)

Note

- **Support the drive pinion by hand so that it will not fall.**

Remove the bearing inner race (rear bearing) with the **SST**.



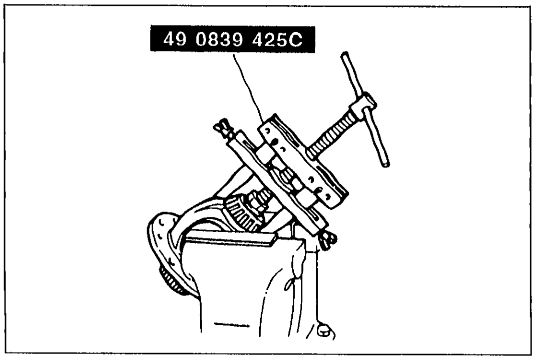
05U0MX-094

Roll pin

Note

- **Use protective plates in the vise.**
- **Tap out toward the ring gear side.**

Secure the gear case in a vise and remove the roll pin.



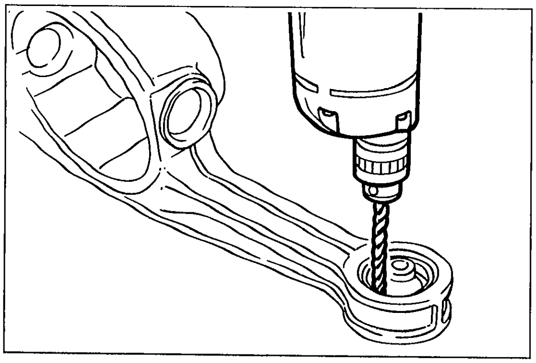
05U0MX-095

Bearing inner races (Side bearing)

Note

- **Use protective plates in the vise.**
- **Identify the bearings so that they can later be reinstalled in the same position.**

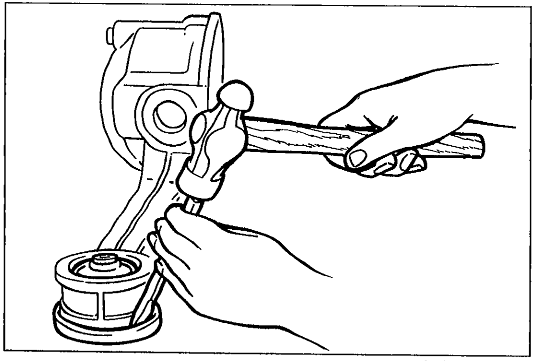
Remove the bearing inner races (side bearing) from the gear case with the **SST**.



97U0MX-068

Differential mounting rubber

1. Drill holes around the differential mounting rubber.

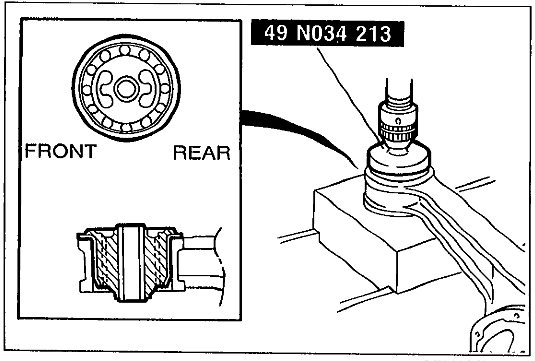


97U0MX-069

Note

- **Use a new mounting rubber when reassembling.**

2. Hit the edge of the differential mounting rubber to remove it.



05U0MX-096

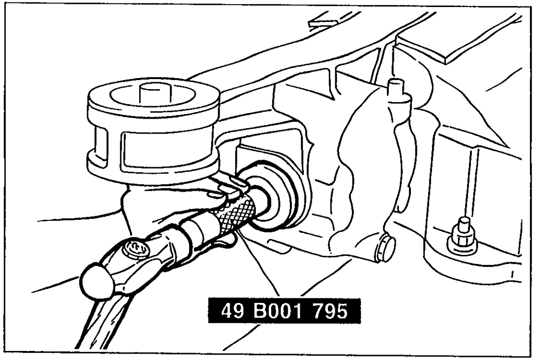
Assembly note
Differential mounting rubber

Note

- **Install the mounting rubber with the voids facing fore and aft.**

Press in the new differential mounting rubber with the **SST**.

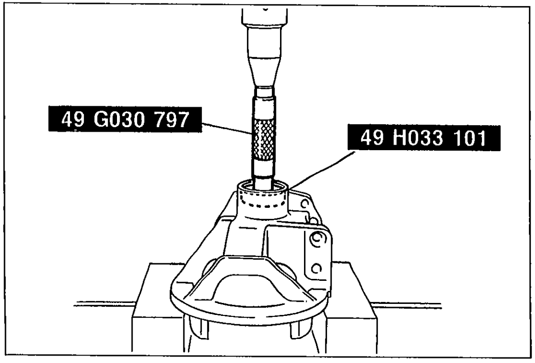
Press force: 2,000 kg (2 tons)



05U0MX-097

Oil seal (Output shaft)

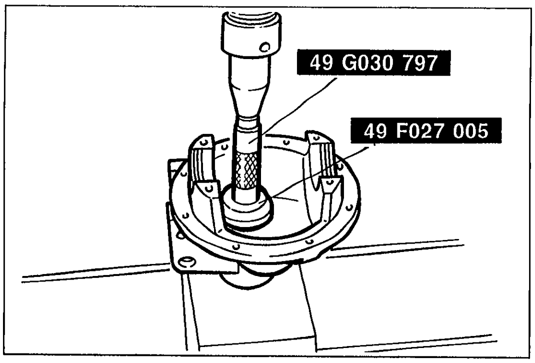
Apply lithium based grease to the new oil seal lip and install it with the **SST**.



05U0MX-098

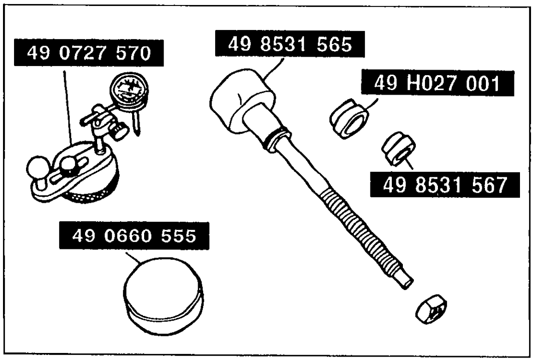
Adjustment of pinion height

1. Install the bearing outer race (front bearing) with the **SST**.


49 G030 797
49 F027 005

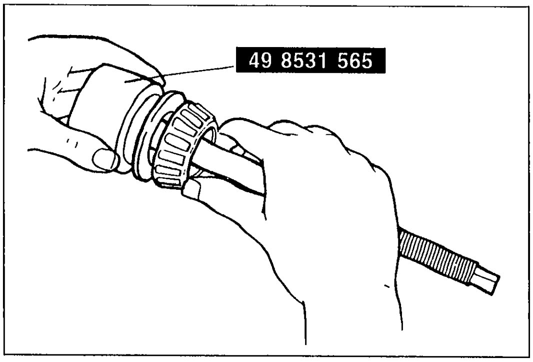
05U0MX-099

2. Install the bearing outer race (rear bearing) with the **SST**.


49 0727 570
49 8531 565
49 H027 001
49 8531 567
49 0660 555

69G09X-169

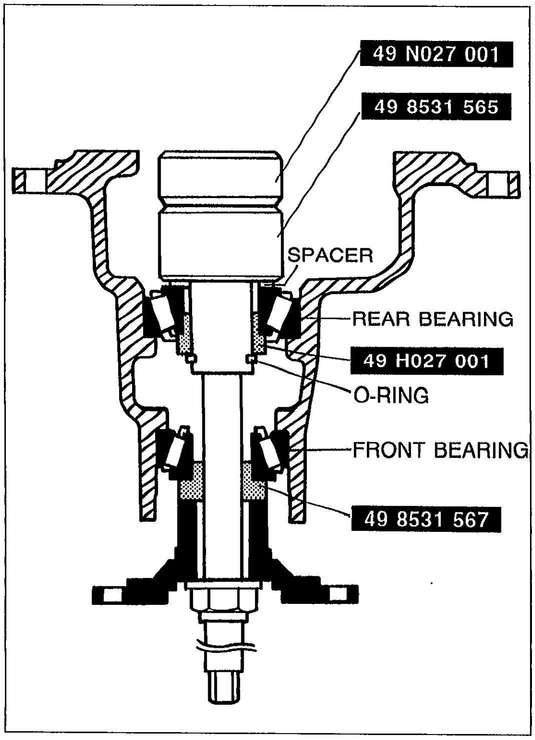
3. Adjust the drive pinion height as follows with the **SST**.



05U0MX-100

Note
- **Use the spacer that was removed.**

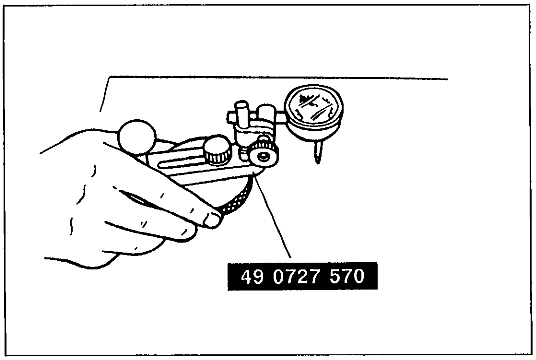
4. Install the spacer and bearing inner race (rear bearing) onto the **SST**.


49 N027 001
49 8531 565
SPACER
REAR BEARING
49 H027 001
O-RING
FRONT BEARING
49 8531 567

05U0MX-101

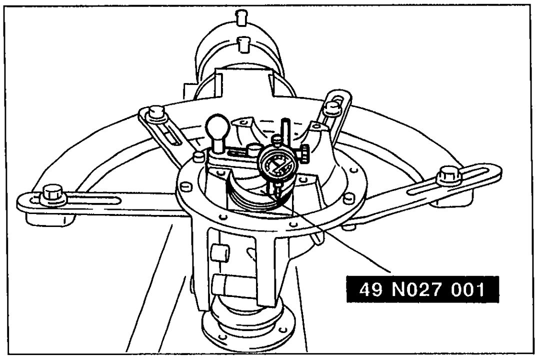
Note
- **Use the same spacer and nut removed during disassembly.**

5. Assemble the spacer, bearing inner race (rear bearing), and **SST**.
   Secure the **SST** with the O-ring. Install this assembly in the carrier.
   Install the bearing inner race (front bearing), the **SST**, companion flange, washer, and nut.
6. Tighten the nut just enough so that the companion flange can still be turned by hand.



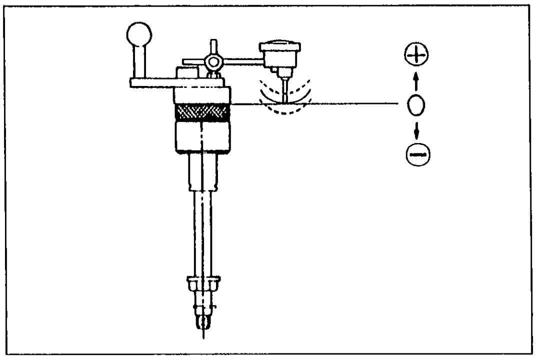
69G09X-172

7. Place the **SST** on the surface plate and set the dial indicator to "Zero".



05U0MX-102

8. Place the **SST** atop the drive pinion model. Set the gauge body atop the gauge block.
9. Place the feeler of the dial indicator so that it contacts where the bearing inner race (side bearing) is installed in the carrier. Measure the lowest position on the left and right sides of the carrier.



05U0MX-103

10. Add the two (left and right) values obtained in Step 9 and divide the total by 2.

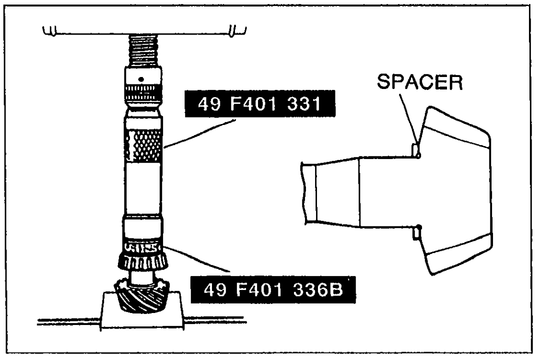
Specification: 0mm (0 in)

Mark	Thickness	Mark	Thickness
08	3.08mm (0.1213 in)	29	3.29mm (0.1295 in)
11	3.11mm (0.1224 in)	32	3.32mm (0.1307 in)
14	3.14mm (0.1224 in)	35	3.35mm (0.1319 in)
17	3.17mm (0.1248 in)	38	3.38mm (0.1331 in)
20	3.20mm (0.1260 in)	41	3.41mm (0.1343 in)
23	3.23mm (0.1271 in)	44	3.44mm (0.1354 in)
26	3.26mm (0.1283 in)	47	3.47mm (0.1366 in)

05U0MX-104

Note
- **Spacers are available in increments of 0.03mm. Select the spacer thickness that is closest to that necessary.**

11. If not within specification, adjust the pinion height by selection of a spacer.



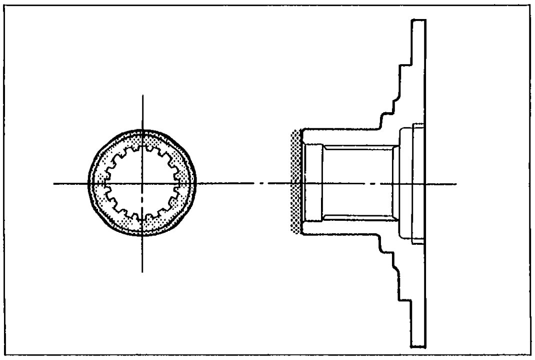
05U0MX-105

Adjustment of drive pinion preload

1. Install the spacer.

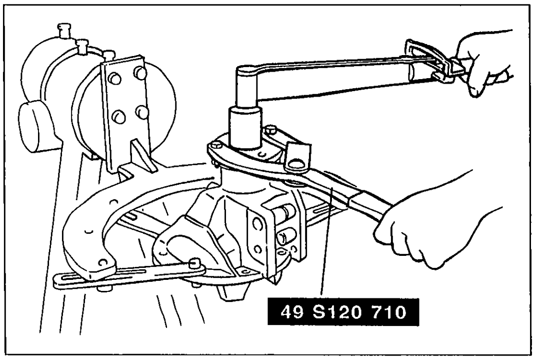
Note
- **Press on until the force required suddenly increases.**
- **Install the spacer selected for the pinion height adjustment, being careful that the installation direction is correct.**

2. Press the bearing inner race (rear bearing) on with the **SST**.



05U0MX-106

3. Apply a light coat of grease to the end face of the companion flange.



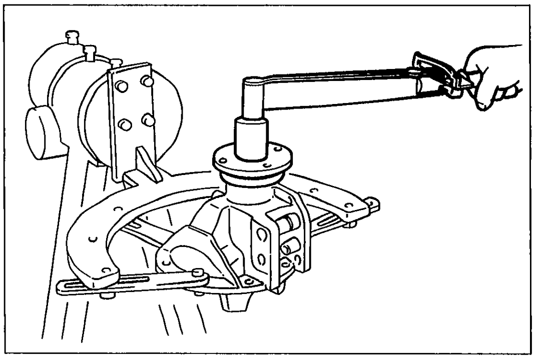
05U0MX-107

4. Install a new collapsible spacer.
5. Install the drive pinion assembly.

Note
- **Do not install the oil seal.**

6. Install the companion flange, and tighten the locknut with the **SST**.

Tightening torque: 118 N·m (12 m-kg, 87 ft-lb)

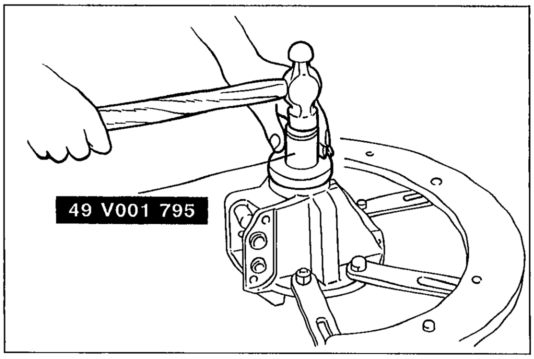


05U0MX-108

7. Turn the companion flange several turns by hand to seat the bearing.
8. Measure the drive pinion preload.
Adjust the preload by tightening the locknut and record the tightening torque.

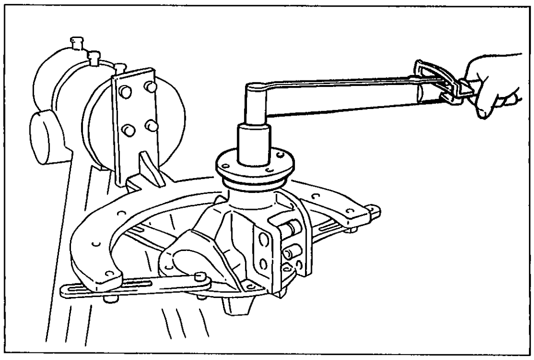
Preload:
0.3—0.7 N·m (3—7 cm-kg, 2.6—6.1 in-lb)

Tightening torque:
118—177 N·m (12—18 m-kg, 87—130 ft-lb)



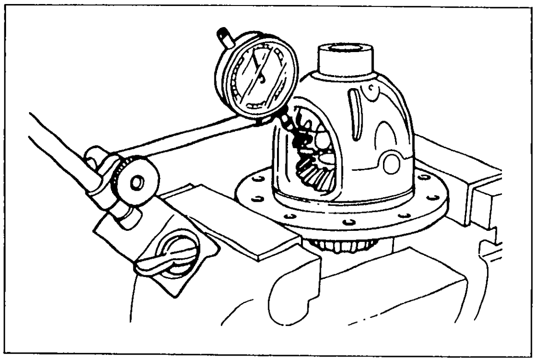
05U0MX-109

9. Remove the nut, washer, and companion flange.
10. Tap a new oil seal into the differential carrier with the **SST**.



05U0MX-110

11. Install the companion flange and washer, and tighten the locknut to the tightening torque recoreded in Step 8.



05U0MX-111

Adjustment of backlash

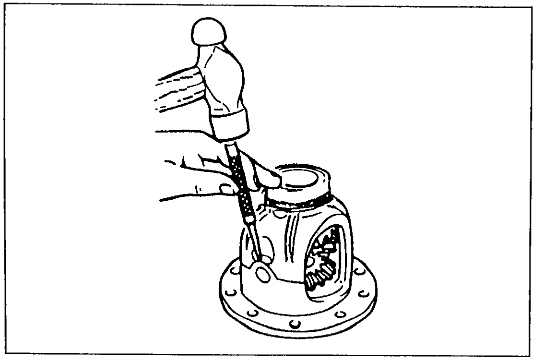
1. Check the backlash of the side gears and pinion gears. Adjust by inserting the proper thickness thrust washer at both sides. (Standard)
   If not within specification, replace the differential gear as an assembly. (Viscous L.S.D.)

   Standard backlash: 0—0.1mm (0—0.004 in)

Thrust washer thickness:

Identification mark	Thickness
0	1.95—2.00mm (0.0768—0.0787 in)
1	2.05—2.10mm (0.0807—0.0827 in)
2	2.15—2.20mm (0.0846—0.0866 in)

2. Install the knock pin to secure the pinion shaft. Stake the pin with a punch to prevent it from coming out of the case.

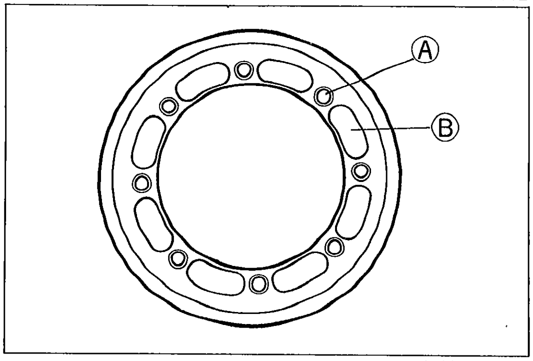


05U0MX-112

Adjustment of drive pinion and ring gear backlash

Note

- **Apply approx. 0.04 cc (0.0024 cu in) of thread-locking compound at each point.**

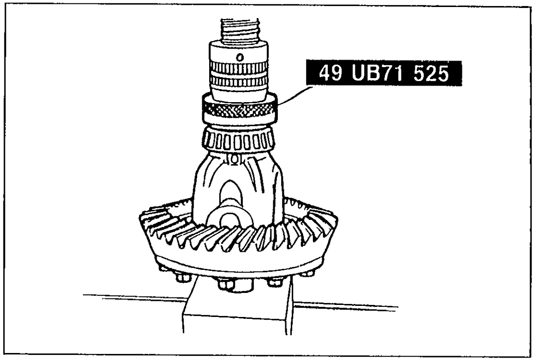


05U0MX-113

1. Apply thread-locking compound to the bolt threads Ⓐand point Ⓑ of the gear back face.
2. Install the ring gear onto the gear case.

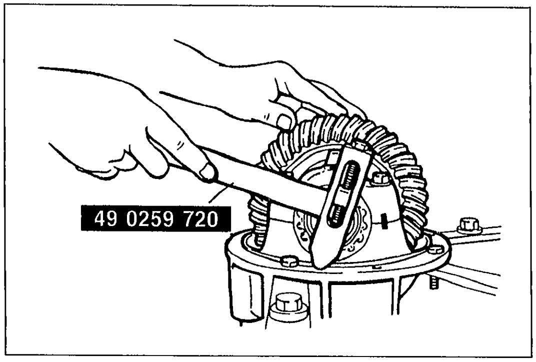
   Tightening torque:
   69—83 N·m (7.0—8.5 m-kg, 51—61 ft-lb)

3. Press the bearing inner races (side bearing) on with the **SST**.

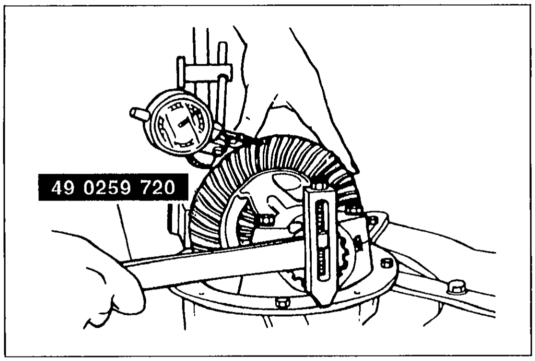


05U0MX-114

4. Install the differential gear assembly in the carrier.
5. Note the identification marks on the adjusting nuts, and install them on their respective sides.
6. Install the differential bearing caps, making sure that the identification mark on the cap corresponds with the one on the carrier with the **SST**.

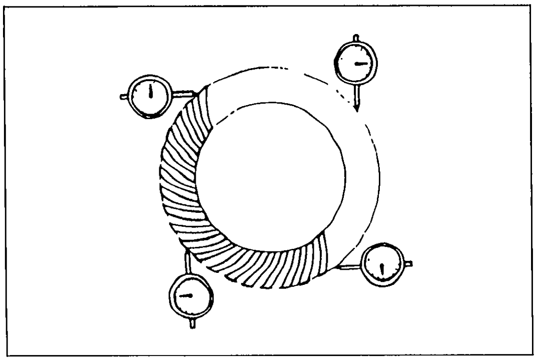


05U0MX-115



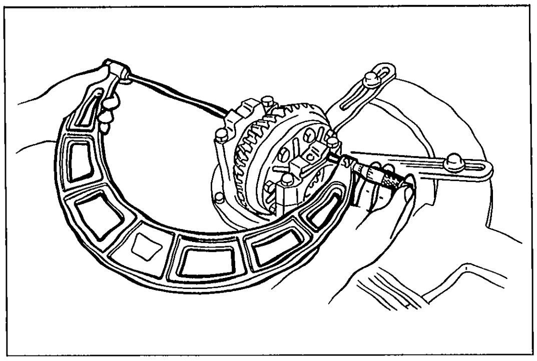
05U0MX-116

7. Mark the ring gear at four points at approx. **90°** intervals. Mount a dial indicator to the carrier so that the feeler comes in contact at a right angle with one of the ring gear teeth.
8. Turn both bearing adjusters equally with the **SST** until the backlash is **0.09—0.11mm (0.0035—0.0043 in)**.



05U0MX-117

9. Check the backlash at the three other marked points, and make sure the maximum backlash is less than **0.07mm (0.0028 in)**.

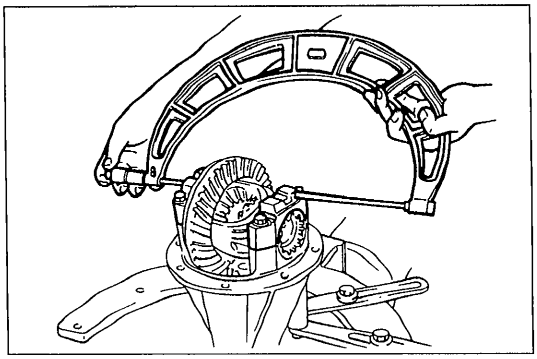


05U0MX-118

Note

- **When adjusting the differential bearing preload, be careful not to affect the backlash of the drive pinion and ring gear.**

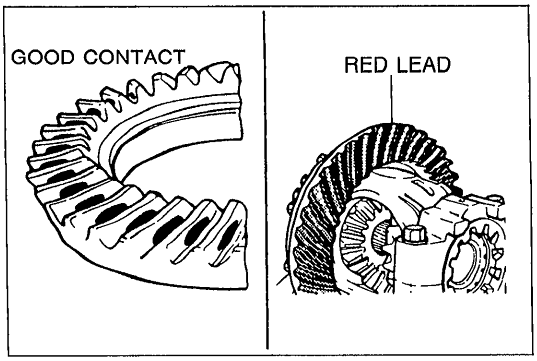
10. Tighten the adjusting nuts equally until the distance between the pilot sections on the bearing caps is **$150.20^{+0}_{-0.72}$mm ($5.913^{+0}_{-0.028}$ in)**.



99U09X-025

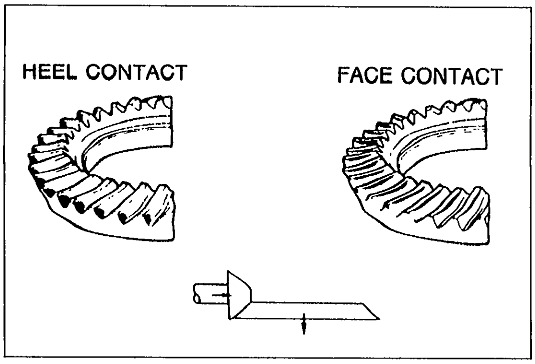
Inspection and adjustment of teeth contact

1. Coat both surfaces of 6—8 teeth of the ring gear with a thin coat of red lead.
2. While moving the ring gear back and forth by hand, rotate the drive pinion several times and check the tooth contact.
3. If the tooth contact is good, wipe off the red lead.
4. If it is not good, adjust the pinion height, and then adjust the backlash.



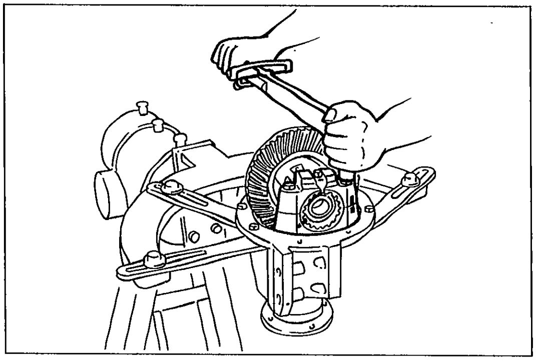
63G09X-385

(1) Toe and flank contact
Replace the spacer with a thinner one to move the drive pinion outward.



63G09X-386

(2) Heel and face contact
Replace the spacer with a thicker one to bring the drive pinion in.

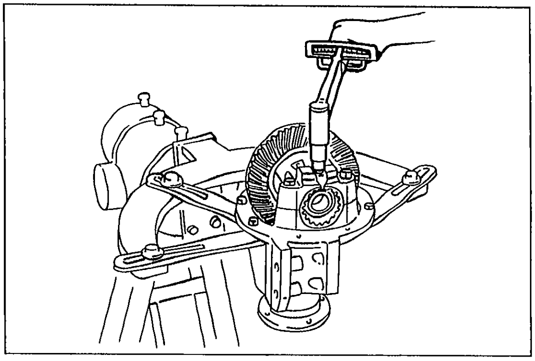


05U0MX-119

Bearing caps

1. Tighten the bearing cap bolts.

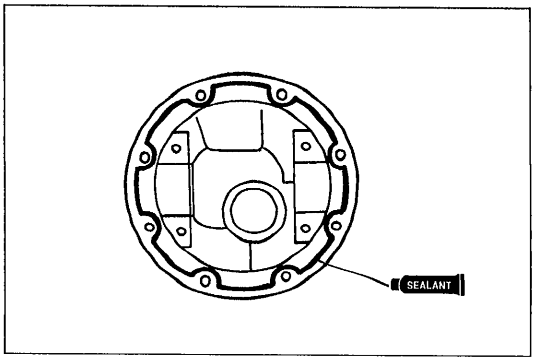
Tightening torque:
68—89 N·m (6.9—9.1 m-kg, 50—66 ft-lb)



99U09X-043

2. Install the lock plates on the bearing caps.

Tightening torque:
18—25 N·m (1.8—2.6 m-kg, 13—19 ft-lb)

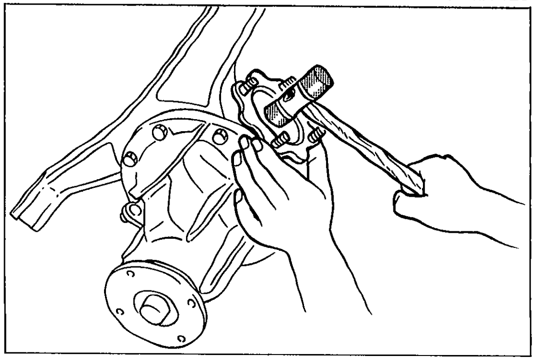


05U0MX-120

Differential case

1. Apply sealant to the housing face.
2. Tighten the bolts.

Tightening torque:
23—26 N·m (2.3—2.7 m-kg, 10—20 ft-lb)



05U0MX-121

Output shaft

Caution
- **With viscous L.S.D., the right output shaft is longer than the left shaft.**

1. Install a new clip.
2. Install the output shafts into the side gears by lightly tapping them with a plastic hammer.
3. Verify that the output shafts are hooked into the side gears by pulling them by hand.

STEERING SYSTEM

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STEERING WHEEL AND COLUMN .... N– 8
STEERING GEAR AND LINKAGE N–12
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DRIVE BELT N–22

05U0NX-001

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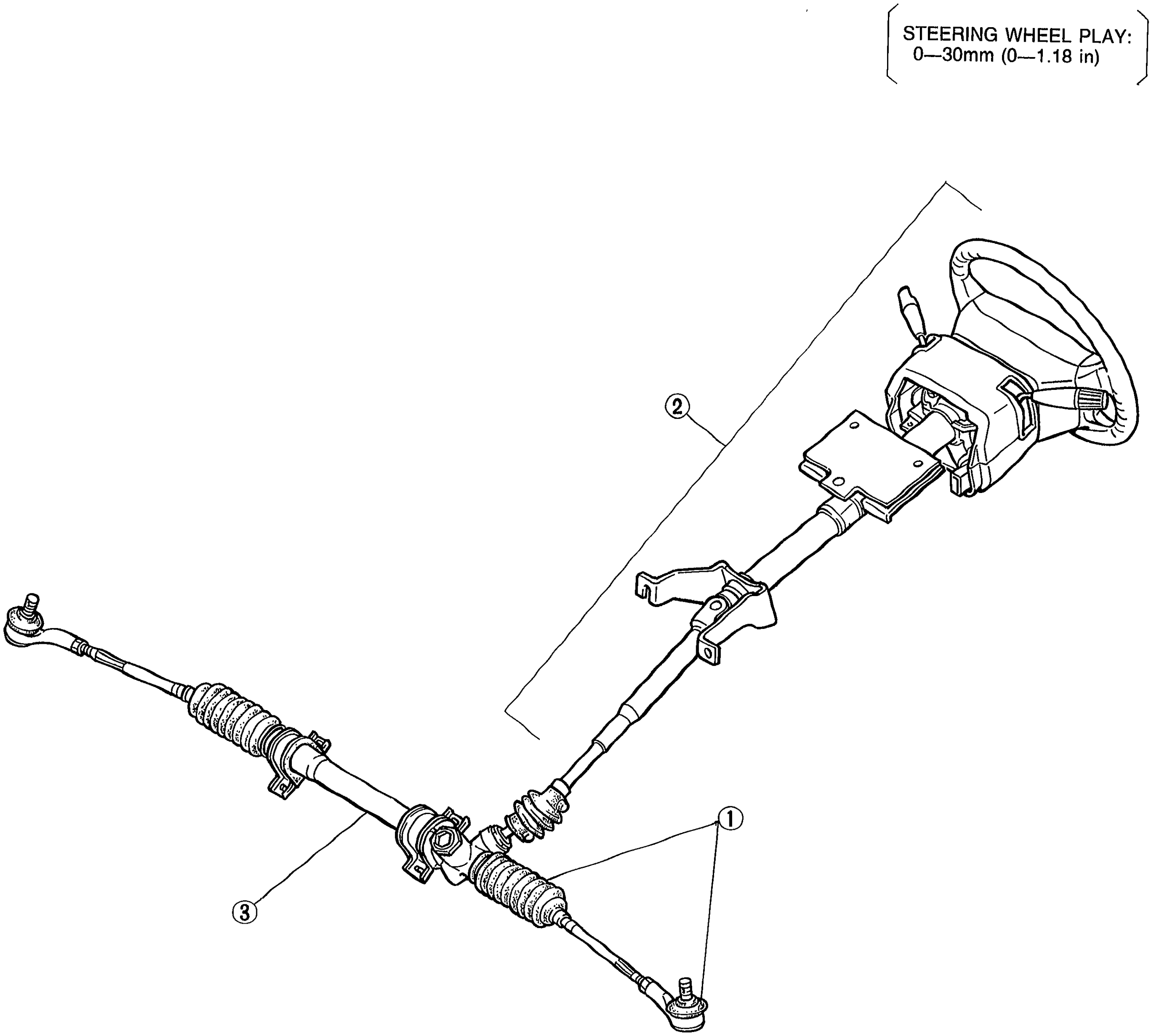
MANUAL STEERING


STEERING WHEEL PLAY:
0—30mm (0—1.18 in)
②
①
③
05U0NX-002

1. Boot
    - Replacement .... page N– 6
2. Steering wheel and column
    - On-vehicle inspection .... page N– 8
    - Removal / Installation .... page N– 9
    - Disassembly / Assembly / Inspection .... page N–10
3. Steering gear and linkage
    - Removal / Installation .... page N–12

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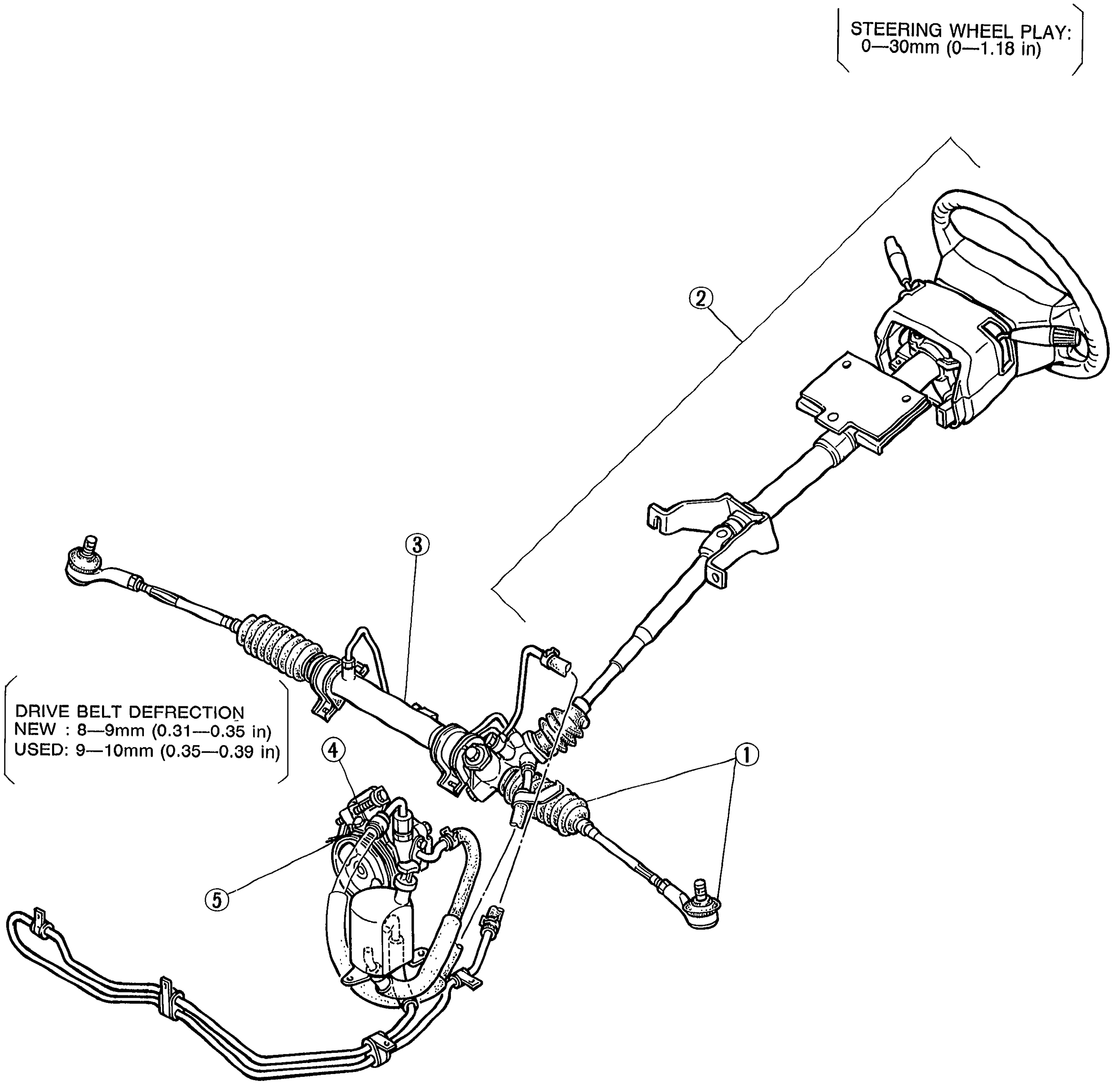
POWER STEERING



STEERING WHEEL PLAY:
0—30mm (0—1.18 in)

DRIVE BELT DEFRECTION
NEW : 8—9mm (0.31—0.35 in)
USED: 9—10mm (0.35—0.39 in)

05U0NX-003

1. Boot
   - Replacement .... page N- 6
2. Steering wheel and column
   - On-vehicle inspection........... page N- 8, 15
   - Removal / Installation.................. page N- 9
   - Assembly / Disassembly / Inspection................................ page N–10
3. Steering gear and linkage
   - Removal / Installation.................. page N–19
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4. Power steering oil pump
   - Removal / Installation.................. page N–21
   - Air bleeding................................ page N–15
   - Power steering fluid .... page N–16
5. Drive belt
   - Inspection.................................. page N–22
   - Adjustment .... page N–22
   - Replacement .... page N–22

OUTLINE

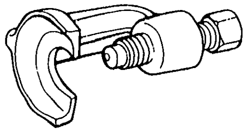
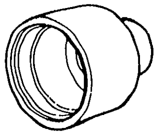
SPECIFICATIONS

Item	Type	Manual steering	Power steering
Steering wheel	Outer diameter mm (in)	370 (14.6)	
	Lock-to-lock turns	3.36	2.8
Steering shaft and joint	Shaft	Collapsible, non-tilt	
	Joint	2-cross joint	
Steering gear	Power assist	—	Engine speed sensing
	Gear	Rack-and-pinion	
	Gear ratio	∞ (infinite)	
	Rack stroke mm (in)	121.0 (4.76)	
	Power steering fluid	—	ATF DEXRON II or M-III
	Fluid capacity liters (US qt, Imp qt)	—	0.8 (0.85, 0.70)

05U0NX-004

MANUAL STEERING

PREPARATION
SST

49 0118 850C Puller, ball joint 	For removal of tie-rod end	49 1243 785 Installer, boot 	For installation of tie-rod end boot

05U0NX-005

TROUBLESHOOTING GUIDE

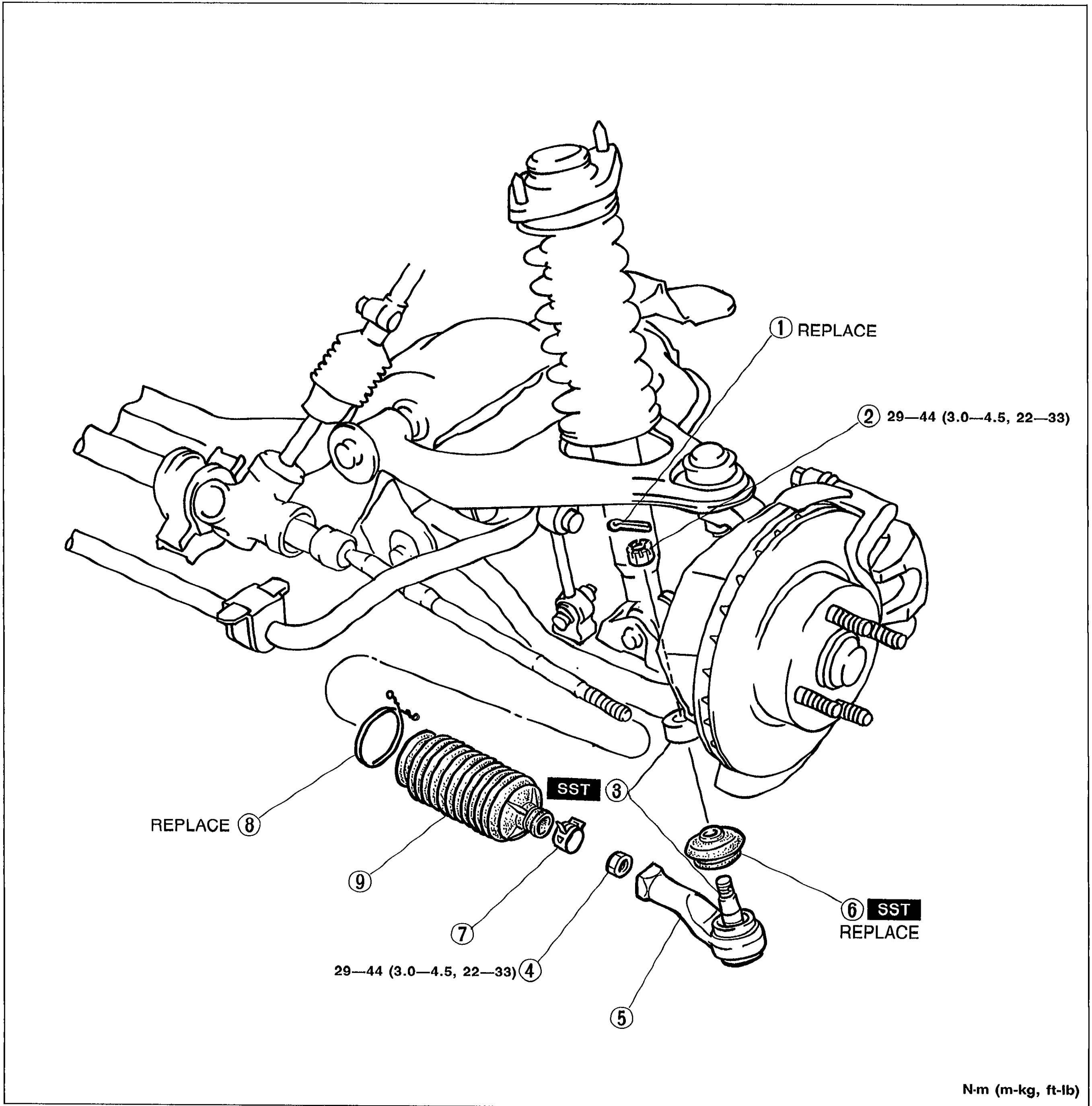
Problem	Possible Cause	Action	Page/Section
Steering heavy	Poor lubrication, foreign material, or abnormal wear of steering ball joint	Lubricate or replace	N–12
	Stuck or damaged lower arm ball joints	Replace	Section R
	Improper steering pinion preload	Replace gear	N–12
	Damaged steering gear	Replace	N–12
	Malfunction of steering shaft joint	Replace	N– 9
	Improperly adjusted wheel alignment	Adjust	Section R
	Malfunctioning steering gear	Replace	N–12
	Incorrect tire pressure	Adjust	Section Q
Steering wheel pulls to one side	Incorrect tire pressure	Adjust	Section Q
	Unevenly worn tires	Replace	Section Q
	Weak front spring	Replace	Section R
	Worn or damaged stabilizer and/or suspension arm bushings	Replace	Section R
	Dragging brake	Repair	Section P
	Loose lower arm	Tighten	Section R
	Improperly adjusted wheel alignment	Adjust	Section R
General instability while driving	Incorrect tire pressure	Adjust	Section Q
	Damaged or unbalanced wheel	Adjust or replace	Section Q
	Worn or damaged steering joints	Replace	N– 9
	Improper steering pinion preload	Replace gear	N–12
	Weak front coil spring	Replace	Section R
	Worn or damaged stabilizer and/or suspension arm bushings	Replace	Section R
	Malfunctioning shock absorber	Replace	Section R
	Improperly adjusted wheel alignment	Adjust	Section R
Shake (Steering wheel vibrates up/down)	Excessive tire and/or wheel runout	Replace	Section Q
	Loose lug nuts	Tighten	Section Q
	Unbalanced wheel(s)	Adjust or replace	Section Q
	Cracked or worn engine mount rubber	Replace	Section B
	Cracked or worn transmission mount rubber	Replace	Section J
Shimmy (Steering wheel vibrates left/right)	Cracked or worn steering gear mount rubber	Replace	N–12
	Loose steering gear mounting bolts	Tighten	N–12
	Stuck or damaged steering ball joint	Replace	N–14
	Excessive tire and/or wheel runout	Replace	Section Q
	Loose lug nuts	Tighten	Section Q
	Unbalanced wheel(s)	Adjust or replace	Section Q
	Incorrect tire pressure	Adjust	Section Q
	Unevenly worn tires	Replace	Section Q
	Malfunction of shock absorber	Replace	Section R
	Loose shock absorber mounting bolts	Tighten	Section R
	Stuck or damaged lower arm ball joint	Replace	Section R
	Cracked or worn suspension bushings	Replace	Section R
	Damaged or worn front wheel bearing	Replace	Section M
	Improperly adjusted front wheel alignment	Adjust	Section R
Excessive steering wheel play	Worn steering gear	Replace	N–12
	Worn or damaged steering joints	Replace	N– 9
	Worn or damaged suspension arm bushings	Replace	Section R
	Loose steering gear mounting bolts	Tighten	N–12
	Worn linkage or tie-rod ball joint	Replace	N–12
Poor steering wheel return	Incorrect tire pressure	Adjust	Section Q
	Stuck or damaged steering joints	Replace	N– 9
	Improperly adjusted front wheel alignment	Adjust	Section R
	Improper steering pinion preload	Replace gear	N–12
	Ball joint not operating smoothly	Replace	N–14
	Steering shaft contacting something	Repair	N– 9
Abnormal noise from steering system	Loose steering gear	Tighten	N–12
	Malfunctioning steering gear	Replace	N–12
	Obstruction near steering column	Repair or replace	N–12
	Loose steering linkage	Tighten or replace	N–12
	Worn steering joints	Replace	N– 9

05U0NX-006

BOOT

Replacement

1. Loosen the wheel lug nuts.
2. Jack up the front of the vehicle and support it with safety stands.
3. Remove the wheel.
4. Remove in the order shown in the figure, referring to **Removal Note**.
5. Install in the reverse order of removal, referring to **Installation Note**.
6. After installation, check the steering angle and toe-in and adjust if necessary. (Refer to Section R.)


① REPLACE
② 29—44 (3.0—4.5, 22—33)
SST ③
REPLACE ⑧
⑨
⑥ SST
REPLACE
⑦
29—44 (3.0—4.5, 22—33) ④
⑤
N·m (m-kg, ft-lb)

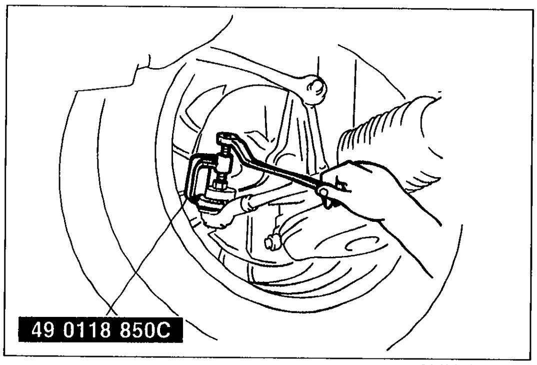
05U0NX-007

1. Cotter pin
2. Nut
3. Tie-rod end / Steering knuckle
   Removal Note .... page N- 7
4. Locknut
   Removal Note .... page N- 7
5. Tie-rod end
6. Tie-rod end boot
   Removal / Installation Note......... page N- 7
7. Boot clamp
8. Boot wire
9. Steering gear boot

Removal note

Tie-rod end

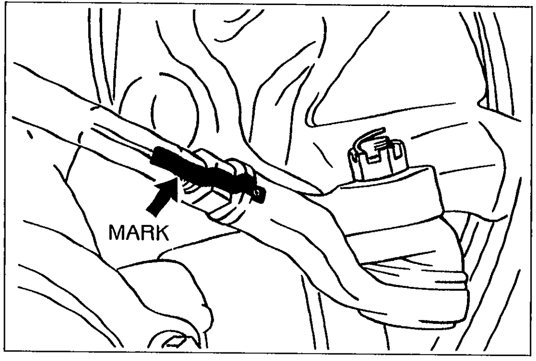
1) Loosen the tie-rod nut.
2) With the nut protecting the tie-rod end stud, separate the tie-rod end from the steering knuckle with the **SST**.



9MU0NX-032

Locknut

Before loosening the locknut from the tie-rod end, make a mark for reference when tightening.

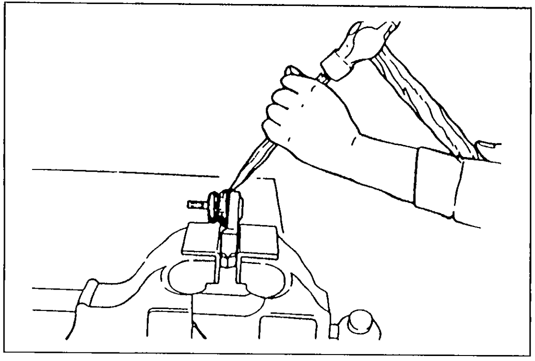


9MU0NX-033

Tie-rod end boot

Caution
- **Do not scar the part where the boot is attached to the tie-rod end.**

Secure the tie-rod end in a vise. Place a chisel against the boot and hold it at the angle shown. Remove the boot by tapping it with a hammer.

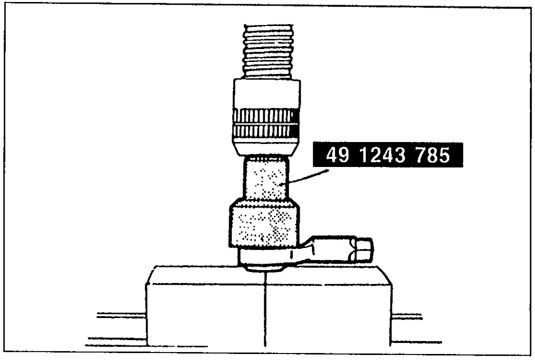


05U0NX-008

Installation note

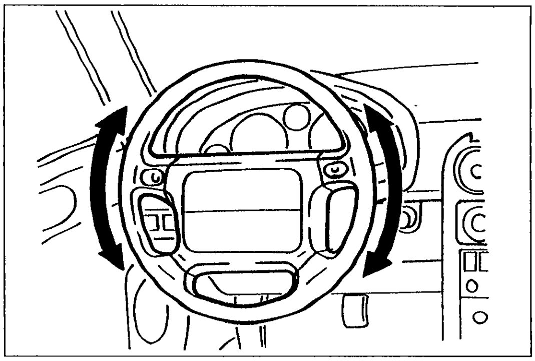
Tie-rod end boot

Put a small amount of grease (lithium base) into the new boot and set it onto the tie-rod end. Press the boot onto the tie-rod end with the **SST** and a press.



05U0NX-009

STEERING WHEEL AND COLUMN



05U0NX-010

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

On-vehicle Inspection

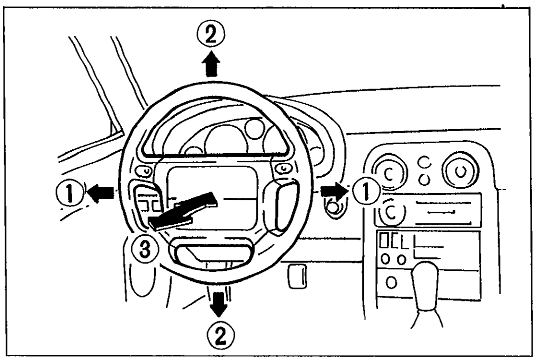
Steering wheel play

With the wheels in the straight-ahead position, gently turn the steering wheel to the left and right and verify that the play is within specification.

Play: 0—30mm (0—1.18 in)

Note

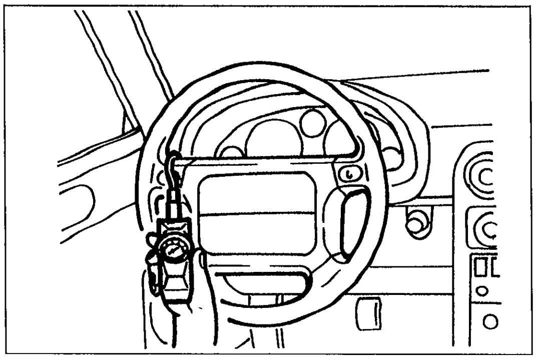
- **If the play exceeds specification, either the steering joints are worn or the backlash of the steering gear is excessive.**



05U0NX-011

Looseness or play of steering wheel

Move the steering wheel in directions ①, ②, and ③ to check for column bearing wear, steering shaft joint play, steering wheel looseness, and column looseness.



05U0NX-012

Steering wheel effort

1. Jack up the front of the vehicle.
2. Turn the steering wheel fully to the left and right at least 5 times.
3. Move the steering wheel to put the wheels in the straight-ahead position.
4. Attach a pull scale to the outermost point of the steering wheel spoke.
   Then, starting with the wheels in the straight-ahead position, measure the effort required to turn the steering wheel to the left and to the right.

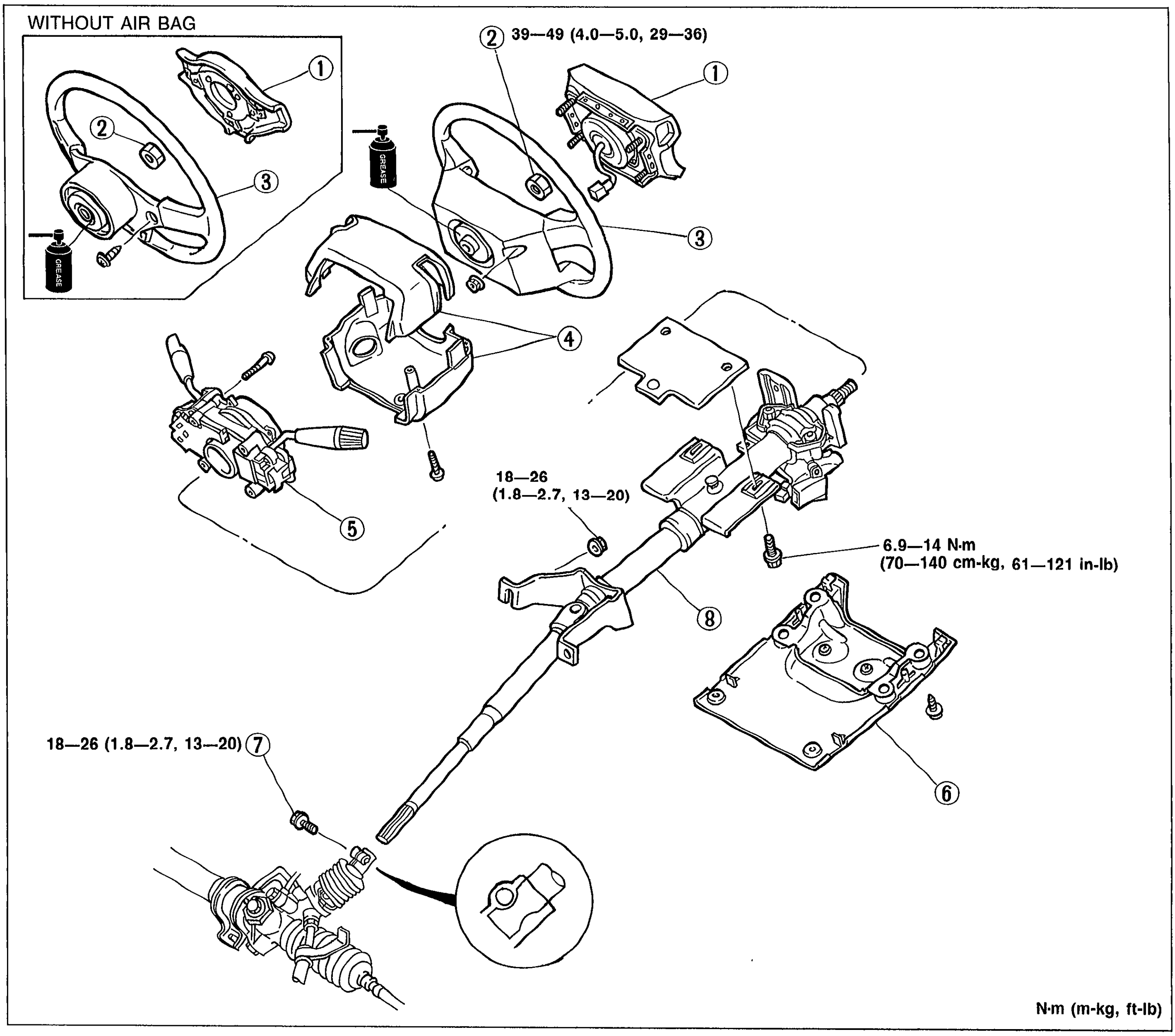
Steering wheel effort:
4.9—29.4 N (0.5—3.0 kg, 1.1—6.6 lb)
[during one turn of steering wheel]

5. If not within specification, check the following: rotation starting torque of pinion, rotation torque of each ball joint, and steering joints.

Removal / Installation

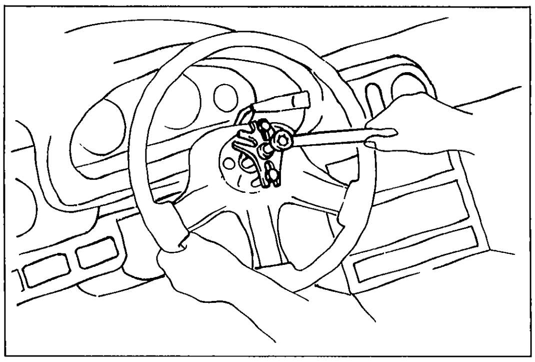
Caution
- **Do not remove the steering wheel of air bag equipped models (U.S. spec.) if not necessary.**
- **Adjust the clockspring connector after installing the combination switch. (U.S. spec.) (Refer to Section T.)**

1. Disconnect the negative battery cable.
2. Remove in the order shown in the figure, referring to **Removal Note**.
3. Install in the reverse order of removal.
4. Tighten all necessary nuts and bolts to the specified torque.
5. After installation, check if the horn sounds. If the horn does not sound, remove the air bag module and connect the module connectors. (Refer to Section T.)


WITHOUT AIR BAG
①
②
③
GREASE
GREASE
② 39—49 (4.0—5.0, 29—36)
①
③
④
⑤
18—26 (1.8—2.7, 13—20)
6.9—14 N·m (70—140 cm-kg, 61—121 in-lb)
⑧
18—26 (1.8—2.7, 13—20) ⑦
⑥
N·m (m-kg, ft-lb)

05U0NX-013

1. Air bag module
   Removal / Installation .... Section T
1. Horn pad (without air bag)
2. Locknut
3. Steering wheel
   Removal Note .... page N–10
4. Column cover
5. Combination switch
   Removal / Installation .... Section T
6. Lower panel
7. Intermediate shaft bolt
8. Steering shaft
   Disassembly / Inspection / Assembly .... page N–10



05U0NX-014

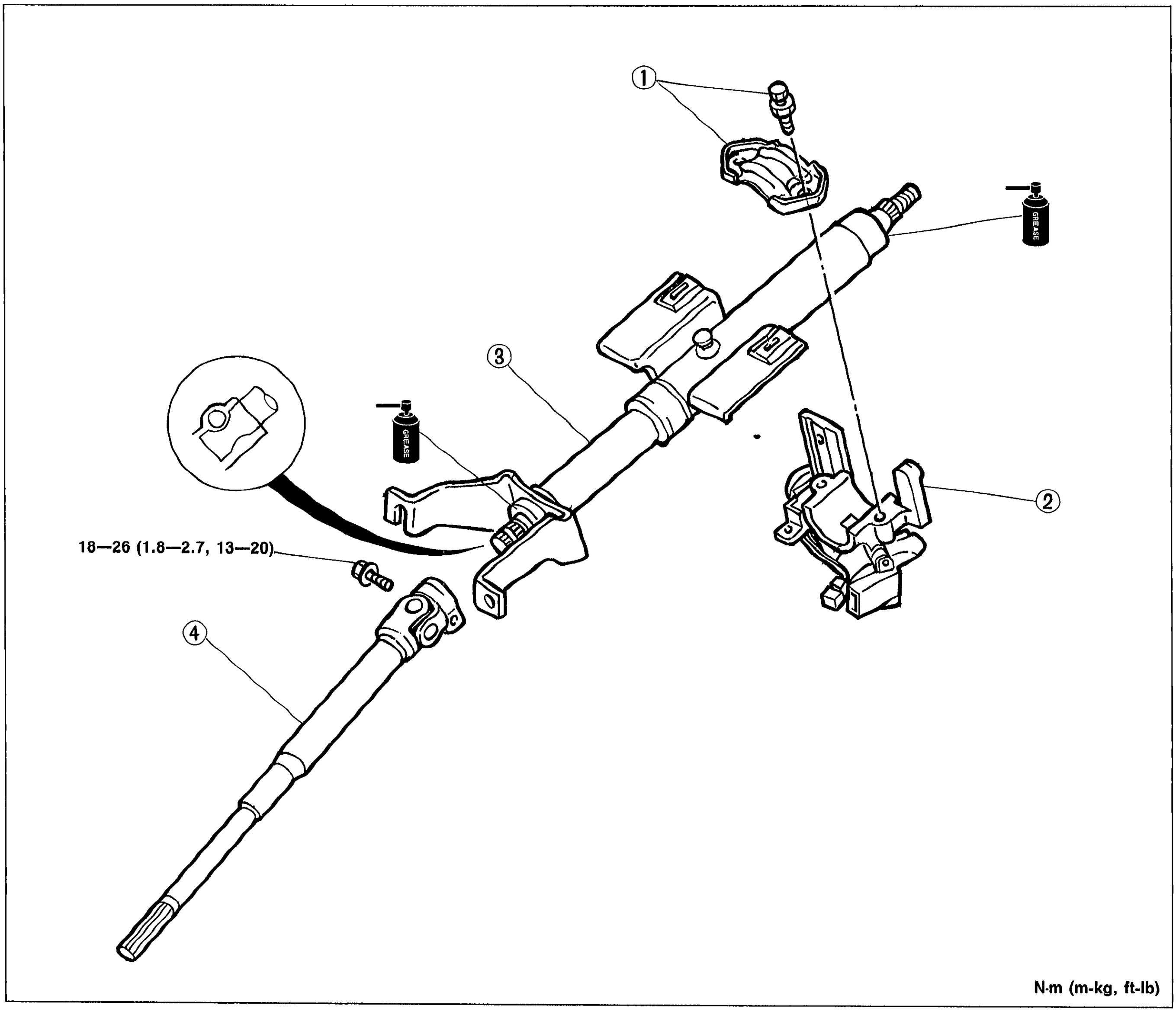
Removal note
Steering wheel

Caution
- **Do not remove the steering wheels of models with air bag systems if not necessary.**
- **Do not try to remove the steering wheel by hitting the shaft with a hammer. The column will collapse.**

Remove the steering wheel with a suitable puller.

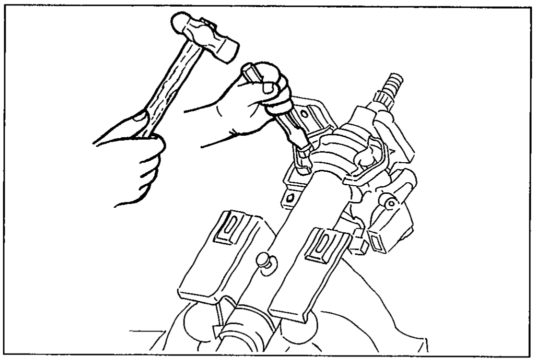
Disassembly / Assembly / Inspection

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Assemble in the reverse order of disassembly, referring to **Assembly Note**.



05U0NX-015

1. Steering lock mounting bolts and bracket
   Disassembly Note .... page N–11
   Assembly Note........................... page N–11
2. Steering lock assembly
3. Steering shaft
   Inspection.................................. page N–11
4. Intermediate shaft
   Inspect universal joint for looseness, abnormal noise, and sticking

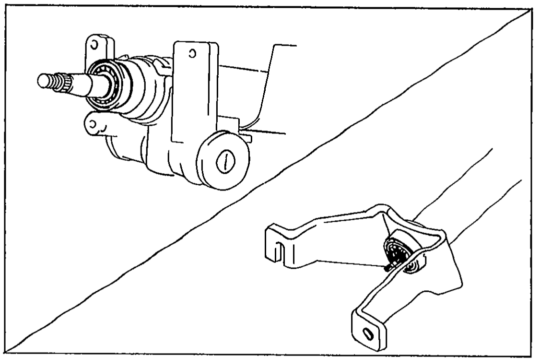


05U0NX-016

Disassembly note

Steering lock mounting bolts and bracket

Use a chisel to make a groove in the heads of the steering lock mounting bolts. Remove the bolts with a screwdriver. Remove the steering lock assembly.



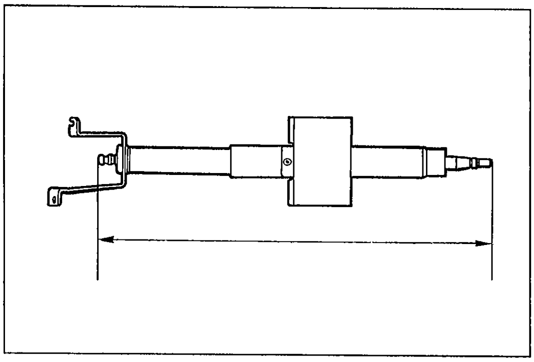
05U0NX-017

Inspection

Check for the following and replace the column assembly if necessary.

Steering shaft

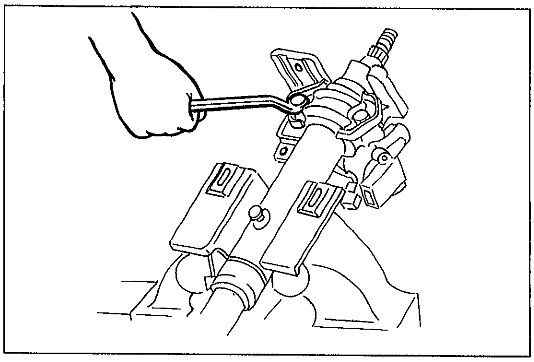
1. Column bearing damage.



05U0NX-018

2. Steering shaft length.

Length: 583.3 ± 1.5mm (22.96 ± 0.06 in)



05U0NX-019

Assembly note

Steering lock mounting bolts and bracket

Install the steering lock assembly on the jacket. Install the new steering lock mounting bolts. Tighten the bolts until the heads break off.

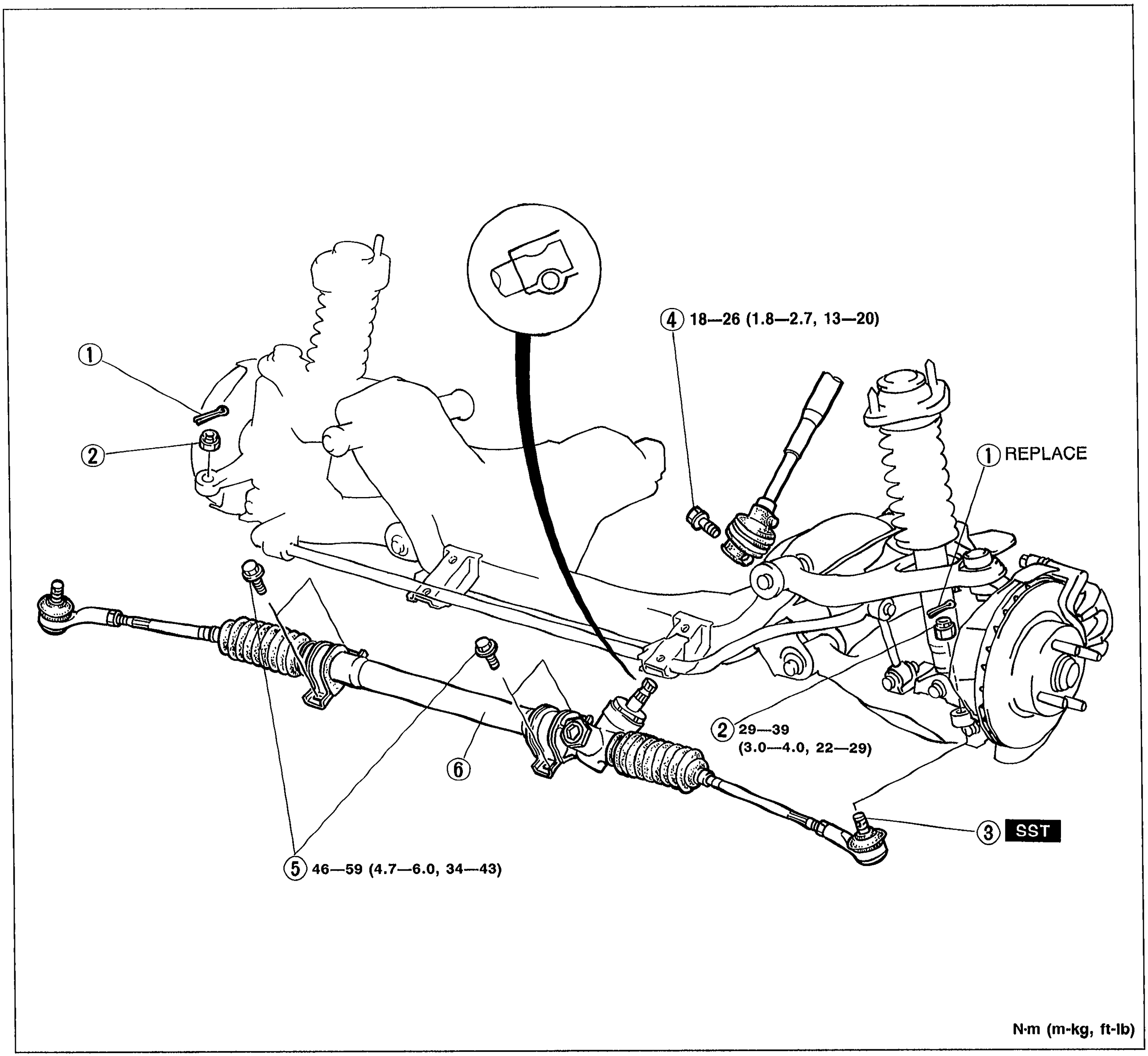
STEERING GEAR AND LINKAGE

Removal / Installation

Caution

- **Disconnect/connect the pinion shaft from/to the intermediate shaft with the wheels in the straight-ahead position, and do not turn the steering wheel while the steering gear is removed. If not done correctly, adjust the clockspring connector. (U.S. spec.) (Refer to Section T.)**

1. Loosen the wheel lug nuts.
2. Jack up the front of the vehicle and support it with safety stands.
3. Remove the wheel.
4. Remove the undercover.
5. Remove in the order shown in the figure, referring to **Removal Note**.
6. Install in the reverse order of removal.

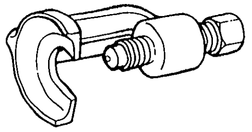
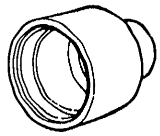
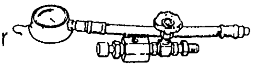
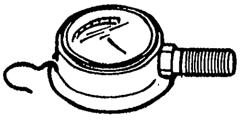
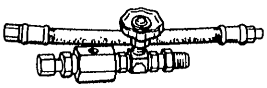
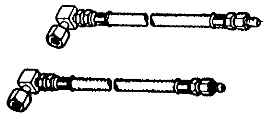
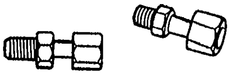
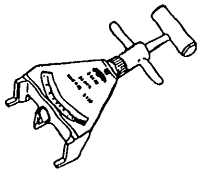


05U0NX-020

1. Cotter pin
2. Locknut
3. Tie-rod end
    Removal Note .... page N–7
4. Intermediate shaft bolt
5. Mounting bracket bolt
6. Steering gear and linkage

ENGINE SPEED SENSING POWER STEERING

PREPARATION
SST

49 0118 850C Puller, ball joint 	For removal of tie-rod end	49 1243 785 Installer, boot 	For installation of tie-rod end boot
49 1232 670A Gauge set, power steering 	For inspection of power steering fluid pressure	49 1232 672 Gauge (Part of 49 1232 670A) 	For inspection of power steering fluid pressure
49 1232 673 Valve body (Part of 49 1232 670A) 	For inspection of power steering fluid pressure	49 H002 671 Adapter, power steering gauge 	For inspection of power steering fluid pressure
49 B032 302 Adapter, power steering gauge 	For inspection of power steering fluid pressure	49 9200 020 Tension gauge, V-ribbed belt 	For inspection of drive belt tension

05U0NX-021

TROUBLESHOOTING GUIDE

Problem	Possible Cause	Action	Page/Section
Steering feels heavy	Poor lubrication, foreign material, or abnormal wear of steering ball joint	Lubricate or replace	N–19
	Stuck or damaged lower arm ball joints	Replace	Section R
	Improper steering pinion preload	Replace gear	N–19
	Damaged steering gear	Replace	N–19
	Malfunctioning steering shaft joint	Replace	N– 9
	Improperly adjusted wheel alignment	Adjust	Section R
	Malfunctioning steering gear	Replace	N–19
	Incorrect tire pressure	Adjust	Section Q
	Loose or damaged oil pump drive belt	Adjust or replace	N–22
	Low fluid level or air in fluid	Add fluid or bleed air	N–15,16
	Leakage of fluid	Repair or replace	—
	Insufficient oil pump pressure	Replace	N–21
Steering wheel pulls to one side	Incorrect tire pressure	Adjust	Section Q
	Unevenly worn tires	Replace	Section Q
	Weak front spring	Replace	Section R
	Worn or damaged stabilizer and/or upper or lower arm bushing	Replace	Section R
	Dragging brake	Repair	Section P
	Loose lower arm	Tighten or replace	Section R
	Improperly adjusted wheel alignment	Adjust	Section R

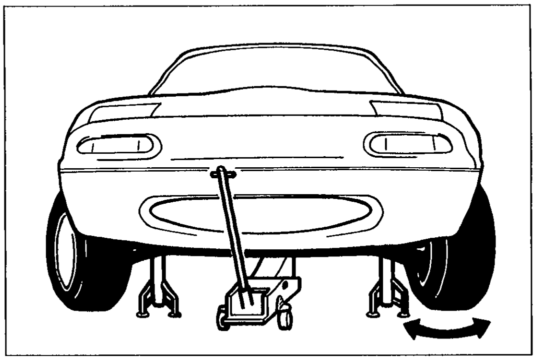
TROUBLESHOOTING GUIDE (Cont'd)

Problem	Possible Cause	Action	Page/Section
General instability while driving	Incorrect tire pressure Damaged or unbalanced wheel Worn or damaged steering joint(s) Improper steering pinion preload Weak front coil spring Worn or damaged stabilizer and/or upper or lower arm bushing Malfunctioning shock absorber Improperly adjusted wheel alignment	Adjust Adjust or replace Replace Replace gear Replace Replace Replace Adjust	Section Q Section Q N- 9 N-19 Section R Section R Section R Section R
Shake (Steering wheel vibrates up/down)	Excessive tire and/or wheel runout Loose lug nuts Unbalanced wheel(s) Cracked or worn engine mount rubber Cracked or worn transmission mount rubber	Replace Tighten Adjust or replace Replace Replace	Section Q Section Q Section Q Section B Section J
Shimmy (Steering wheel vibrates left/right)	Cracked or worn steering gear mount rubber Loose steering gear mounting bolts Stuck or damaged steering ball joint Excessive tire and/or wheel runout Loose lug nuts Unbalanced wheel(s) Incorrect tire pressure Unevenly worn tires Malfunctioning shock absorber Loose shock absorber mounting bolts Stuck or damaged lower arm ball joint Cracked or worn suspension bushings Damaged or worn front wheel bearing Improperly adjusted front wheel alignment	Replace Tighten Replace Replace Tighten Adjust or replace Adjust Replace Replace Tighten Replace Replace Replace Adjust	N-19 N-19 N-19 Section Q Section Q Section Q Section Q Section Q Section R Section R Section R Section R Section M Section R
Excessive steering wheel play	Worn steering gear Worn or damaged steering joints Worn or damaged lower arm bushing Loose steering gear mounting bolts Worn linkage or tie-rod ball joint	Replace Replace Replace Tighten Replace	N-19 N- 9 Section R N-19 N-19
Poor steering wheel return	Incorrect tire pressure Stuck or damaged steering joints Improperly adjusted front wheel alignment Improper steering pinion preload Ball joint not operating smoothly Steering shaft contacting something	Adjust Replace Adjust Replace gear Replace Repair	Section Q N- 9 Section R N-19 N-19 N- 9
Abnormal noise from steering system	Loose oil pump Loose steering gear Loose oil pump bracket Drive belt loose/tight Air in system Malfunctioning steering gear Malfunctioning oil pump Obstruction near steering column or pressure hose Loose steering linkage Worn steering joints	Tighten Tighten Tighten Adjust Bleed air Replace Replace Repair or replace Tighten or replace Replace	N-21 N-19 Section B N-22 N-15 N-19 N-21 N- 9 N-19 N- 9

05U0NX-022

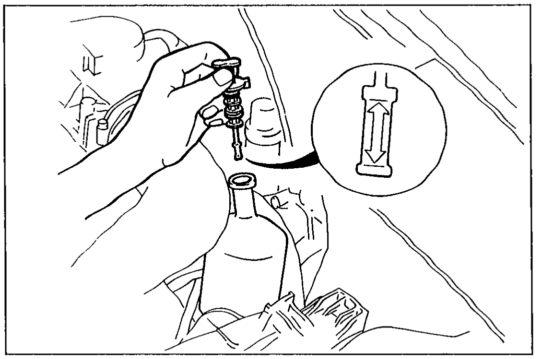
AIR BLEEDING

1. Check the fluid level. (Refer to page N–16.)
2. Turn the steering wheel fully to the left and right several times with the engine not running.
3. Recheck the fluid level. If it has dropped, add fluid.
4. Repeat Steps 2 and 3 until the fluid level stabilizes.
5. Start the engine and let it idle.
6. Turn the steering wheel fully to the left and right several times.

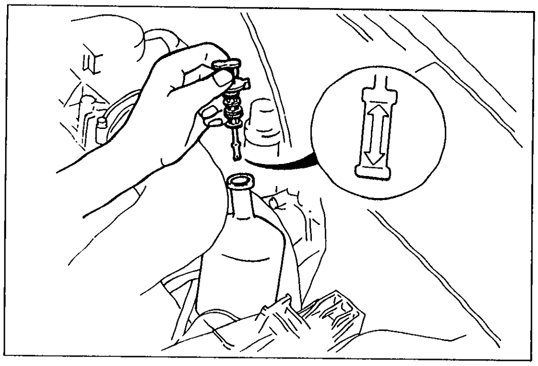


05U0NX-023

7. Verify that the fluid is not foamy and that the fluid level has not dropped.
8. Add fluid if necessary and repeat Steps 6 and 7.



97U0NX-040



05U0NX-024

POWER STEERING FLUID

Inspection

Fluid level

Check the power steering fluid level. Add fluid to the specified level, if necessary.

Caution

- **Use only the specified power steering fluid.**

Fluid specification:
ATF DEXRON-II or M-III

Fluid leakage

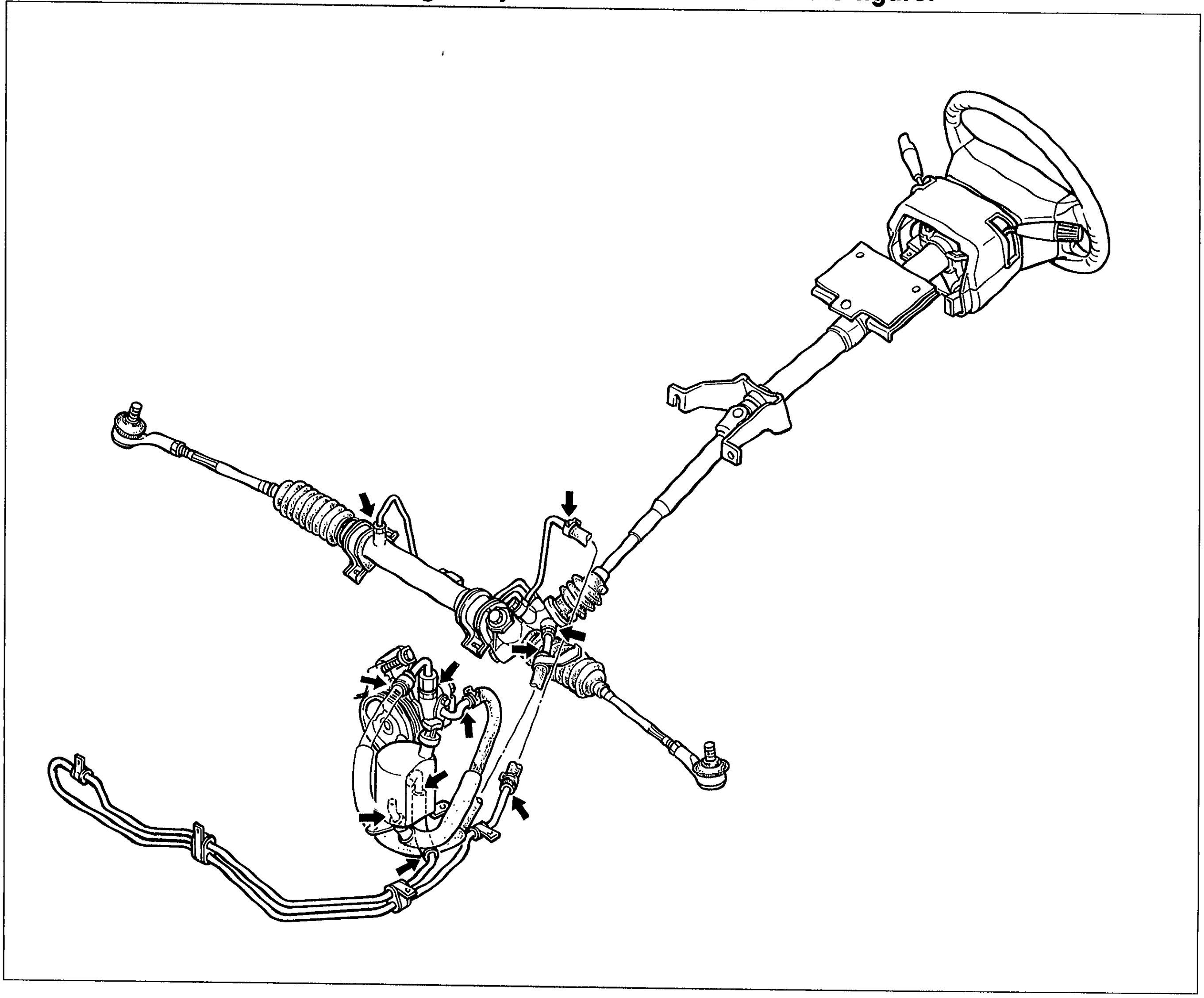
Caution

- **To prevent damage to the steering system, do not keep the steering wheel in the fully turned position for more than 15 seconds.**

Start the engine and let it idle. Turn the steering wheel fully to the left and right to apply fluid pressure. Check for fluid leakage.

Note

- **The points where fluid leakage may occur are indicated in the figure.**

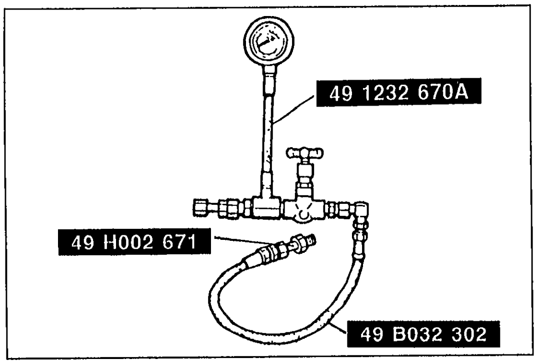


05U0NX-025

Fluid pressure

1. Assemble the **SST** as shown in the figure.

Tightening torque:
39—49 N·m (4.0—5.0 m-kg, 29—36 ft-lb)

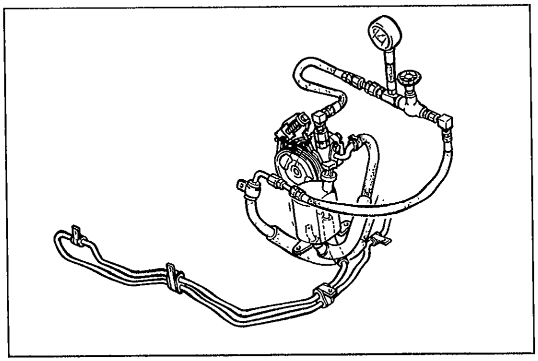

49 1232 670A
49 H002 671
49 B032 302

05U0NX-026

Note

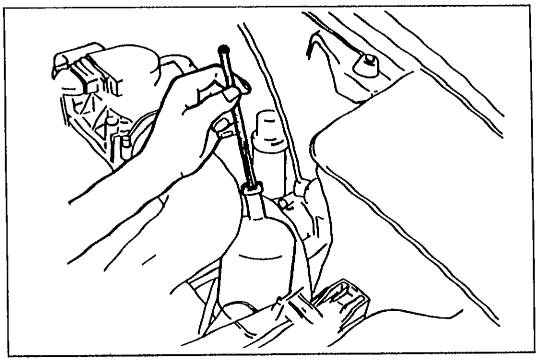
- **Before disconnecting the hose, make marks at the connections for proper reinstallation.**

2. Disconnect the high-pressure hose from the oil pump. Attach the **SST**.
3. Bleed the air from the system. (Refer to page N–15.)



05U0NX-027

4. Open the gauge valve fully. Start the engine and turn the steering wheel fully left and right to raise the fluid temperature to **50—60°C (122—140°F)**.



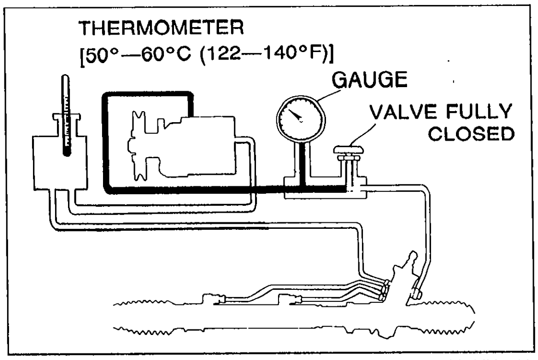
9MU0NX-010

Caution

- **If the valve is left closed for more than 15 seconds, the fluid temperature will increase excessively and adversely affect the oil pump.**

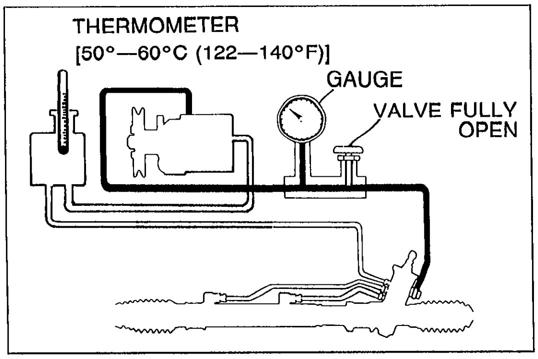
5. Close the gauge valve completely. Increase the engine speed to **1,000—1,500 rpm** and measure the fluid pressure generated by the oil pump. If the pressure is not within specification, replace the oil pump assembly.

Oil pump fluid pressure: 7,603—8,339 kPa (77.5—85.0 kg/cm^2, 1,102—1,209 psi)

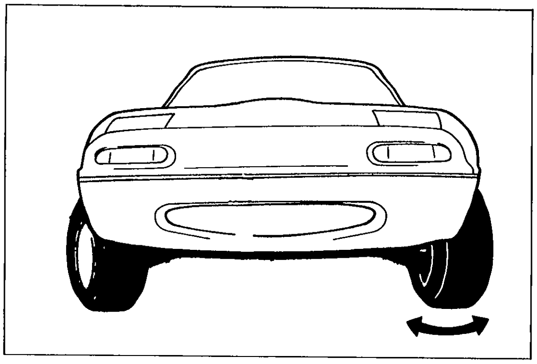

THERMOMETER
[50°—60°C (122—140°F)]
GAUGE
VALVE FULLY CLOSED

05U0NX-028

6. Open the gauge valve fully and increase the engine speed to **1,000—1,500 rpm**.


THERMOMETER
[50°—60°C (122—140°F)]
GAUGE
VALVE FULLY OPEN

05U0NX-029



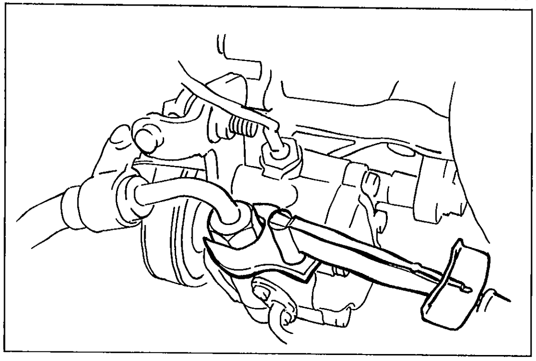
05U0NX-030

Caution

- **If the steering wheel is kept in the fully turned position for more than 15 seconds, the fluid temperature will rise excessively and adversely affect the oil pump.**

7. Turn the steering wheel fully to the left and right and measure the fluid pressure generated by the gear housing. If the pressure is not within specification, replace the gear housing assembly.

Gear housing fluid pressure: 7,603—8,339 kPa (77.5—85.0 kg/cm^2, 1,102—1,209 psi)



05U0NX-031

8. Remove the gauge set. Install and tighten the high-pressure hose to the specified torque.

Tightening torque:
31—47 N·m (3.2—4.8 m-kg, 23—35 ft-lb)

9. Bleed the air from the system. (Refer to page N–15.)

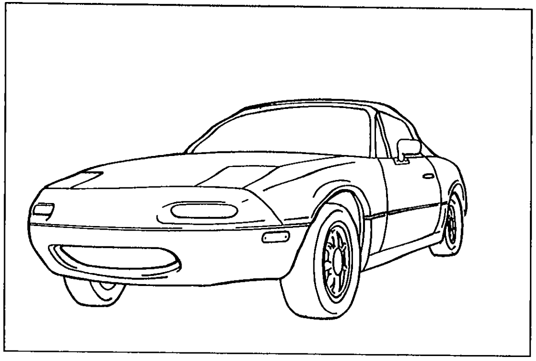
STEERING WHEEL AND COLUMN

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)**

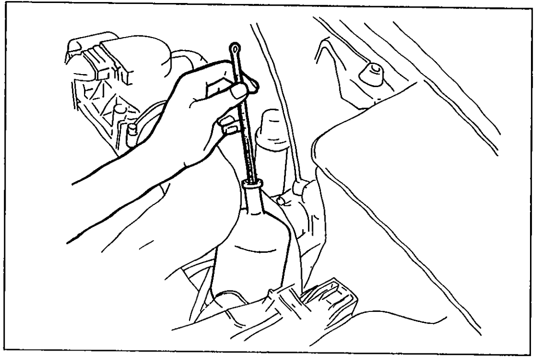
On-vehicle Inspection

Steering wheel effort

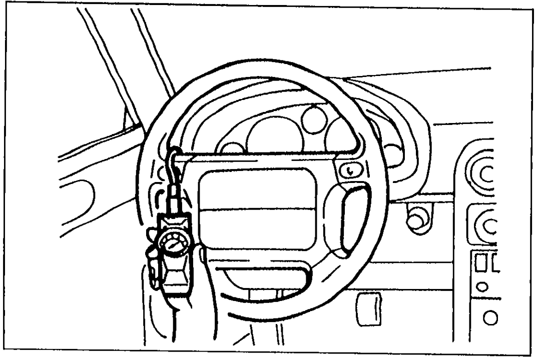


05U0NX-032

1. With the vehicle on a hard, level surface, put the wheels in the straight-ahead position.
2. Start the engine and warm the power steering fluid to **50—60°C (122—140°F)**.



97U0NX-016



05U0NX-033

3. With the engine running at idle, attach a pull scale to the outermost point of the steering wheel spoke.
Then, starting with the wheels in the straight-ahead position, measure the effort required to turn the steering wheel to the left and to the right.

Steering wheel effort:
23.5—35.3 N (2.4—3.6 kg, 5.3—8.0 lb)
[during one turn of the steering wheel]

4. If not within specification, check the following: fluid level, air in system, fluid leakage at hose or connections, function of oil pump and gear box, and tire pressure.

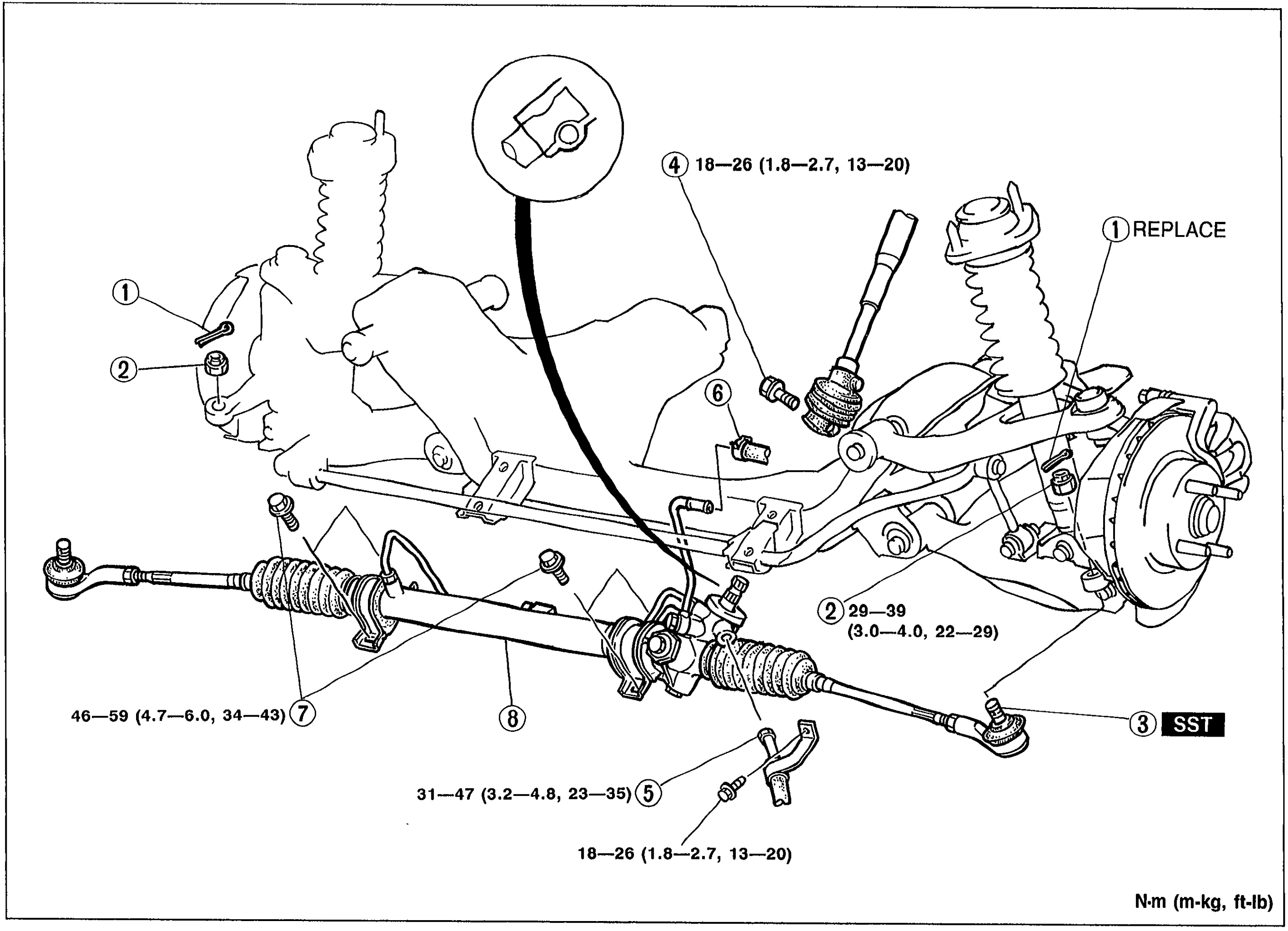
STEERING GEAR AND LINKAGE
Removal / Installation

Caution
- **Disconnect/connect the pinion shaft from/to the intermediate shaft with the wheels in the straight-ahead position, and do not turn the steering wheel while the steering gear is removed. If not done correctly, adjust the clockspring connector. (U.S. spec.) (Refer to Section T.)**

1. Loosen the wheel lug nuts.
2. Jack up the front of the vehicle and support it with safety stands.
3. Remove the wheels.
4. Remove in the order shown in the figure, referring to **Removal Note**.

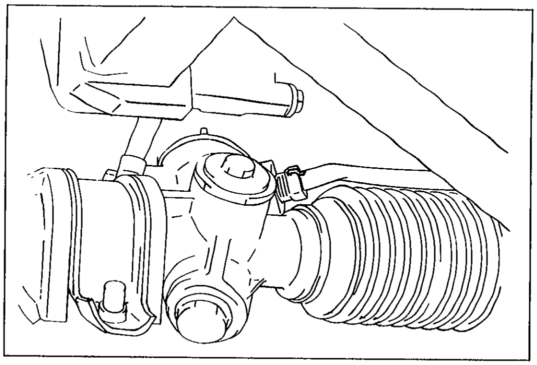
Note
- **Use a container or rags to collect the power steering fluid when disconnecting the pressure pipe and return hose.**

5. Install in the reverse order of removal, referring to **Installation Note**.
6. Tighten all necessary bolts and nuts to the specified torque.
7. After installation:
   (1) Check for fluid leakage. (Refer to page N–16.)
   (2) Bleed air from the system. (Refer to page N–15.)



05U0NX-034

1. Cotter pin
2. Nut
3. Tie-rod end
   Removal Note .... page N– 7
4. Bolt
5. Pressure pipe
   Removal Note .... page N–20
6. Return hose
7. Mounting bracket bolt
8. Steering gear and linkage



05U0NX-035

Removal note
Pressure pipe

Before removing the pressure pipe, make marks for reference during installation.

POWER STEERING OIL PUMP

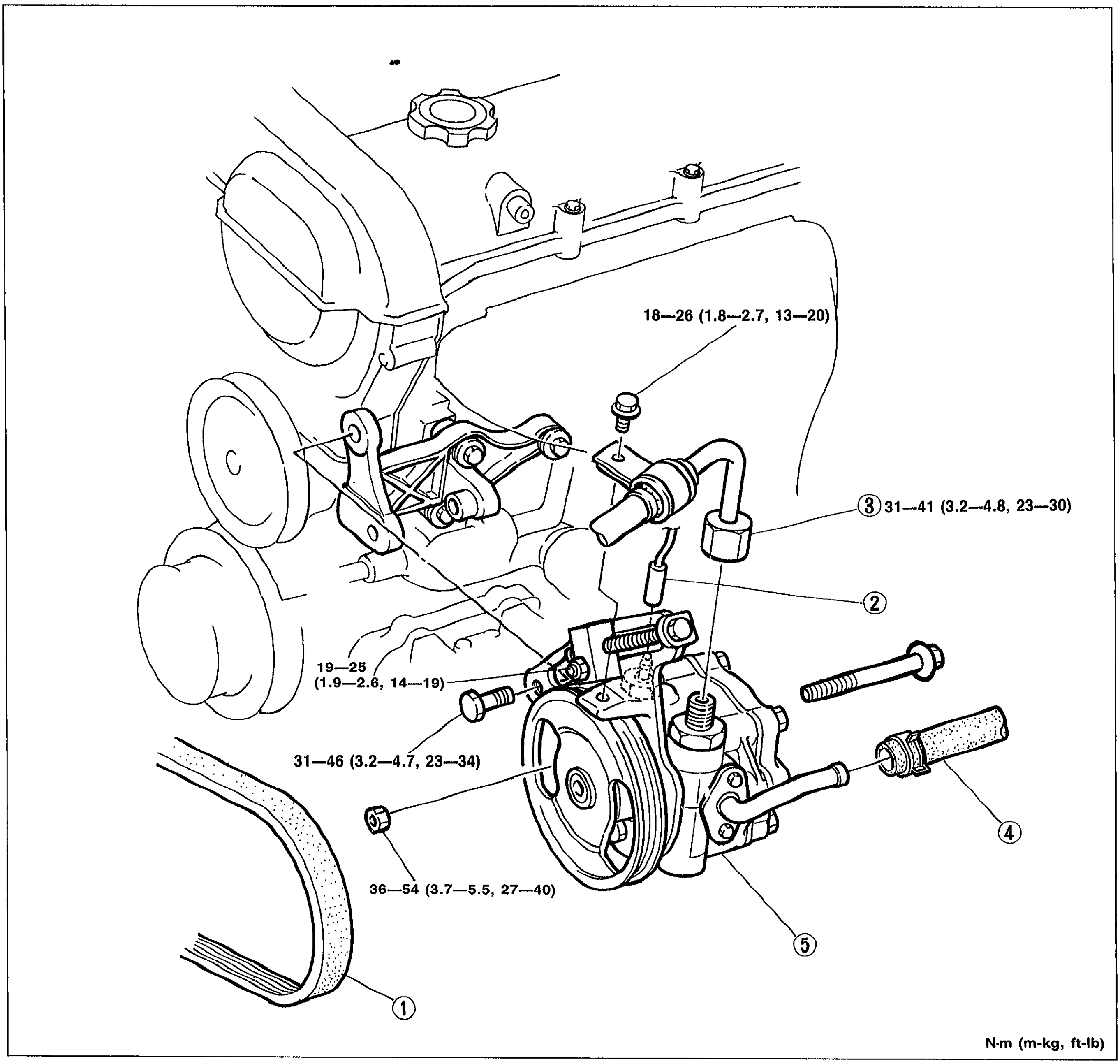
Removal / Installation

1. Remove in the order shown in the figure, referring to **Removal Note**.

Note

- **Use a container or rags to collect the power steering fluid when disconnecting the pressure pipe and return hose.**

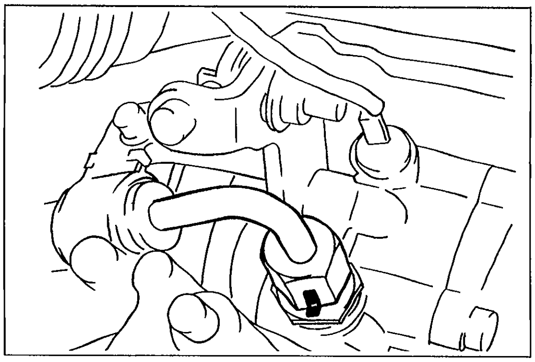
2. Install in the reverse order of removal, referring to **Installation Note**.
3. After installation:
   (1) Check connections for fluid leakage. (Refer to page N–16.)
   (2) Bleed air from system. (Refer to page N–15.)



18—26 (1.8—2.7, 13—20)
③ 31—41 (3.2—4.8, 23—30)
②
19—25
(1.9—2.6, 14—19)
31—46 (3.2—4.7, 23—34)
④
36—54 (3.7—5.5, 27—40)
⑤
①
N·m (m-kg, ft-lb)

05U0NX-036

1. Drive belt
   Inspection .... page N–22
   Adjustment .... page N–22
   Replacement .... page N–22
2. Power steering pressure switch connector
3. Pressure pipe
   Removal Note .... page N–22
4. Return hose
5. Oil pump assembly



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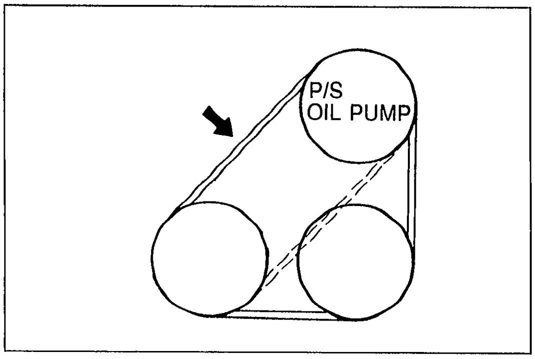
Removal note

Pressure pipe

Mark the pressure pipe for reference during installation before loosening.

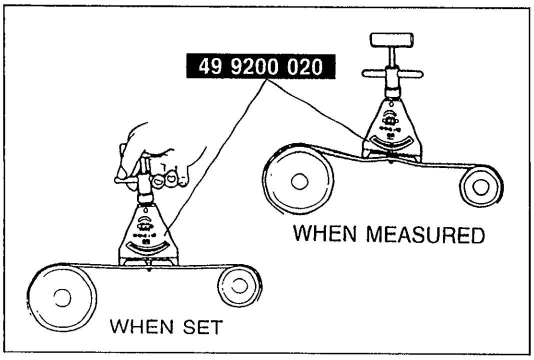


05U0NX-038

DRIVE BELT

Inspection

1. Check the drive belt for wear, cracks, and fraying. Replace if necessary.
2. Check the drive belt deflection by applying mode rate pressure **(98 N, 10 kg, 22 lb)** midway between the pulleys. Adjust if necessary.



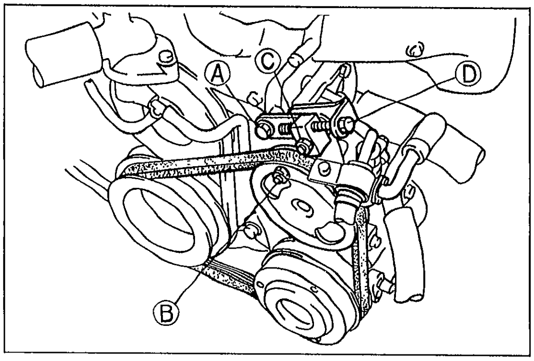
05U0NX-039

Deflection (Depressed at 98 N [10 kg, 22 lb])
New : 8—9mm (0.31—0.35 in)
Used: 9—10mm (0.35—0.39 in)

Tension
New : 491—589 N (50—60 kg, 110—132 lb)
Used: 422—491 N (43—50 kg, 95—110 lb)

Note

- **Belt tension can be measured between any pulleys.**

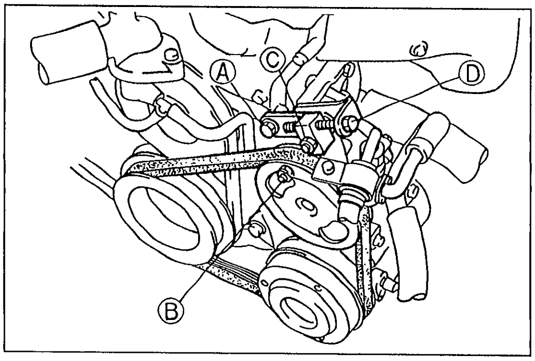


05U0NX-040

Adjustment

1 Loosen P/S oil pump bolt Ⓐ and nuts Ⓑ and Ⓒ. Adjust the belt deflection by turning the adjusting bolt Ⓓ.

Tightening torque:
Ⓐ: 31—46 N·m (3.2—4.7 m-kg, 23—34 ft-lb)
Ⓑ: 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)
Ⓒ: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)



05U0NX-041

Replacement

1. Lossen bolt Ⓐ, nuts Ⓑ and Ⓒ, and adjusting bolt Ⓓ.
2. Remove and replace the drive belt.
3. Adjust the deflection (tension). (Refer to above.)

BRAKING SYSTEM

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  SPECIFICATIONS .... P– 3
BRAKE SYSTEM .... P– 4
  PREPARATION .... P– 4
  TROUBLESHOOTING GUIDE .... P– 5
  AIR BLEEDING .... P– 6
  BRAKE HYDRAULIC LINE .... P– 6
  BRAKE FLUID .... P– 7
  BRAKE PEDAL .... P– 7
  MASTER CYLINDER P–10
  POWER BRAKE UNIT P–13
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  CALIPER P–21
  REAR BRAKE (DISC) P–22
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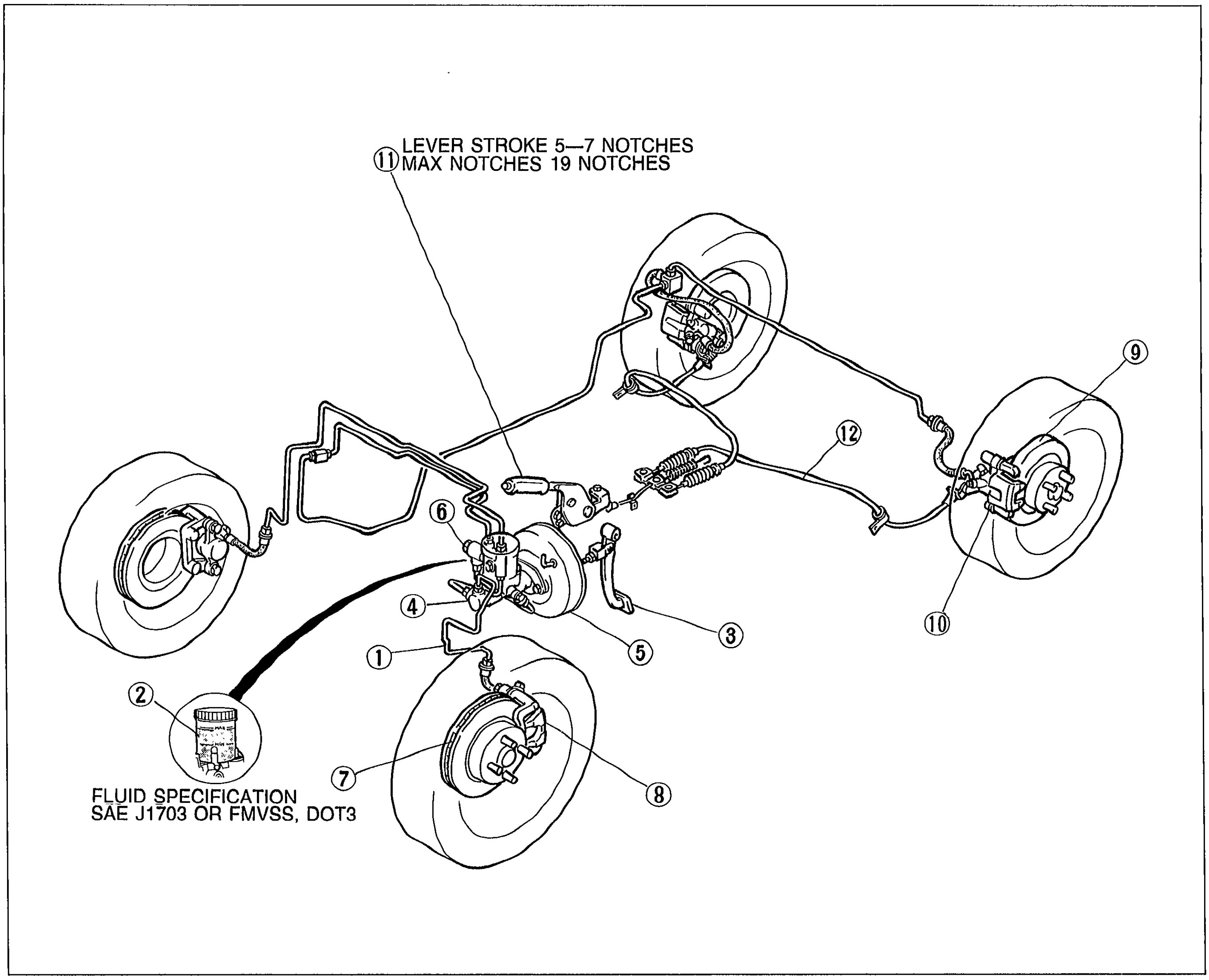
05U0PX-001

INDEX



05U0PX-002

1. Brake hydraulic line
   - Inspection .... page P– 6
   - Removal / Installation .... page P– 6
2. Brake fluid
   - Inspection .... page P– 7
   - Replacement.............................. page P– 7
3. Brake pedal
   - On-vehicle inspection .... page P– 9
   - Removal / Inspection / Installation page P– 9
4. Master cylinder
   - Removal / Installation .... page P–10
   - Disassembly / Inspection / Assembly .... page P–12
5. Power brake unit
   - Quick Inspection, On-vehicle...... page P–13
   - Removal / Installation .... page P–15
6. Proportioning bypass valve (PBV)
   - Inspection .... page P–16
   - Replacement.............................. page P–16
7. Front disc brake
   - Quick Inspection, On-vehicle...... page P–18
   - Replacement (pad) .... page P–18
   - Removal / Installation .... page P–19
   - Inspection .... page P–20
8. Caliper
   - Disassembly / Inspection / Assembly .... page P–21
9. Rear disc brake
   - Quick Inspection, On-vehicle...... page P–22
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10. Caliper
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12. Parking brake cable
    - Removal / Inspection / Installation page P–29

OUTLINE

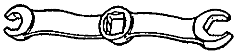
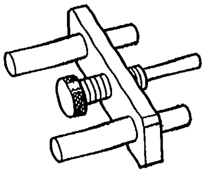
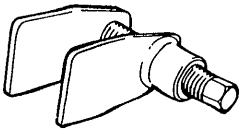
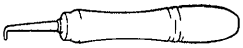
SPECIFICATIONS

Item		Specifications
Brake pedal	Type	Suspended
	Pedal level ratio	4.1 : 1
	Maximum stroke mm (in)	133 (5.24)
Master cylinder	Type	Tandem (with level sensor)
	Bore mm (in)	22.22 (0.875)
Front disc brake	Type	Disc (ventilated)
	Cylinder bore mm (in)	51.1 (2.01)
	Pad dimensions (area x thickness) mm² x mm (in² x in)	3,700 x 9.5 (5.73 x 0.37)
	Disc plate dimension (effective diameter x thickness) mm (in)	235 x 18 (9.25 x 0.71)
Rear disc brake	Type	Disc (solid)
	Cylinder bore mm (in)	31.75 (1.25)
	Pad dimensions (area x thickness) mm² x mm (in² x in)	2,600 x 8.0 (4.03 x 0.31)
	Disc plate dimensions (effective diameter x thickness) mm (in)	231 x 9 (9.09 x 0.35)
Power brake unit	Type	Vacuum multiplier
	Size mm (in)	214 (8)
Braking force control device	Type	Proportioning bypass valve (PBV)
Brake fluid		SAE J1703 or FMVSS 116, DOT-3
Parking brake	Type	Mechanical, two rear brakes
	Operation system	Hand lever

05U0PX-504

BRAKE SYSTEM

PREPARATION
SST

49 0259 770B Wrench, flare nut 	For removal and installation brake pipes	49 F043 001 Adjust gauge 	For adjustment of push rod clearance
49 0221 600C Expand tool, disc brake 	For installation of disc pads	49 0208 701A Boot air out tool 	For removal of piston seal

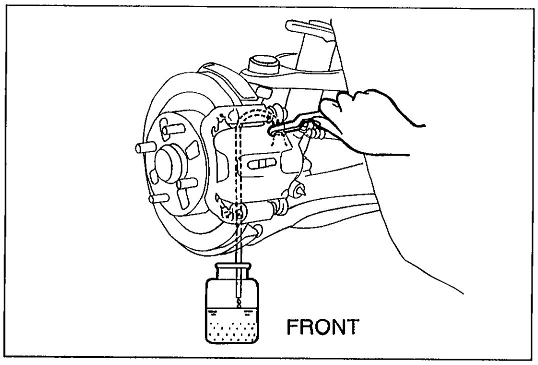
05U0PX-003

TROUBLESHOOTING GUIDE

Problem	Possible cause	Action	Page
Poor braking	Leakage of brake fluid	Repair	—
	Air in lines	Air bleed	P- 6
	Worn pad	Replace	P–18,22
	Brake fluid, grease, oil, or water on pad	Clean or replace	P–18,22
	Hardening of pad surface or poor contact	Grind or replace	P–18,22
	Malfunction of disc brake piston	Replace	P–19,23
	Malfunction of master cylinder	Repair or replace	P–10
	Malfunction of power brake unit	Repair or replace	P–15
	Malfunction of check valve (vacuum hose)	Repair or replace	P–15
	Damaged vacuum hose	Replace	P–15
	Deterioration of flexible hose	Replace	P- 6
	Malfunction of proportioning bypass valve (PBV)	Replace	P–16
Brakes pull to one side	Worn pad	Replace	P–18,22
	Brake fluid, grease, oil, or water on pad	Clean or replace	P–18,22
	Hardening of pad surface or poor contact	Grind or replace	P–18,22
	Abnormal wear, distortion, or eccentricity of disc	Repair or replace	Section M
	Malfunction of automatic adjuster in rear brake	Repair	—
	Looseness or deformation of dust cover mounting bolt	Tighten or replace	Section M
	Malfunction of disc brake piston	Repair or replace	P–19,23
	Worn or improperly adjusted wheel bearing preload	Replace or adjust	Section M
	Improper adjustment of wheel alignment	Adjust	Section R
	Unequal tire air pressure	Adjust	Section Q
Brakes do not release	No brake pedal play	Adjust	P- 8
	Improper adjustment of push rod clearance	Adjust	P–11
	Clogged master cylinder return port	Clean	—
	Pad not returning properly	Repair	—
	Improper return of malfunction of brake caliper piston	Replace	P–21,25
	Excessive runout of disc plate	Replace	Section M
	Improper adjustment of wheel bearing preload	Adjust or replace	Section M
Pedal goes too far (Too much pedal stroke)	Air in system because of insufficient brake fluid	Add fluid and bleed air	P- 6
	Improper adjustment of pedal play	Adjust	P- 8
	Worn pad	Replace	P–18,22
	Air in lines	Bleed air	P- 6
Abnormal noise or vibration during braking	Worn pad	Replace	P–18,22
	Deterioration of pads	Grind or replace	P–18,22
	Brakes do not release	Repair	—
	Foreign material or scratches on disc plate contact surface	Clean	—
	Looseness of caliper mounting bolt(s)	Tighten	P–19,23
	Damage or deviation of disc contact surface	Replace	Section M
	Poor contact of pads	Repair or replace	P–18,22
	Insufficient grease on sliding parts	Apply grease	—

05U0PX-004

AIR BLEEDING



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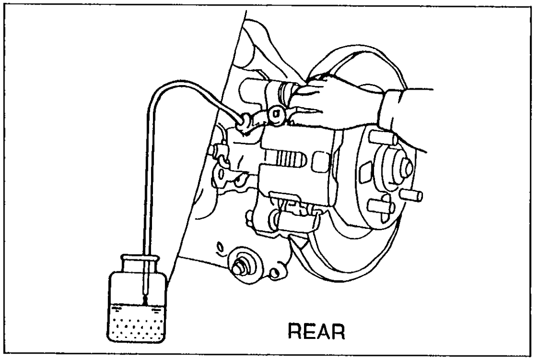


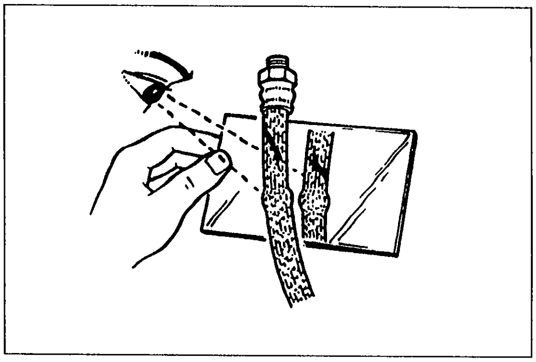
05U0PX-006

Caution
- **The fluid in the reservoir must be maintained at the 3/4 level or higher during air bleeding.**
- **Do not spill brake fluid onto painted surfaces.**

1. Jack up the vehicle and support it with safety stands.
2. Remove the bleeder cap and attach a vinyl tube to the bleeder screw.
3. Place the other end of the vinyl tube in a clear container and keep the tube end immersed in brake fluid during air bleeding.
4. Pump the brake pedal several times.
5. While the brake pedal is depressed, loosen the bleeder screw to let fluid and air escape.
6. Repeat Steps 4 and 5 until there are no air bubbles in the fluid.
7. Check for correct brake operation.
8. Check that there is no fluid leakage. Be sure to clean away any spilled fluid with rags.
9. After bleeding the air, add brake fluid to the specified level in the reservoir.

BRAKE HYDRAULIC LINE

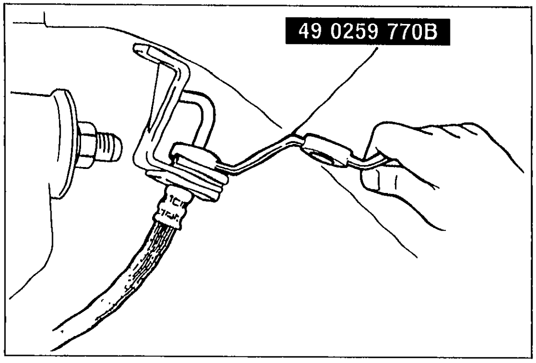
Inspection



05U0PX-007

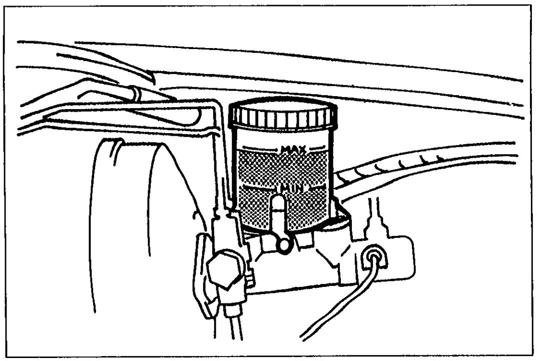
Check the following and replace parts as necessary.
1. Cracks, damage, and corrosion of the brake hose
2. Damage to the brake hose threads
3. Scars, cracks, and swelling of the flexible hose
4. All lines for fluid leakage

Removal / Installation



05U0PX-008

1. When disconnecting the flexible hose and brake line, remove the clip after loosening the flare nut.
2. When connecting the flexible hose, do not tighten it too tight or twist it.
3. Check that the hose does not contact other parts when the vehicle bounces or when the steering wheel is turned all the way to the left or right.
4. Bleed the air from the brake system.



05U0PX-009

BRAKE FLUID

Inspection

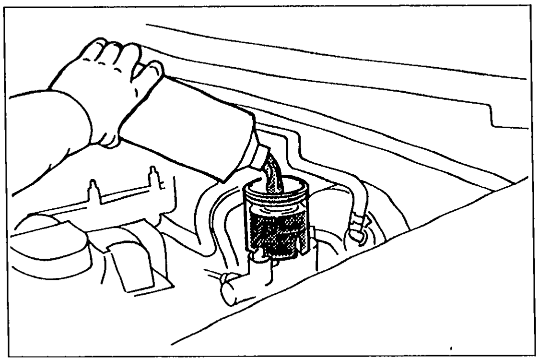
Check the fluid level in the reservoir. It should be between MAX and MIN.

If the fluid level is extremely low, check the brake system for leaks.

Fluid specification:
SAE J1703 or FMVSS 116, DOT-3

Caution

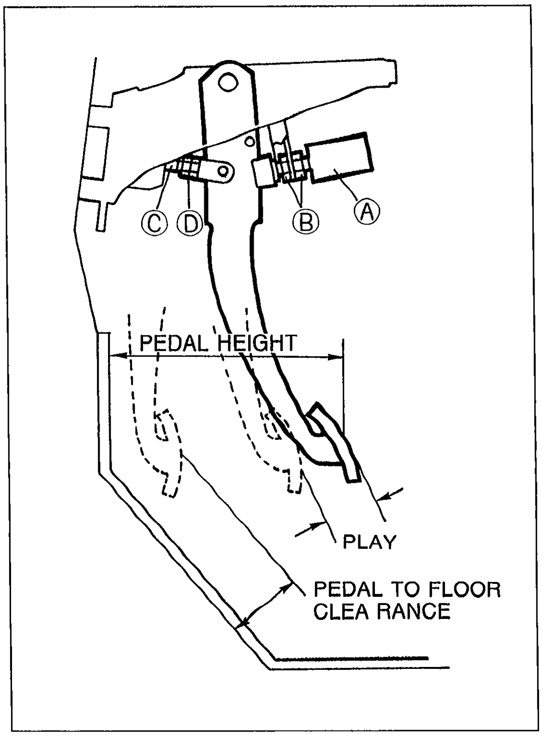
- **The fluid in the reservoir must be maintained at 3/4 level or higher during bleeding.**
- **Do not allow the brake fluid to get on painted surfaces.**



05U0PX-010

Replacement

1. Remove the brake fluid from the reservoir with a suction pump.
2. Fill the reservoir with clean brake fluid.
3. Attach a vinyl tube to the bleeder screw and place the other end of the tube in a clear container.
4. Pump out the old brake fluid by loosening the bleeder screws one by one and pumping the brake pedal until only clean fluid is expelled.
5. Fill the reservoir to the specified level.



05U0PX-011

BRAKE PEDAL

On-vehicle Inspection

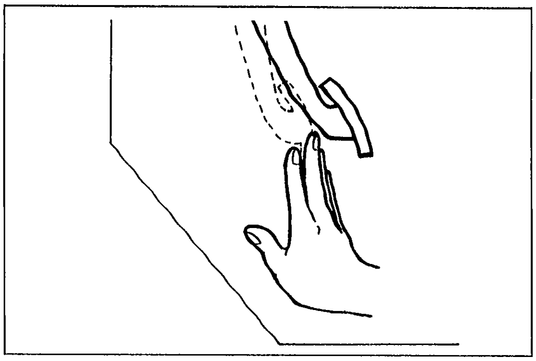
Pedal height

Check that the distance from the center of the upper surface of the pedal pad to the carpet is as specified.

Pedal height: 171—181mm (6.93—7.13 in)
(With carpet)

Adjustment

1. Disconnect the stoplight switch connector.
2. Loosen locknut Ⓑ and turn switch Ⓐ until it does not contact the pedal.
3. Loosen locknut Ⓓ and turn rod Ⓒ to adjust the height.
4. Adjust the pedal free play and tighten operating rod locknut Ⓓ.
5. Turn the stoplight switch until it contacts the pedal; then turn an additional 1/2 turn. Tighten the locknut.

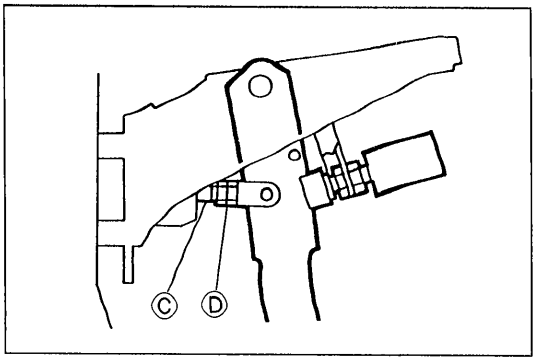


05U0PX-012

Pedal play

1. Depress the pedal a few times to eliminate the vacuum in the system.
2. Lightly depress the pedal by hand until resistance is felt, and check the free play.

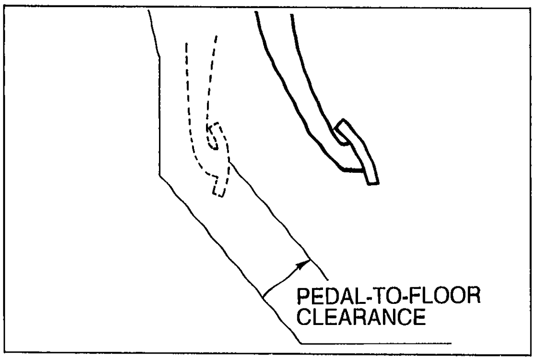
Free play: 4—7mm (0.16—0.28 in)



05U0PX-013

Adjustment

1. Loosen locknuts Ⓓ and turn rod Ⓒ to adjust the free play.
2. Tighten locknuts Ⓓ.



05U0PX-014

Pedal-to-floor clearance

Check that the distance from the floor panel to the center of the upper surface of the pedal pad is as specified when the pedal is depressed with a force of **589 N (60 kg, 132 lb)**.

Pedal-to-floor clearance: 95mm (3.74 in)
(Without carpet)

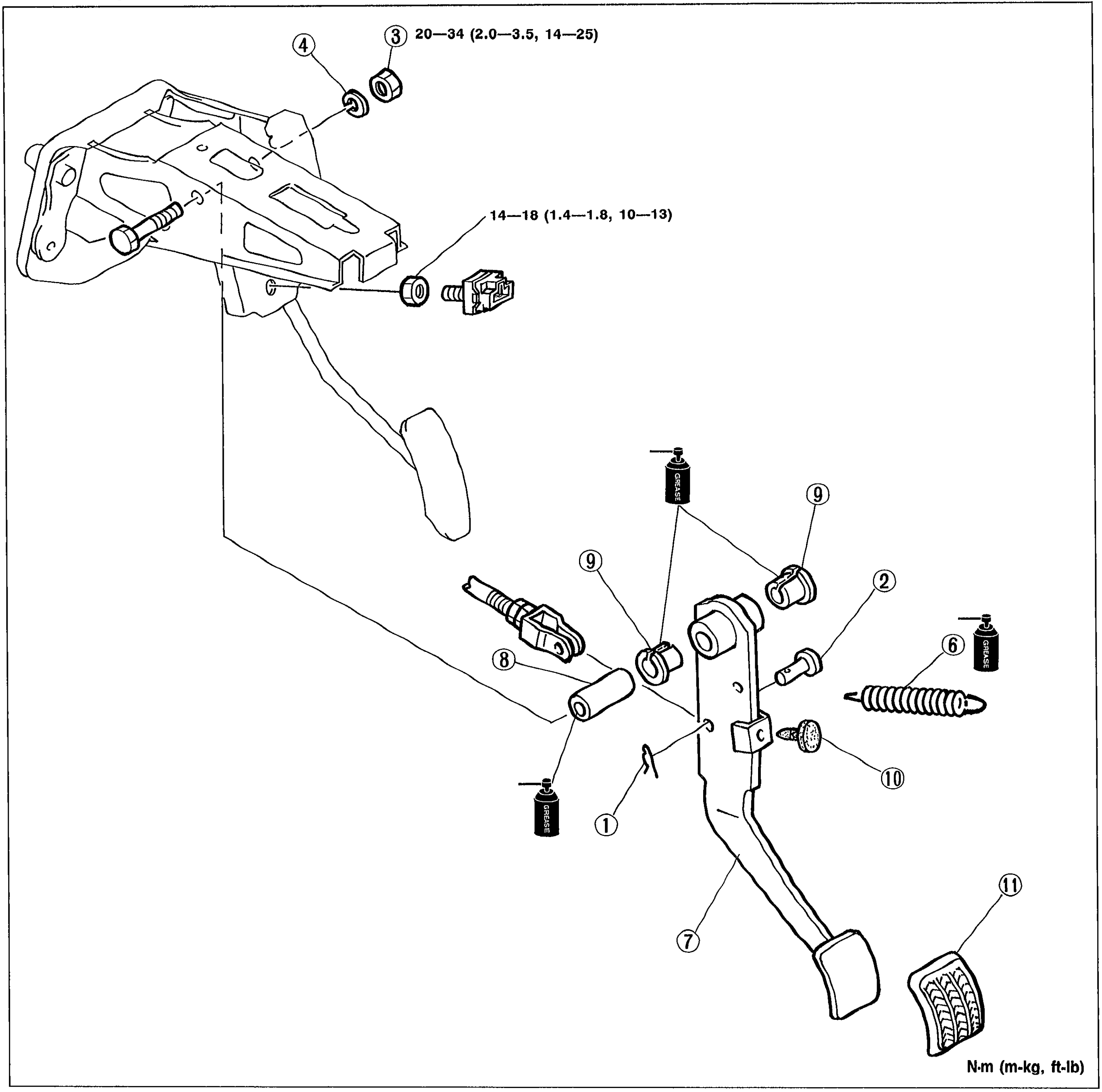
If the distance is less than specified, inspect for air in the brake system.

Removal / Inspection / Installation

1. Remove in the order shown in the figure.
2. Inspect all parts and repair or replace as necessary.
3. Install in the reverse order of removal.
4. After installation, check and adjust the pedal height and free play if necessary.

Caution

- **Apply grease to the inner surface of the bushing and to the contact surfaces of the clevis pin and spring.**


④
③ 20—34 (2.0—3.5, 14—25)
14—18 (1.4—1.8, 10—13)
GREASE
⑨
⑨
②
GREASE
⑥
⑧
⑩
GREASE
①
⑦
⑪
N·m (m-kg, ft-lb)

05U0PX-015

1. Spring clip
2. Clevis pin
3. Nut
4. Spring washer
5. Bolt
6. Return spring
   Inspect for weakness and damage
7. Brake pedal
   Inspect for bending
8. Guide pipe
9. Bushing
   Inspect for wear
10. Stopper rubber
    Inspect for wear
11. Pedal pad
    Inspect for wear and damage

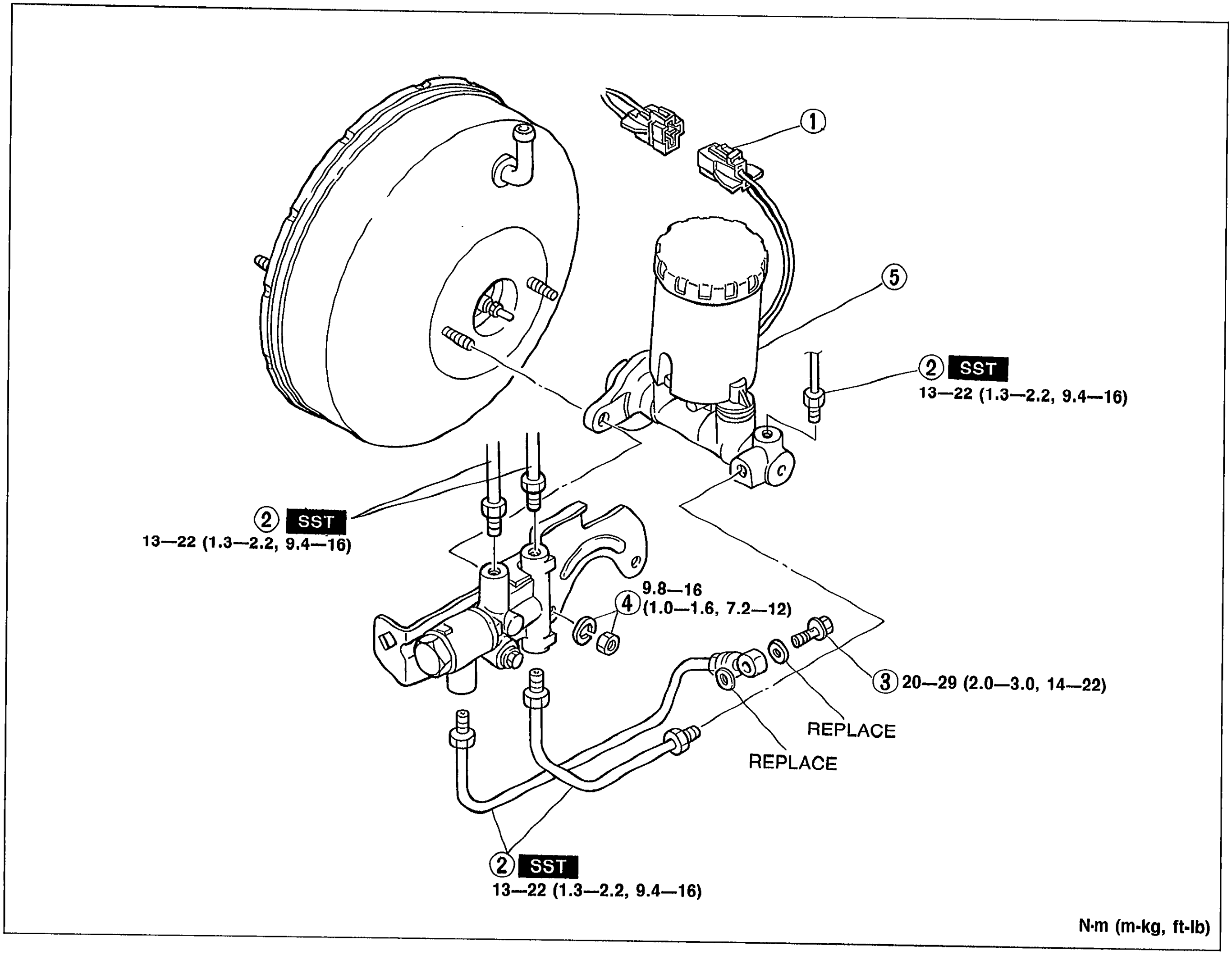
MASTER CYLINDER

Removal / Installation

1. Remove in the order shown in the figure, referring to **Removal Note**.
2. Install in the reverse order of removal, referring to **Installation Note**.
3. After installation, add brake fluid, bleed air, and check for fluid leakage.

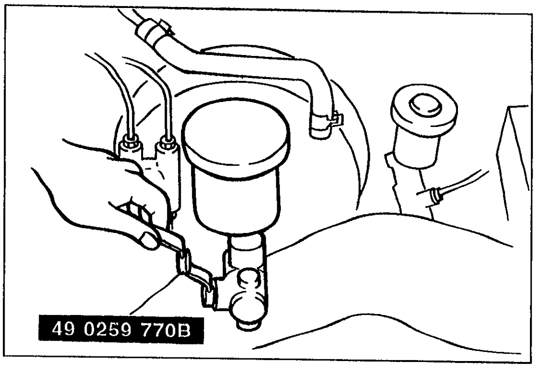
Caution

- **Brake fluid will damage painted surfaces. If it does get on a painted surface, wipe it off immediately.**


①
⑤
② SST
13—22 (1.3—2.2, 9.4—16)
② SST
13—22 (1.3—2.2, 9.4—16)
9.8—16
④ (1.0—1.6, 7.2—12)
③ 20—29 (2.0—3.0, 14—22)
REPLACE
REPLACE
② SST
13—22 (1.3—2.2, 9.4—16)
N·m (m-kg, ft-lb)

05U0PX-016

1. Fluid level sensor connector
2. Brake pipe
   Removal note .... below
3. Connector bolts
4. Nut and washer
5. Reservoir and master cylinder
   Disassembly / Assembly / Inspection .... page P–12


49 0259 770B

9MU0PX-020

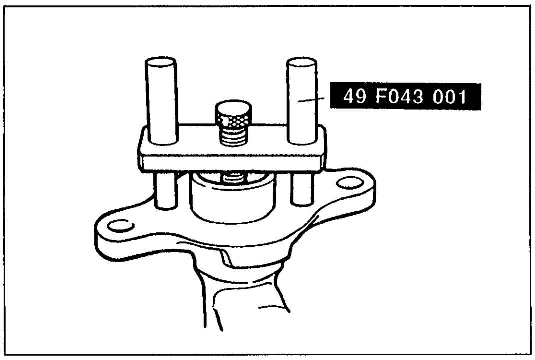
Removal note

Brake pipe

Disconnect/connect the brake pipe from/to the master cylinder with the **SST**.

Installation note

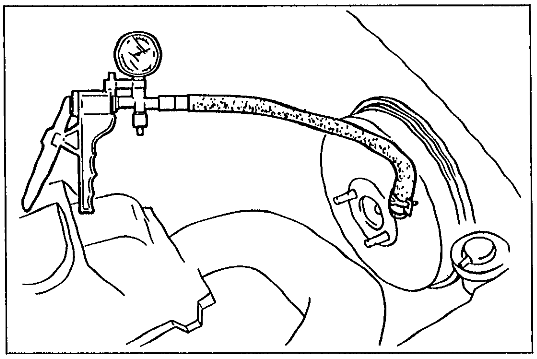
Push rod clearance



05U0PX-017

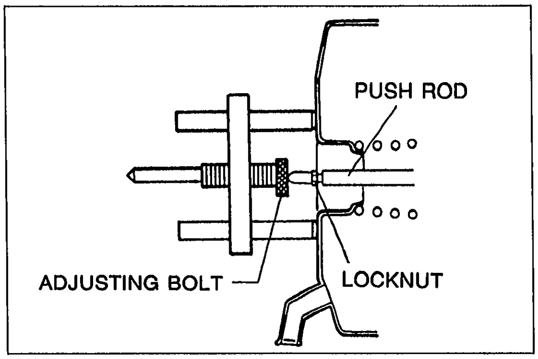
Measure the clearance between the push rod of the power brake unit and the piston of the master cylinder.

1. Place the **SST** atop the master cylinder. Turn the adjustment bolt until it bottoms in the piston.



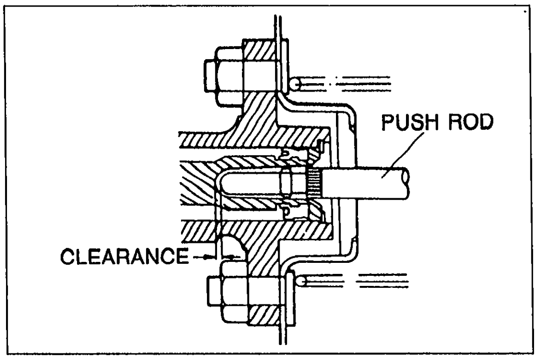
9MU0PX-022

2. Apply **500 mmHg (19.7 inHg)** vacuum to the power brake unit with a vacuum pump.
3. Invert the adjustment gauge used in Step 1, and place it on the power brake unit.



05U0PX-018

4. Measure the clearance between the end of the adjustment bolt and the push rod of the power brake unit.
   If it is not **0mm (0 in)**, loosen the push rod locknut and turn the push rod to make the adjustment.



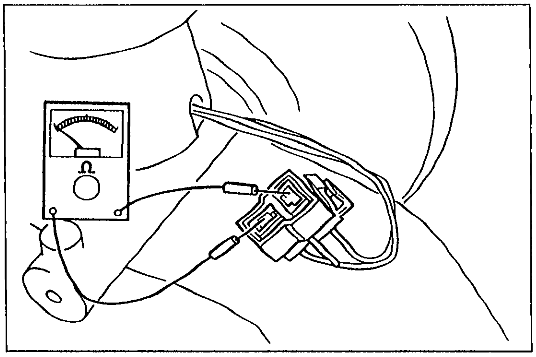
05U0PX-019

Reference

By making the above adjustment, the clearance between the push rod and piston (after installation of the brake master cylinder and the power brake unit) will be as shown in the table below.

	Clearance
When vacuum applied to unit is approx. 500 mmHg (19.7 inHg)	0.1—0.3mm (0.004—0.012 in)

Inspection



9MU0PX-025

Fluid level sensor

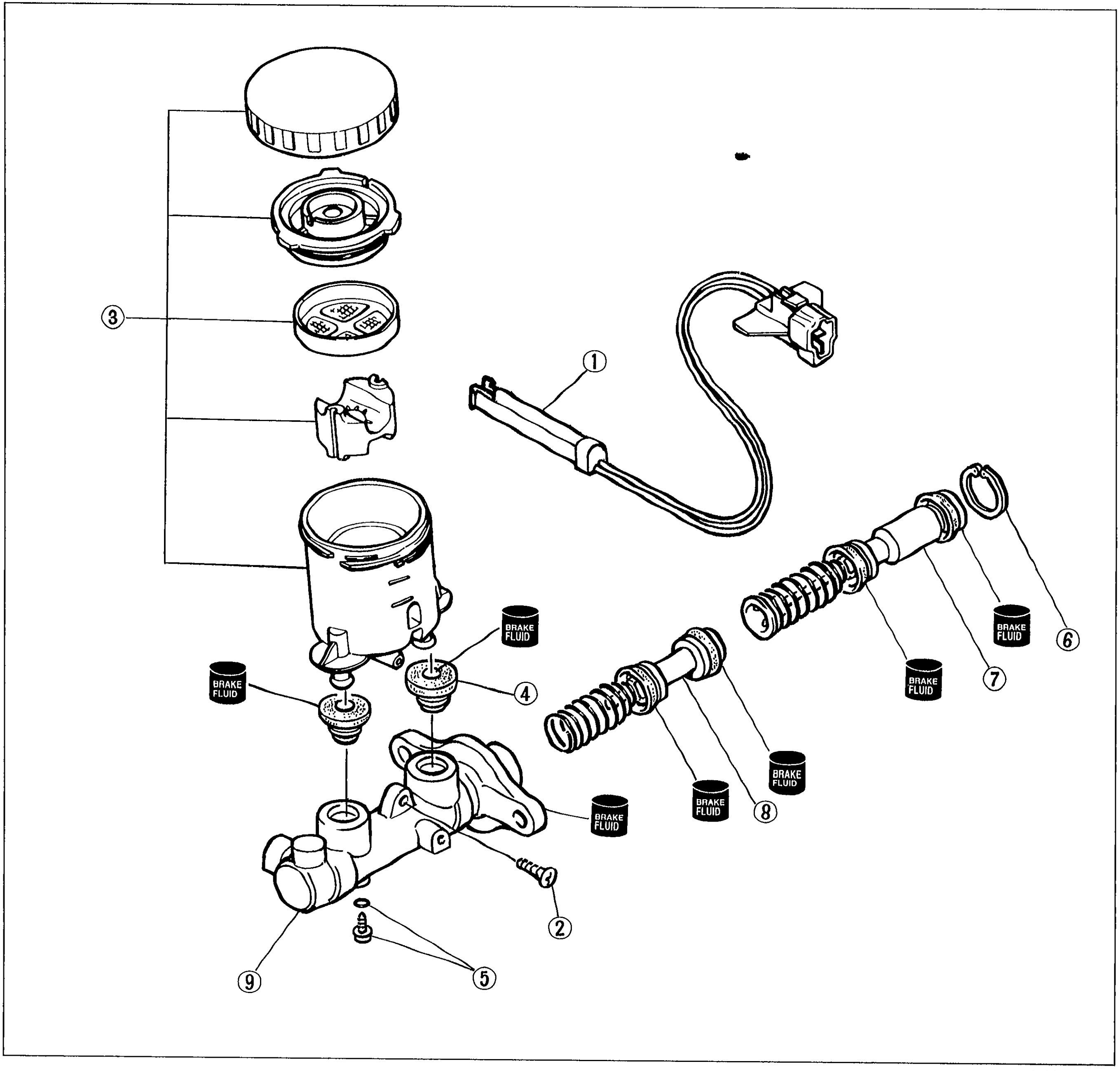
1. Disconnect the sensor connector.
2. Connect an ohmmeter to the connector.
3. Starting with the fluid level above the MIN mark on the reservoir, verify that there is no continuity.
4. Remove the brake fluid and verify continuity when the level is below the MIN mark.
5. Replace the sensor if necessary.

Disassembly / Assembly / Inspection

1. After removing the brake fluid, disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Inspect all parts and repair or replace as necessary.
3. Assemble in the reverse order of removal, referring to **Assembly Note**.

Caution

- **Secure the master cylinder flange in a vise when necessary.**
- **Replace the piston assembly if necessary.**
- **Do not let foreign material enter the cylinder, and do not scratch the inside of the cylinder or the outer surface of the piston.**


③
①
BRAKE FLUID
BRAKE FLUID
④
BRAKE FLUID
BRAKE FLUID
⑥
⑦
BRAKE FLUID
BRAKE FLUID
BRAKE FLUID
⑧
②
⑨
⑤

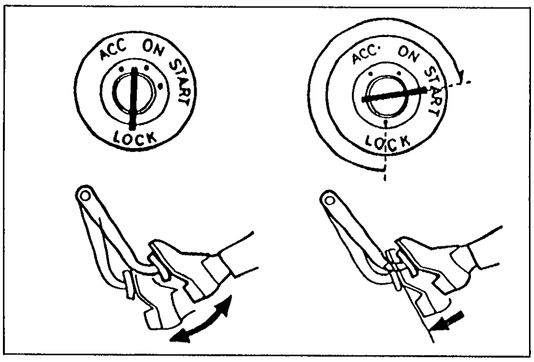
05U0PX-020

1. Fluid level sensor
2. Screw
3. Reservoir assembly
   Inspect for damage and deformation
4. Bushings
5. Stopper screw and O-ring
6. Snap ring
7. Primary piston assembly
   Inspect for abnormal wear, rust, and damage
8. Secondary piston assembly
   Inspect for abnormal wear, rust, and damage
9. Cylinder
   Inspect for abnormal wear, rust, and damage

POWER BRAKE UNIT

Quick Inspection, On-vehicle

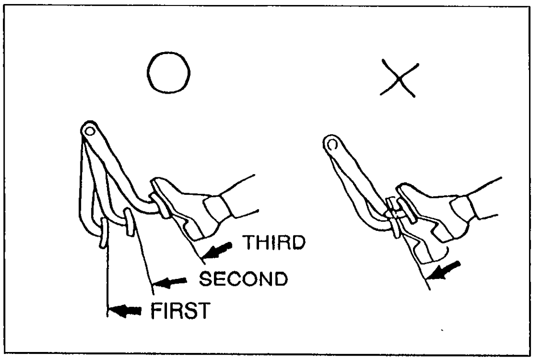
Power brake unit function check (Simple method)



05U0PX-021

Step 1

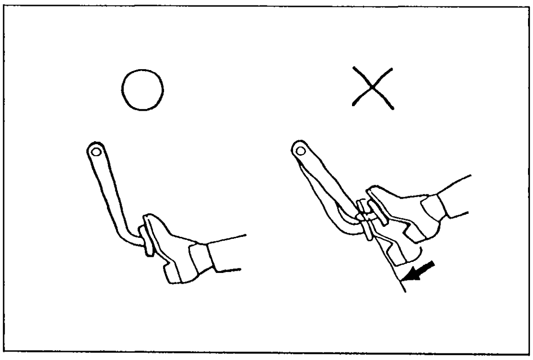
1. With the engine stopped, depress the pedal a few times.
2. With the pedal depressed, start the engine.
3. If immediately after the engine starts the pedal moves down slightly, the unit is operating.



05U0PX-022

Step 2

1. Start the engine and let it run **1 or 2 minutes**.
2. Stop the engine.
3. Depress the pedal with the usual force.
4. If the first pedal stroke is long and becomes shorter with subsequent strokes, the unit is operating.
5. If a problem is found, inspect for damage or improper connection of the check valve or vacuum hose. Repair if necessary, and inspect it once again.

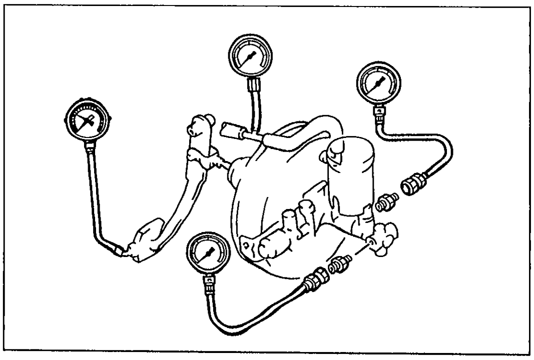


05U0PX-023

Step 3

1. Start the engine.
2. Depress the pedal with the usual force.
3. Stop the engine with the pedal depressed.
4. Hold the pedal down for **about 30 seconds**.
5. If the pedal height does not change, the unit is operating.
6. If there is a problem, check for damage or improper connection of the check valve or vacuum hose. Repair if necessary, and check once again.

If the nature of the problem is still not clear after following the 3 steps above, follow the more detailed check described in "Method using tester," below.



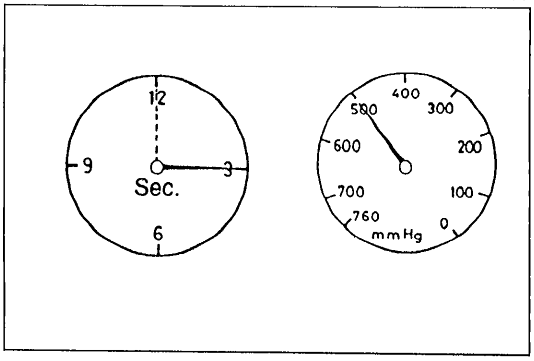
9MU0PX-033

(Method using tester)

Connect a pressure gauge, vacuum gauge, and pedal depression force gauge as shown in the figure. After bleeding the air from the pressure gauge, conduct the test as described in the 3 steps below.

Note

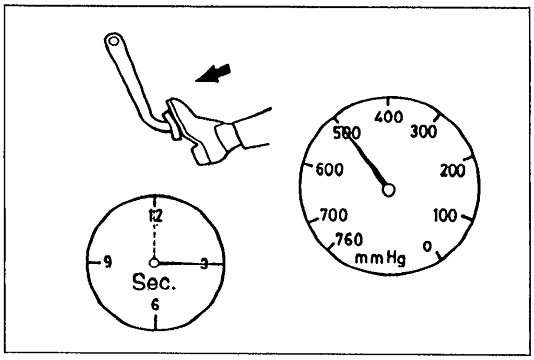
- **Use commercially available gauges and pedal depression force gauge.**



05U0PX-024

a) Checking for vacuum loss
Unloaded condition

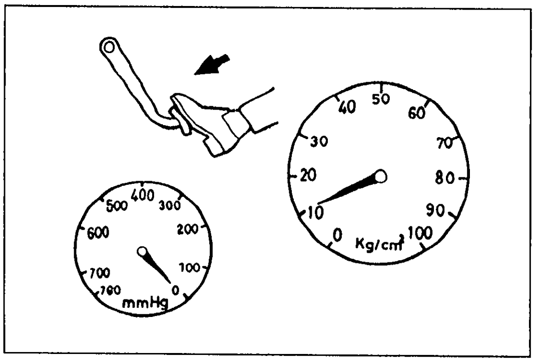
1. Start the engine.
2. Stop the engine when the vacuum gauge indicates **500 mmHg (19.7 inHg)**.
3. Observe the vacuum gauge for **15 seconds**. If the gauge indicates **475—500 mmHg (18.7—19.7 inHg)**, the unit is operating.


400
300
500
600
200
700
100
760
0
mmHg
12
9
3
Sec.
6

05U0PX-025

Loaded condition

1. Start the engine.
2. Depress the brake pedal with a force of **196 N (20 kg, 44 lb)**.
3. With the brake pedal depressed, stop the engine when the vacuum gauge indicates **500 mmHg (19.7 inHg)**.
4. Observe the vacuum gauge for **15 seconds**. If the gauge indicates **475—500 mmHg (18.7—19.7 inHg)**, the unit is operating.

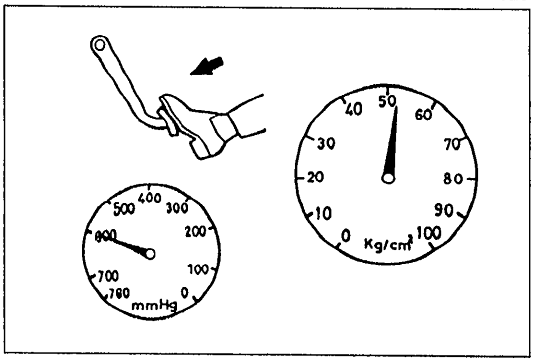

40
50
60
30
70
20
80
10
90
0
Kg/cm²
100
500
400
300
600
200
700
100
760
0
mmHg

05U0PX-026

b) Checking for hydraulic pressure

1. If with the engine stopped **(vacuum 0 mmHg [0 inHg])** the fluid pressure is within specification, the unit is operating.

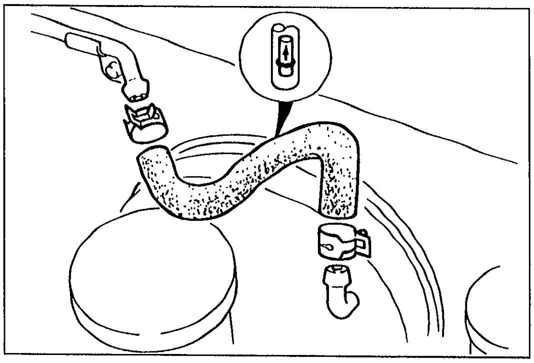
Pedal force	Fluid pressure
196 N (20 kg, 44 lb)	1,079—1,177 kPa (11—12 kg/cm^2, 156—171 psi)


40
50
60
30
70
20
80
10
90
0
Kg/cm²
100
500
400
300
600
200
700
100
760
0
mmHg

05U0PX-027

2. Start the engine. Depress the brake pedal when the vacuum reaches **500 mmHg (19.7 inHg)**. If the fluid pressure is within specification, the unit is operating.

Pedal force	Fluid pressure
196 N (20 kg, 44 lb)	5,199—5,494 kPa (53—56 kg/cm^2, 754—796 psi)



05U0PX-028

Inspection of check valve

Note

- **The check valve is pressed into the vacuum hose. There is an arrow on the hose to indicate direction of hose installation.**

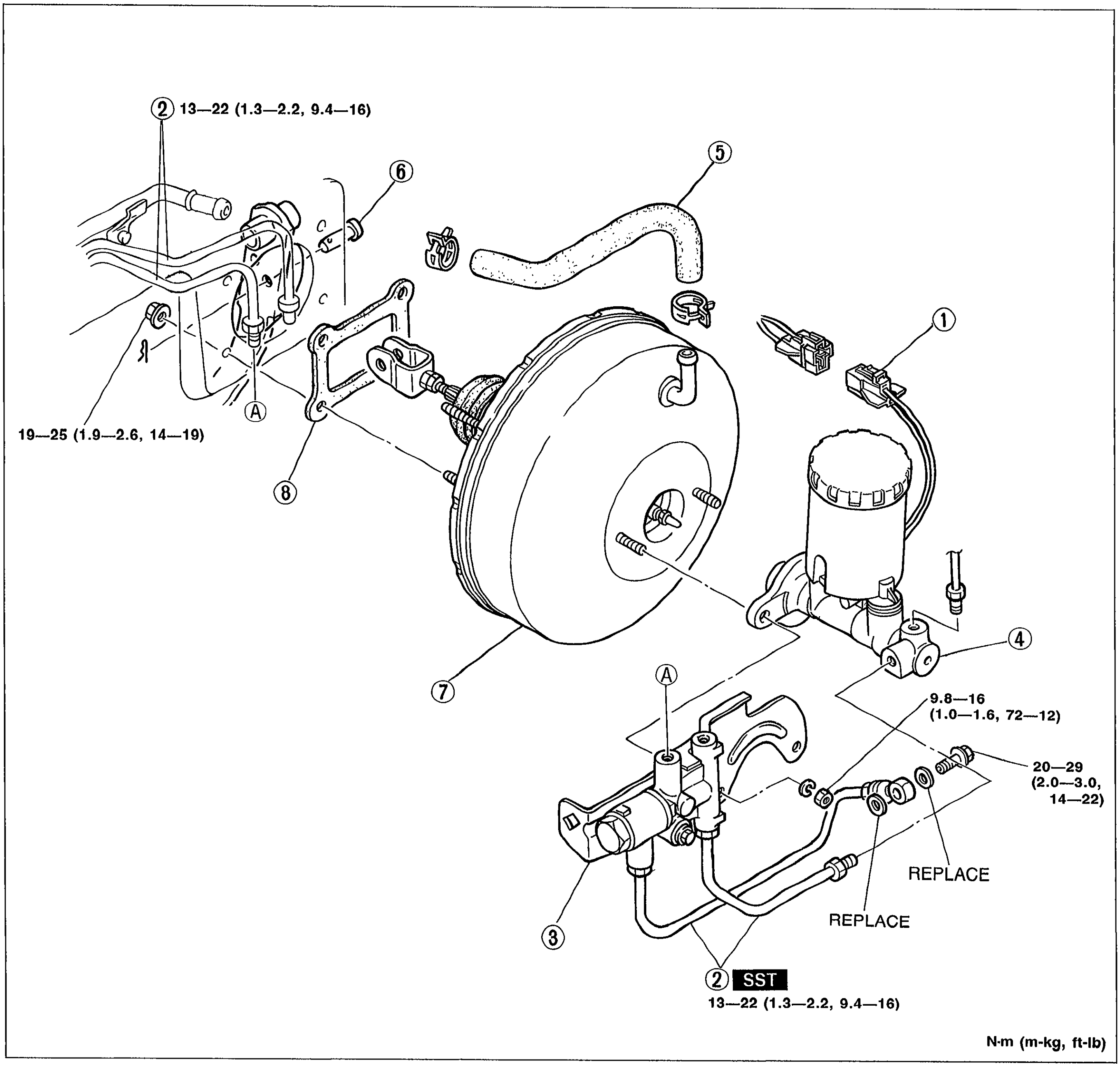
Inspection

1. Disconnect the vacuum hose from the engine.
2. Apply suction and pressure to the hose from the engine side. Verify that air flows only toward the engine. If the air passes in both directions or not at all, replace the vacuum hose (along with the check valve).

Removal / Installation

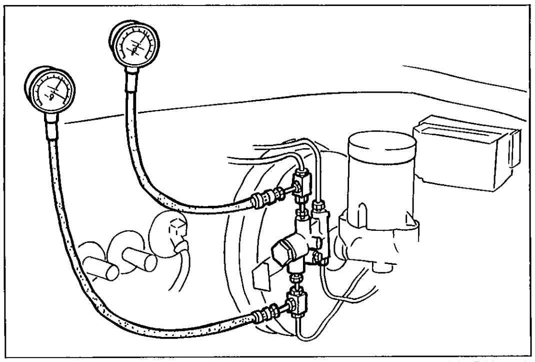
1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.
3. Take the following steps after installation:
   (1) Check and adjust the push rod and piston clearance. (Refer to page P–11.)
   (2) Add fluid and bleed the air. (Refer to page P–6.)
   (3) Check all parts for fluid leakage.
   (4) Make an on-vehicle check of the unit. (Refer to page P–13.)
   (5) Check that the vacuum hose does not contact other parts.

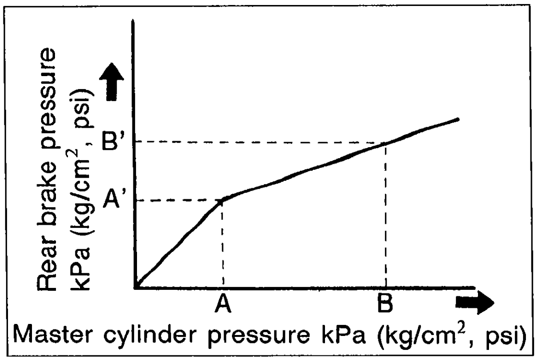
Caution
- **Apply grease to the clevis pin.**
- **Apply sealant to the gasket contact surface.**


② 13—22 (1.3—2.2, 9.4—16)
⑥
⑤
①
Ⓐ
19—25 (1.9—2.6, 14—19)
⑧
④
Ⓐ
⑦
9.8—16
(1.0—1.6, 72—12)
20—29
(2.0—3.0,
14—22)
REPLACE
REPLACE
③
② SST
13—22 (1.3—2.2, 9.4—16)
N·m (m-kg, ft-lb)

05U0PX-029

1. Fluid level sensor connector	5. Vacuum hose with check valve
2. Brake pipe	6. Clevis pin
3. Proportioning valve	7. Power brake unit
4. Master cylinder	8. Gasket


05U0PX-030



05U0PX-031

PROPORTIONING BYPASS VALVE

Inspection

1. Connect two pressure gauges [9,810 kPa (100 kg/cm^2, 1,422 psi)] to the pipes.
2. Measure the fluid pressure from the master cylinder and to the rear brake.

Specification

Fluid pressure kPa (kg/cm^2, psi)			
A	A'	B	B'
2,943 (30, 427)	2,943 ± 196 (30 ± 2, 427 ± 28)	6,867 (70, 995)	4,120 ± 294 (42 ± 3, 597 ± 43)

Caution

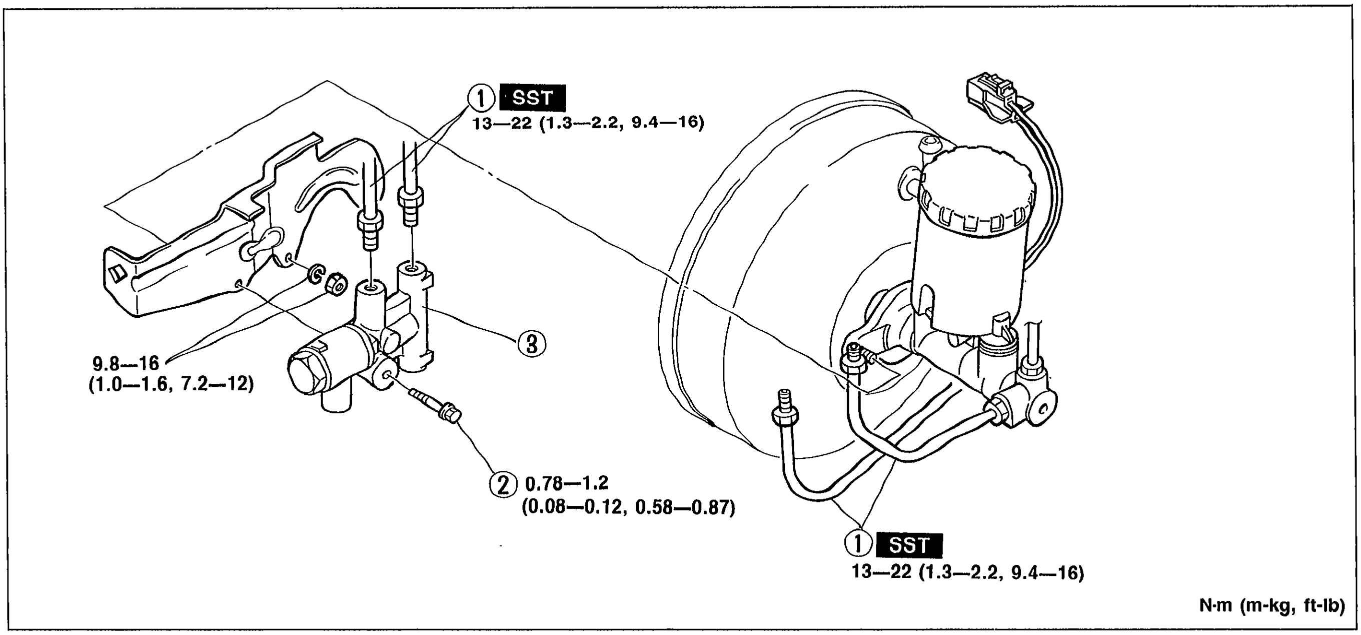
- **If not as specified, replace the valve assembly.**
- **After inspection:**
  Add brake fluid and bleed the air.
  (Refer to page P–6.)
  Check the brake lines for fluid leakage.

Replacement

1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.
3. After installation:
   (1) Add brake fluid and bleed the air. (Refer to page P–6.)
   (2) Check the brake lines for fluid leakage.

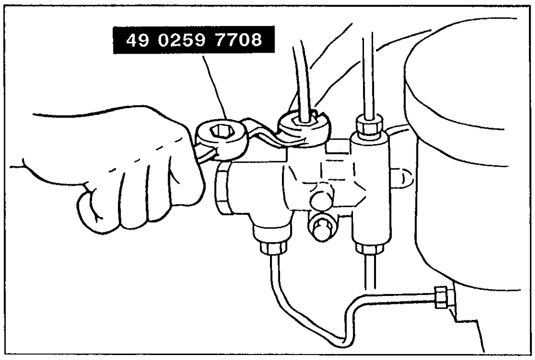
Caution

- **Brake fluid will damage painted surfaces. If it does get on a painted surface, wipe it off immediately.**



05U0PX-032

1. Brake pipe
   Removal.................................... page P–17
   Installation................................ page P–17
2. Bolt
3. Proportioning bypass valve

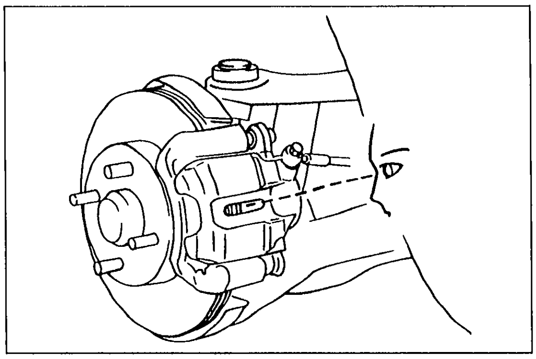


05U0PX-033

Removal / Installation Note

Brake pipe

Disconnect/connect the brake pipes with the **SST**.



05U0PX-034

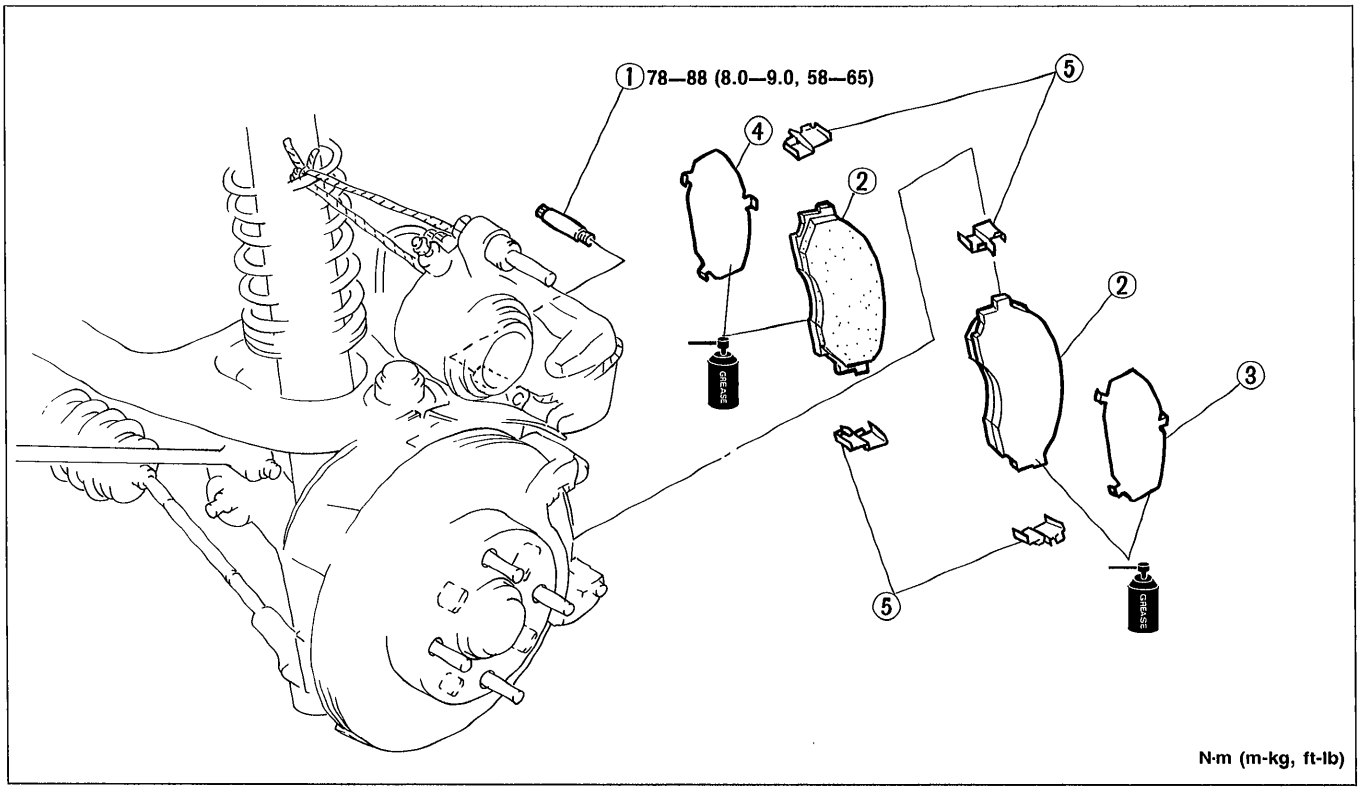
FRONT BRAKE (DISC)
Quick Inspection, On-vehicle
Disc pad

1. Jack up the front of the vehicle and support it with safety stands.
2. Remove the wheels.
3. Sight through the caliper inspection hole and verify the remaining thickness of the pad.

Thickness: 1.0mm (0.04 in) min.

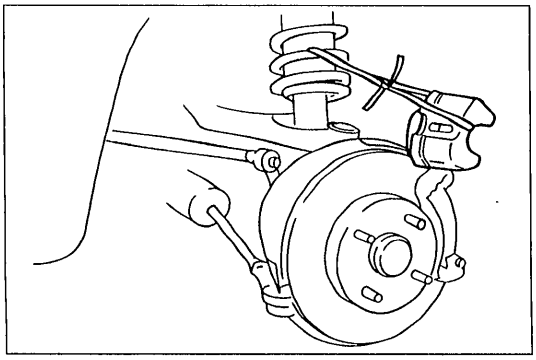
Replacement
Disc pad

1. Remove in the order shown in the figure.
2. Install in the reverse order of removal, referring to **Installation Note**.



05U0PX-035

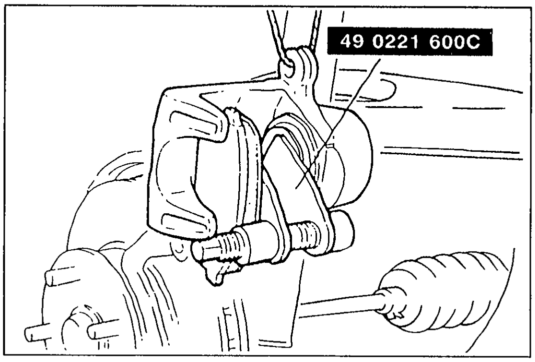
1. Lock bolt
    Removal.................................... page P–18
2. Disc pad
    Installation................................ page P–19
3. Outer shim
4. Inner shim
5. Guide plate



05U0PX-036

Removal
Lock bolt

1. Remove the lower lock bolt.
2. Rotate the caliper upward and support it with a piece of rope.


49 0221 600C

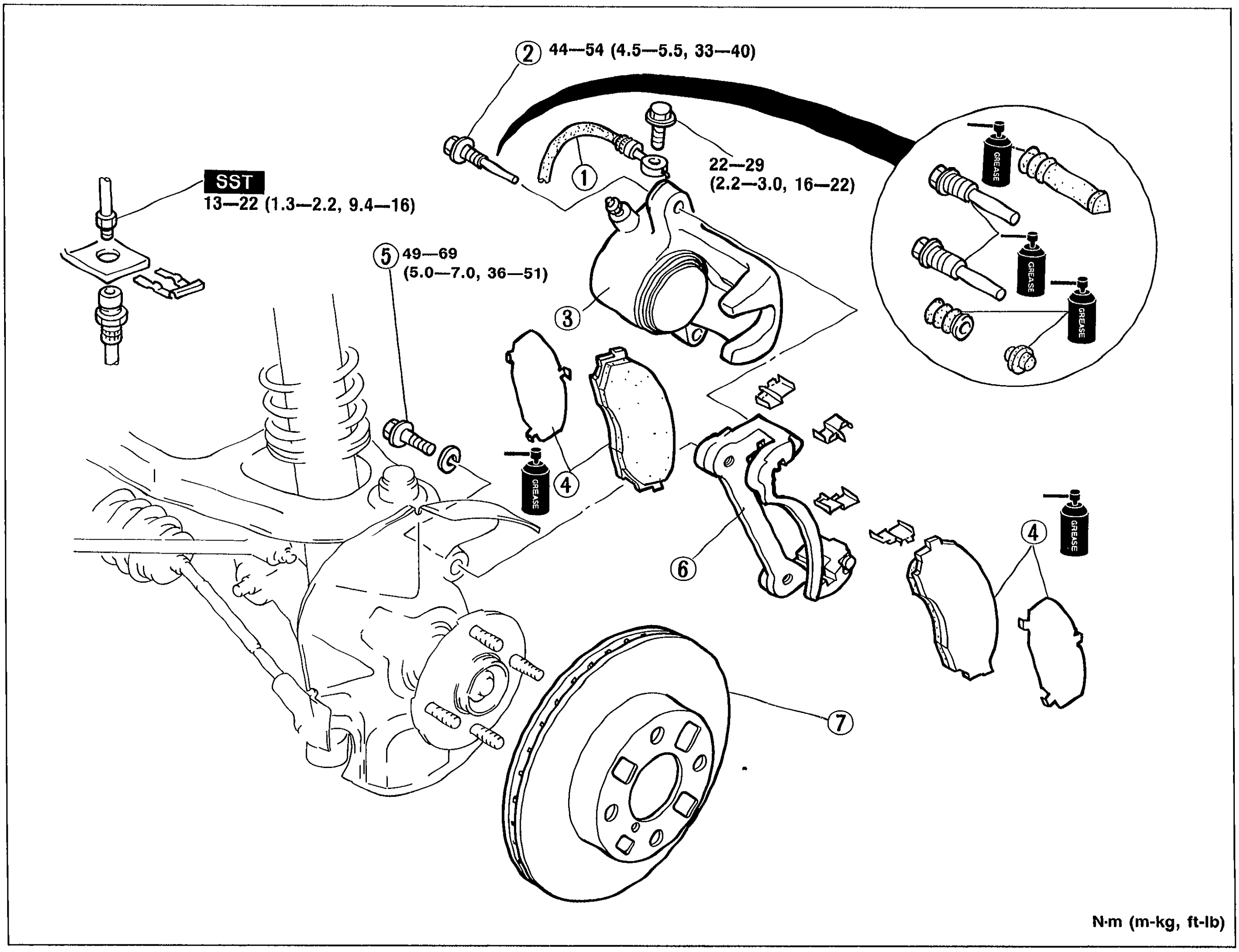
05U0PX-037

Installation
Disc pad

1. Push the piston inward with the **SST**.
2. Install the new pads in the mounting support.

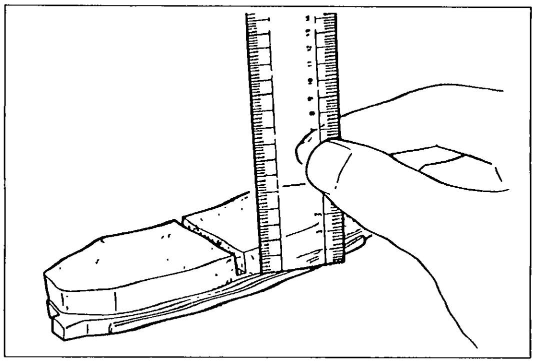
Removal / Installation
Caliper

1. Jack up the front of the vehicle and support it with safety stands.
2. Remove the wheels; then remove components in the order shown in the figure.
3. Install in the reverse order of removal.
4. Tighten all nuts and bolts to the specified torques, referring to the figure.


② 44—54 (4.5—5.5, 33—40)
SST
13—22 (1.3—2.2, 9.4—16)
①
22—29
(2.2—3.0, 16—22)
⑤ 49—69
(5.0—7.0, 36—51)
③
GREASE
④
⑥
④
⑦
N·m (m-kg, ft-lb)

05U0PX-038

1. Brake hose
2. Lock bolt
3. Brake caliper assembly
    Disassembly / Assembly .... page P–21
4. Disc pad assembly
    Inspection .... page P–20
5. Bolt
6. Mounting support
7. Disc plate
    Inspection .... page P–20



05U0PX-039

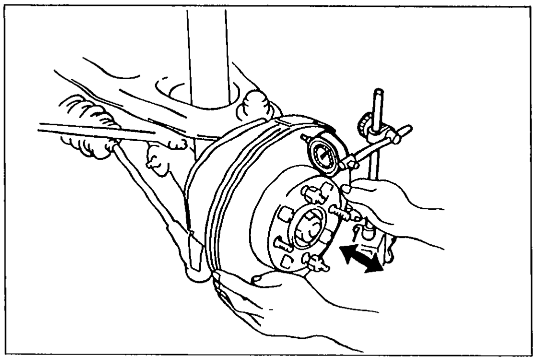
Inspection

Check the following and repair or replace parts as necessary.

Disc pad

1. Oil or grease on facing.
2. Abnormal wear or cracks.
3. Deterioration or damage by heat.
4. Remaining lining thickness.

Thickness: 1.0mm (0.04 in) min.



05U0PX-040

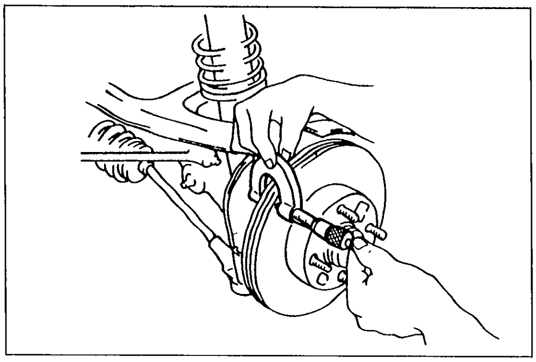
Disc plate

1. Runout.

Runout: 0.1mm (0.004 in) max.

Caution

- **There must be no wheel bearing looseness.**
- **The measurement must be taken at the outer edge of the disc plate surface.**



05U0PX-041

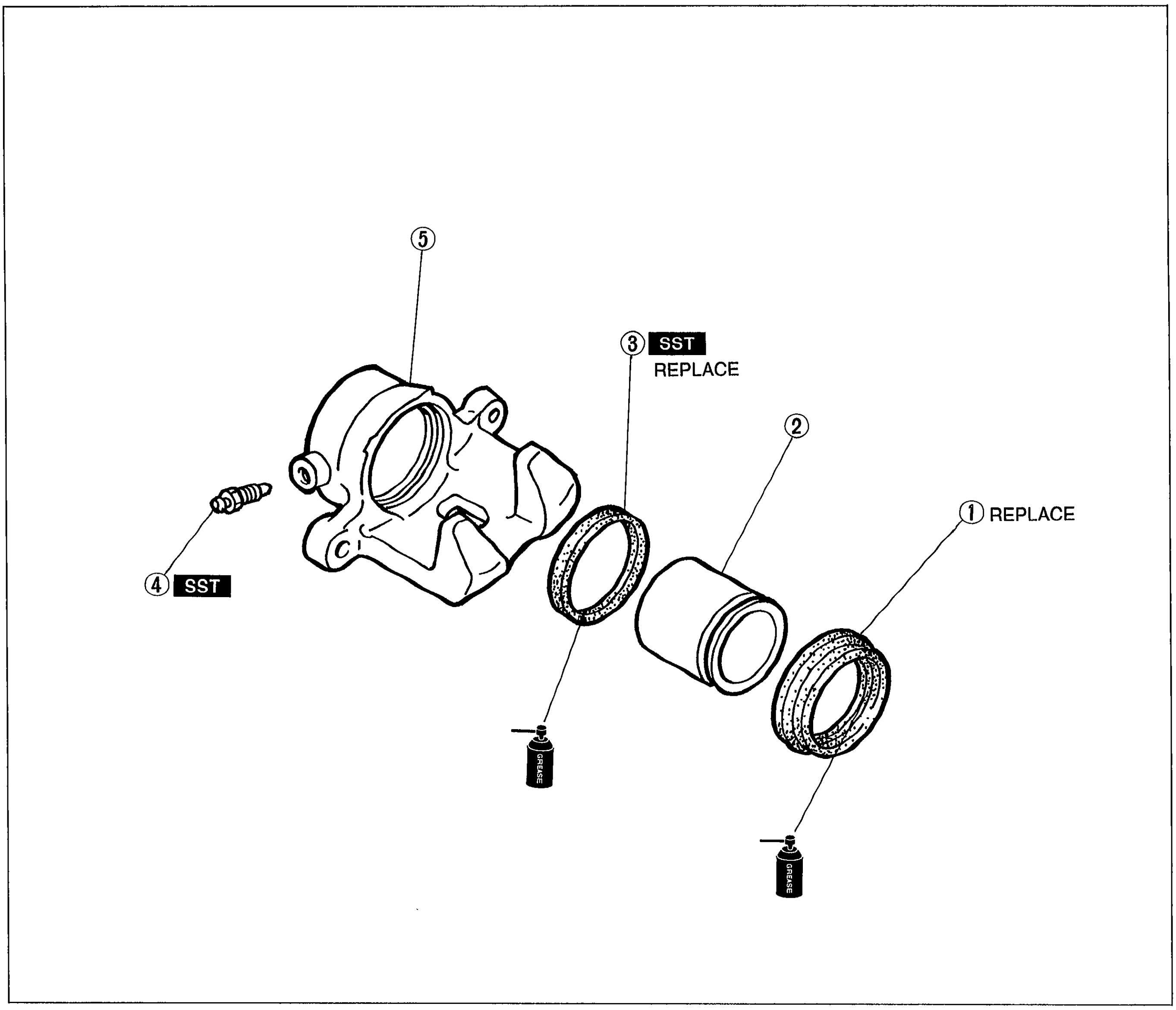
2. Wear and damage.

Thickness
Standard: 18mm (0.71 in)
Minimum: 16mm (0.63 in)

CALIPER

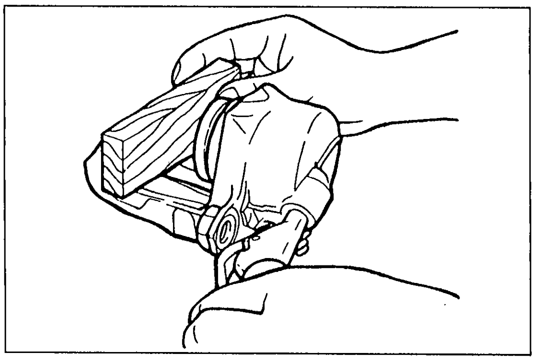
Disassembly / Inspection / Assembly

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Install in the reverse order of removal.



05U0PX-042

1. Dust seal
   Inspect for damage and poor sealing
2. Piston
   Disassembly .... page P–21
   Inspect for wear and rust
3. Piston seal
4. Bleeder screw
5. Caliper body
   Inspect for damage and cracks



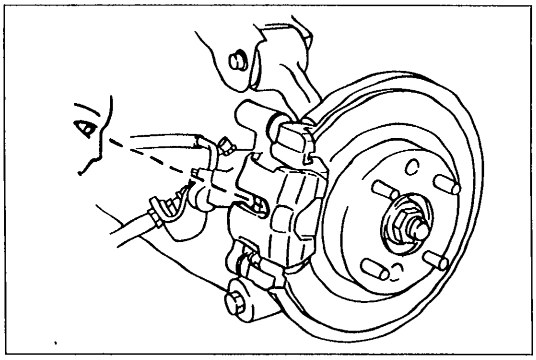
9MU0PX-075

Disassembly note
Piston

Place a piece of wood in the caliper; then blow compressed air through the hole to force the piston out of the caliper.

Caution

- **Blow the compressed air slowly to prevent the piston from popping out.**



05U0PX-043

REAR BRAKE (DISC)

Quick Inspection, On-vehicle

Disc pad

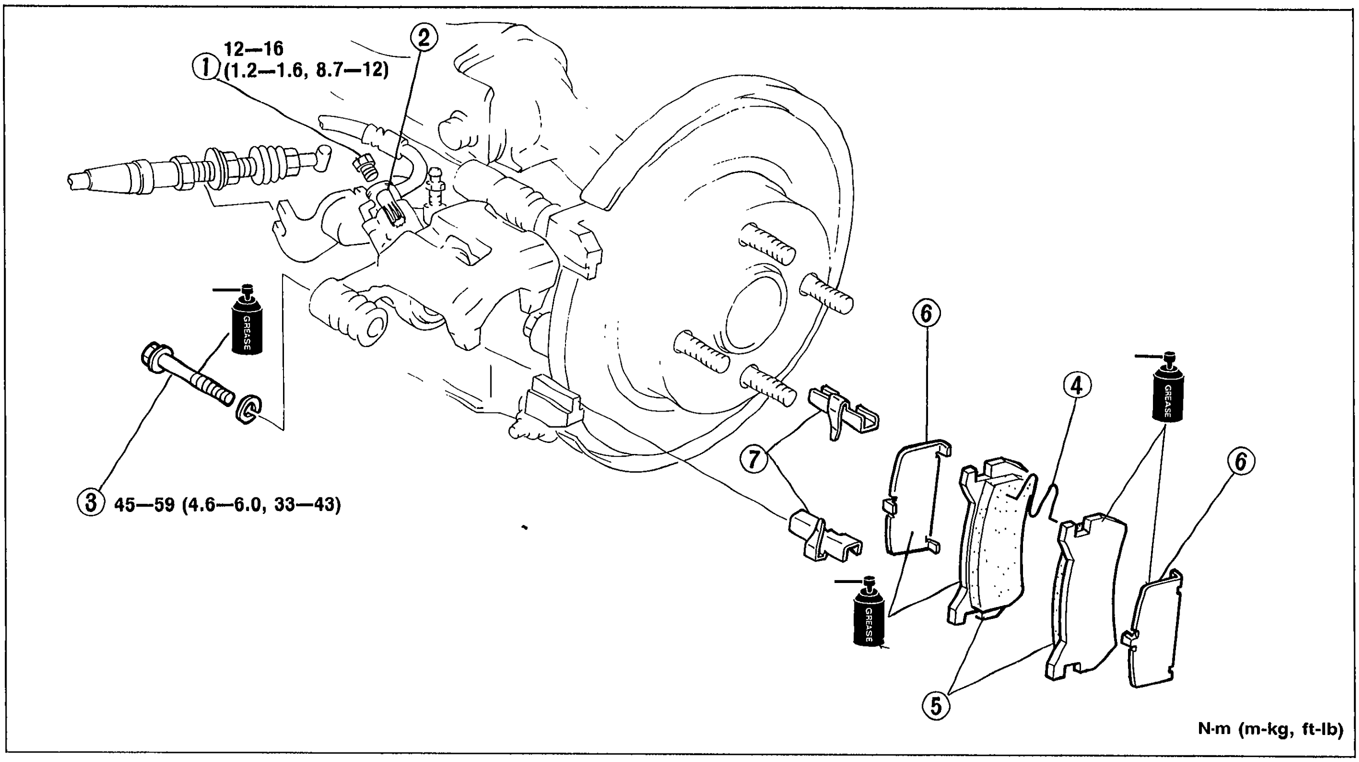
1. Jack up the rear of the vehicle and support it with safety stands.
2. Remove the wheels.
3. Sight through the caliper inspection hole and verify the remaining thickness of the pad.

Thickness: 1.0mm (0.04 in) min.

Replacement

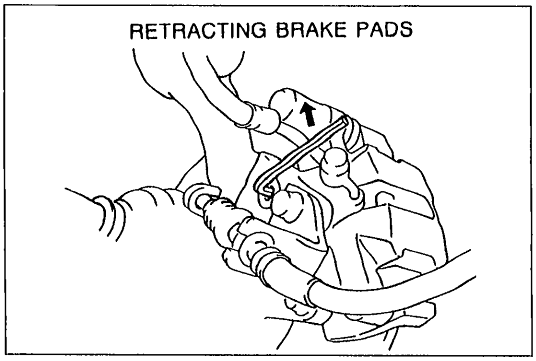
Disc pad

1. Remove in the order shown in the figure, referring to **Removal Note**.
2. Install in the reverse order of removal, referring to **Installation Note**.


12—16
① (1.2—1.6, 8.7—12)
②
GREASE
③ 45—59 (4.6—6.0, 33—43)
⑥
④
GREASE
⑦
⑥
GREASE
⑤
N·m (m-kg, ft-lb)

05U0PX-044

1. Plug
2. Manual adjustment gear
   Removal .... below
   Installation .... page P–23
3. Lock bolt
4. M-spring
5. Disc pad
   Inspection .... page P–24
6. Shim
7. Guide plate

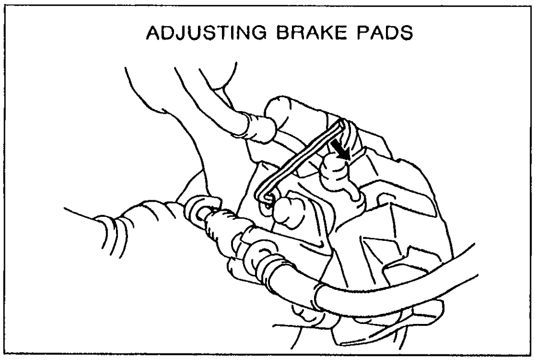

RETRACTING BRAKE PADS

05U0PX-045

Removal note

Manual adjustment gear

Turn the manual adjustment gear counterclockwise with an Allen wrench to pull the brake caliper piston back.


ADJUSTING BRAKE PADS

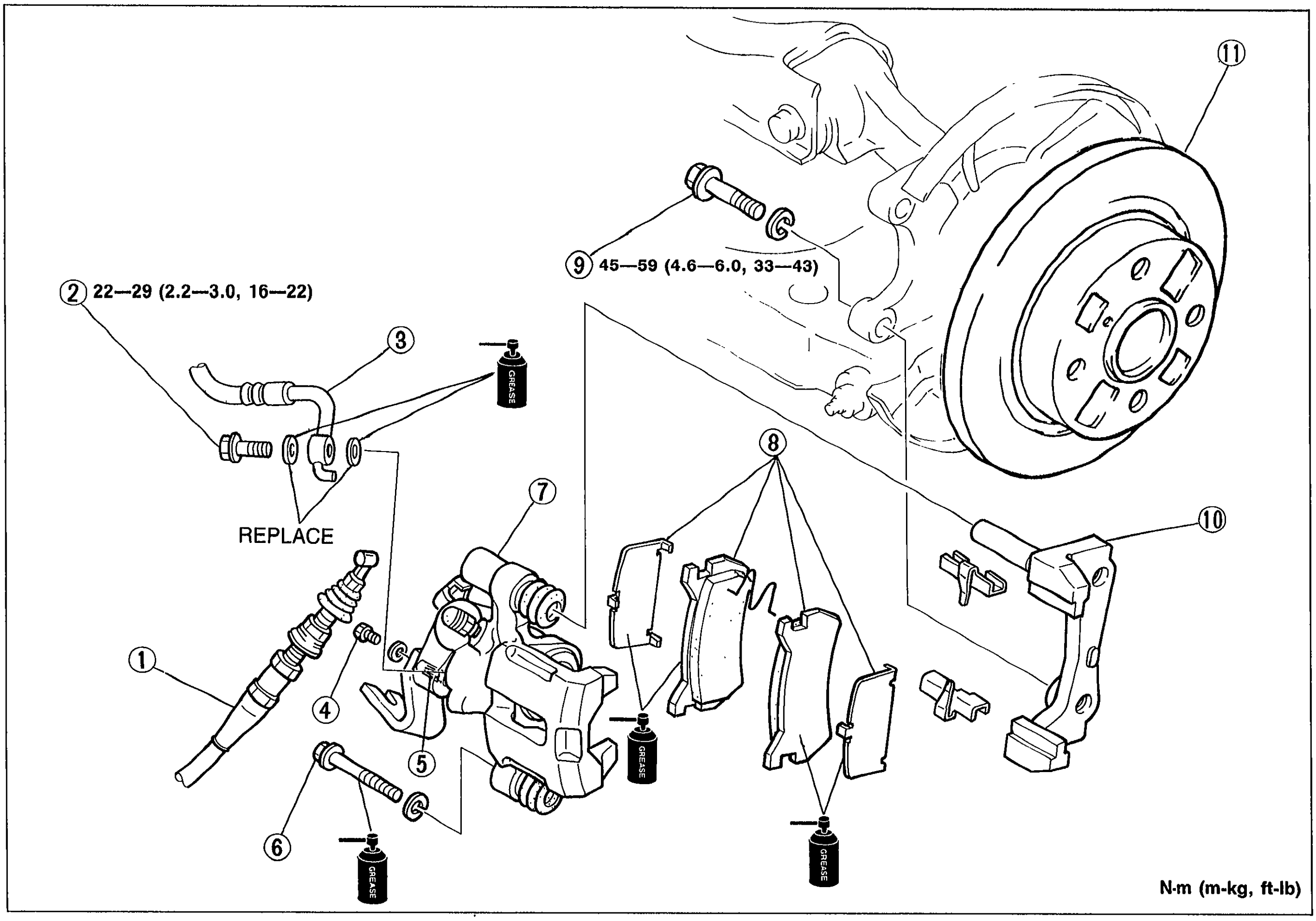
05U0PX-046

Installation note
Manual adjustment

1. Turn the manual adjustment gear clockwise until the brake pads just touch the disc plate.
2. Return the manual adjustment gear counterclockwise 1/3 turn.

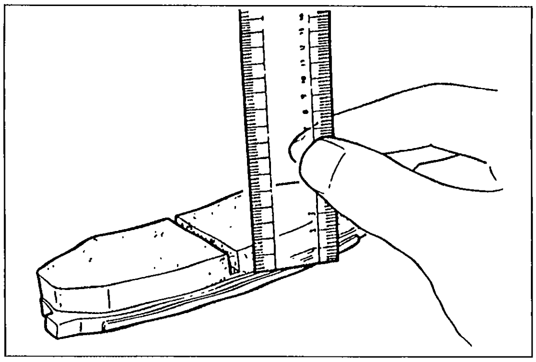
Removal / Installation
Caliper

1. Jack up the rear of the vehicle and support it with safety stands.
2. Remove the wheels; then remove components in the order shown in the figure.
3. Install in the reverse order of removal.
4. Tighten all nuts and bolts to the specified torques, referring to the figure.

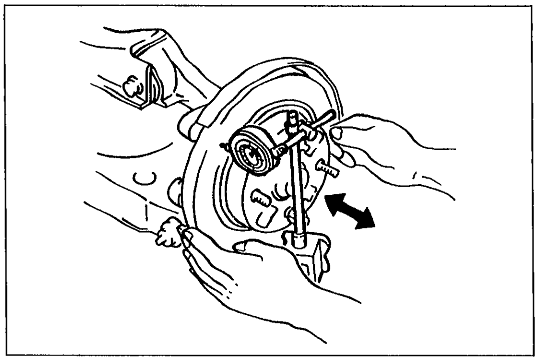

⑪
⑨ 45—59 (4.6—6.0, 33—43)
② 22—29 (2.2—3.0, 16—22)
③
GREASE
⑧
⑦
⑩
REPLACE
①
④
⑤
⑥
GREASE
GREASE
GREASE
N·m (m-kg, ft-lb)

05U0PX-047

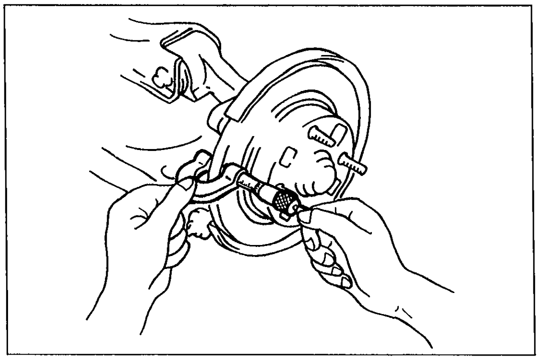
1. Parking cable
   Removal / Inspection / Installation page P–29
2. Connecting bolt
3. Brake hose
4. Plug
5. Manual adjustment gear
   Removal.................................... page P–22
   Installation................................. page P–23
6. Lock bolt
7. Caliper
   Disassembly / Assembly............. page P–25
8. Disc pad assembly
   Replacement.............................. page P–22
   Inspection.................................. page P–24
9. Bolt
10. Mounting support
11. Disc plate
    Inspection.................................. page P–24



05U0PX-048



05U0PX-049



05U0PX-050

Inspection

Check the following and repair or replace parts as necessary.

Disc pad

1. Oil or grease on facing.
2. Abnormal wear or cracks.
3. Deterioration or damage by heat.
4. Remaining lining thickness.

Thickness: 1.0mm (0.04 in) min.

Disc plate

1. Runout.

Runout: 0.1mm (0.004 in) max.

Caution

- **There must be no wheel bearing looseness.**
- **The measurement must be taken at the outer edge of the disc plate surface.**

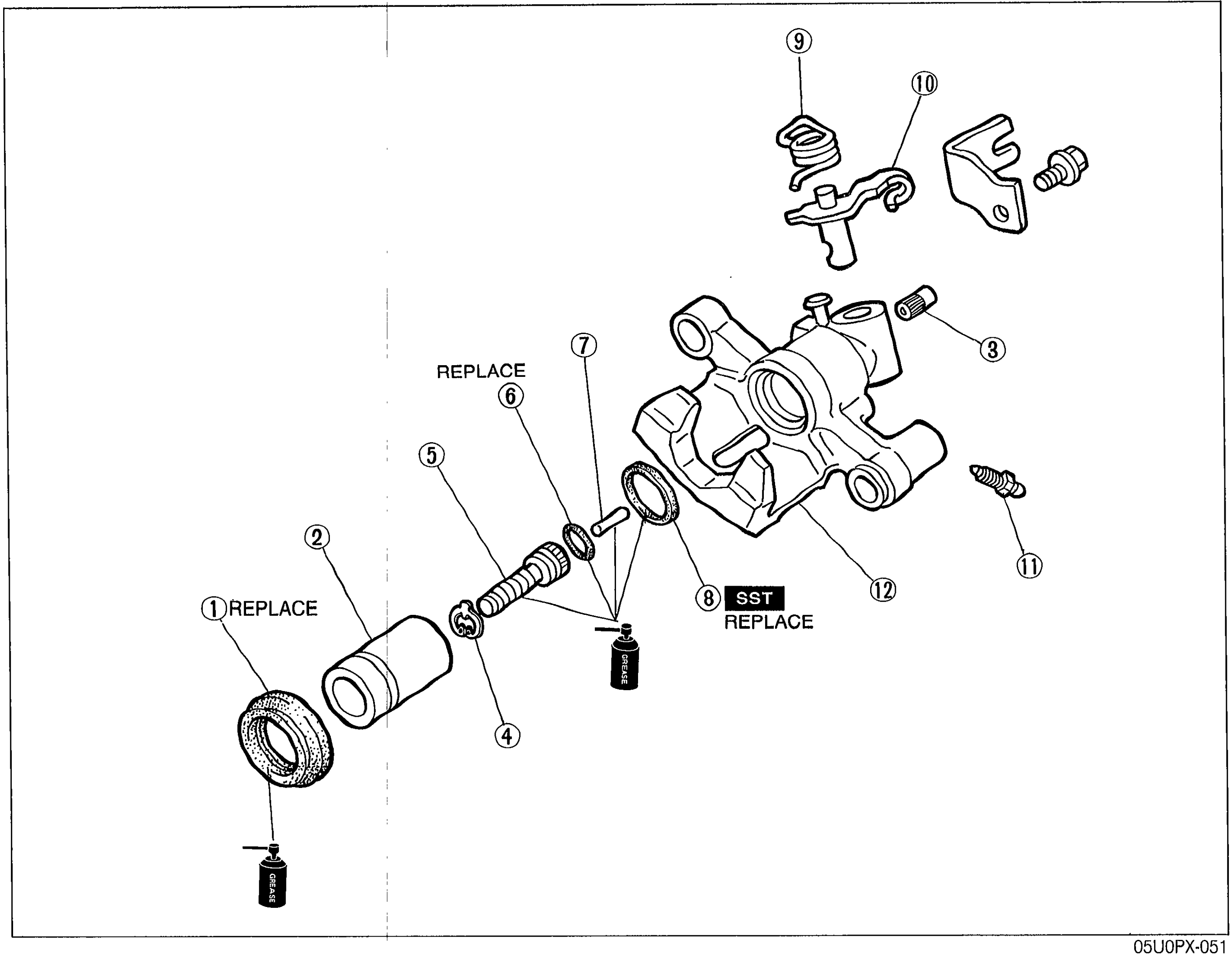
2. Wear or damage.

Thickness
Standard: 9.0mm (0.35 in)
Minimum: 7.0mm (0.28 in)

CALIPER

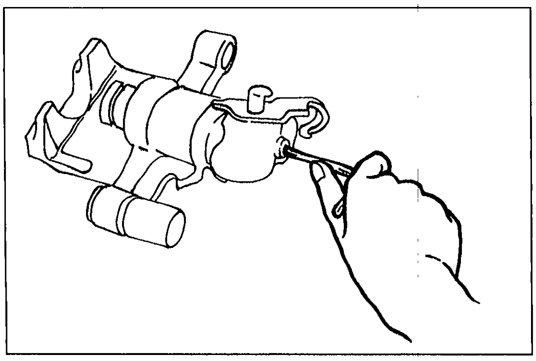
Disassembly / Inspection / Assembly

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Install in the reverse order of removal.



05U0PX-051

1. Dust seal
   Inspect for damage and poor sealing
2. Piston
   Disassembly .... below
   Assembly .... page P–26
   Inspect for wear and rust
3. Manual adjustment gear
4. Snap ring
5. Adjusting bolt
6. O-ring
7. Connecting link
8. Piston seal
9. Spring
10. Operating lever
11. Cap and bleeder screw
12. Caliper body
    Inspect for damage and cracks

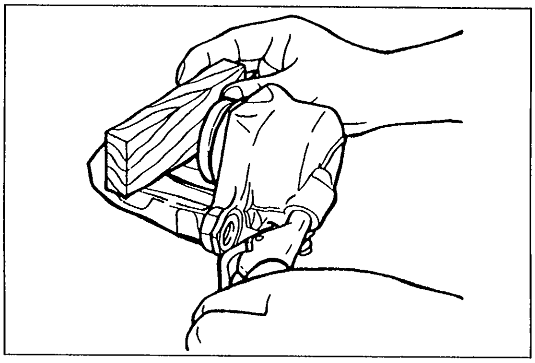


05U0PX-052

Disassembly note

Piston

1. Turn the adjustment gear clockwise with an Allen wrench to remove the piston from it. (Turn the adjustment gear until it turns easily.)

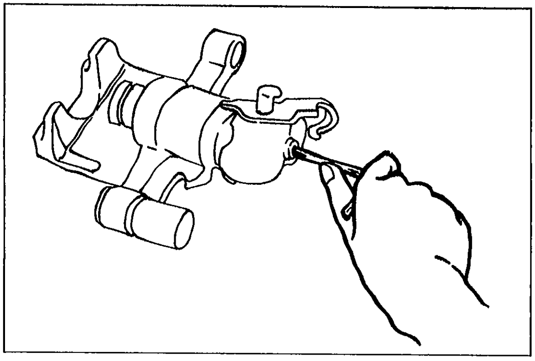


05U0PX-053

2. Place a piece of wood in the caliper; then blow compressed air through the hole to force the piston out of the caliper.

Caution

- **Blow the compressed air slowly to prevent the piston from popping out.**



05U0PX-054

Assembly

Piston

Insert the piston into the caliper and turn the adjustment gear counterclockwise with an Allen wrench to pull the piston in fully. (Turn the adjustment gear until it stops.)

PARKING BRAKE SYSTEM

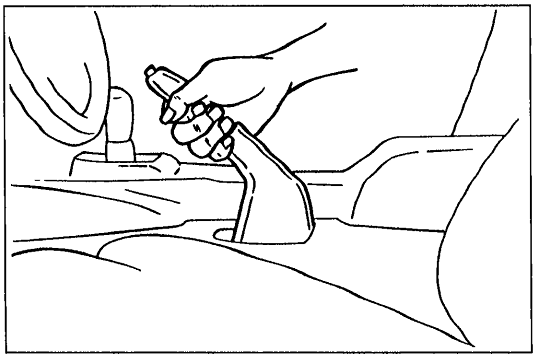
TROUBLESHOOTING GUIDE

Problem	Possible cause	Action	Page
Brakes do not release	Improper return of parking brake cable or improper adjustment	Repair or adjust	P–29
Parking brake does not hold well	Excessive lever stroke	Adjust	P–27
	Brake cable stuck or damaged	Repair or replace	P–29
	Brake fluid or oil on pads	Clean or replace	P–18,22
	Hardening of pad surfaces or poor contact	Grind or replace	P–18,22

05U0PX-055

PARKING BRAKE LEVER

Inspection

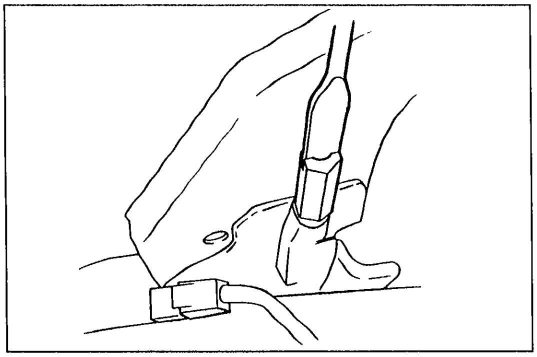


05U0PX-056

1. Depress the brake pedal several times.
2. Verify that the stroke is within specification when the parking brake lever is pulled with a force of **98 N (10 kg, 22 lb)**.

Stroke: 5—7 notches

Adjustment



05U0PX-057

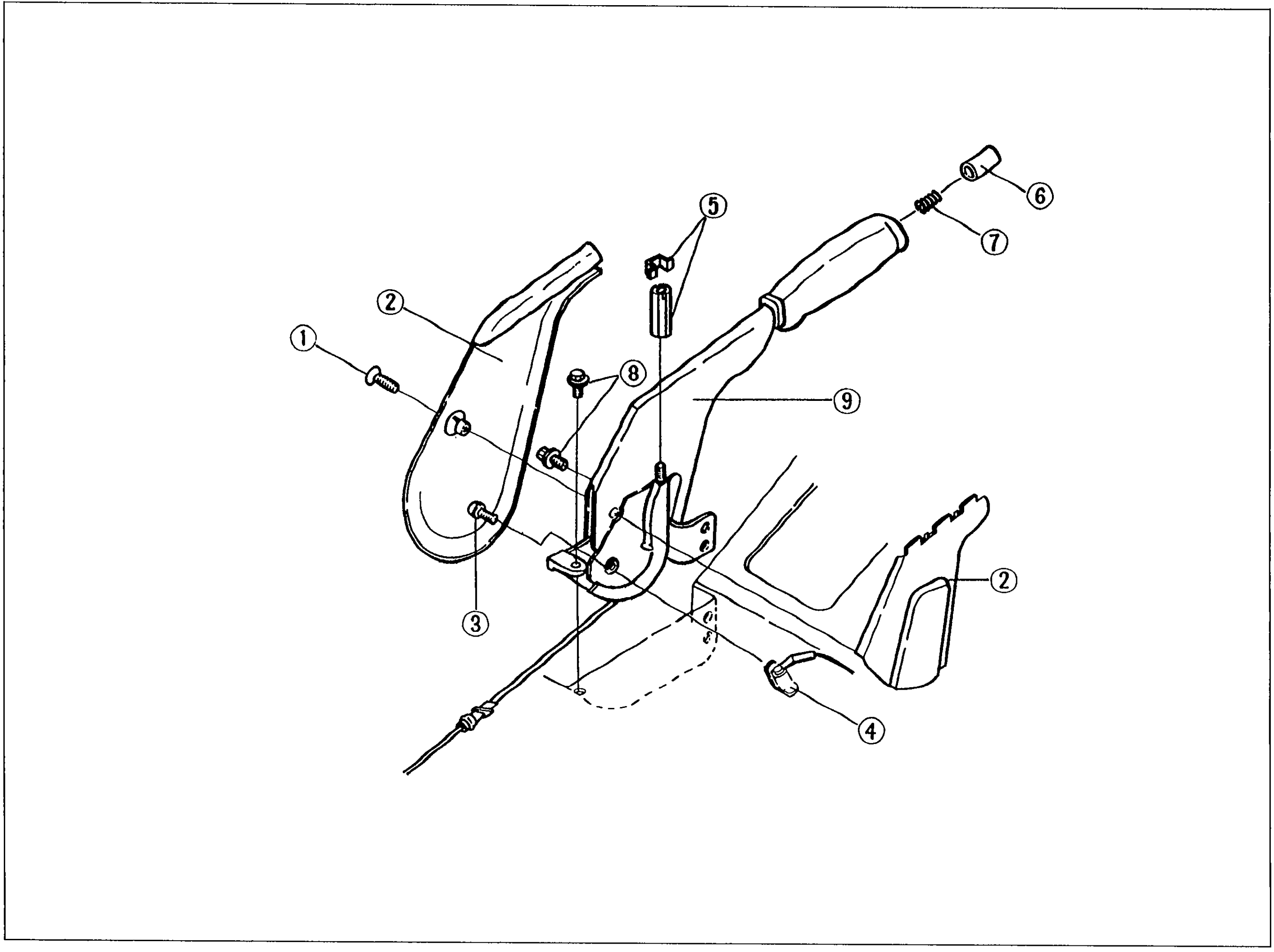
1. Jack up the rear of the vehicle until the wheels are free to turn and support it with stands.
2. Depress the brake pedal several times.
3. Turn the adjusting nut to adjust the lever stroke.
4. Check that the parking brake warning light illuminates when the brake lever is pulled one notch.

Caution
- **Verify that the brakes do not drag.**

5. Lower the vehicle.

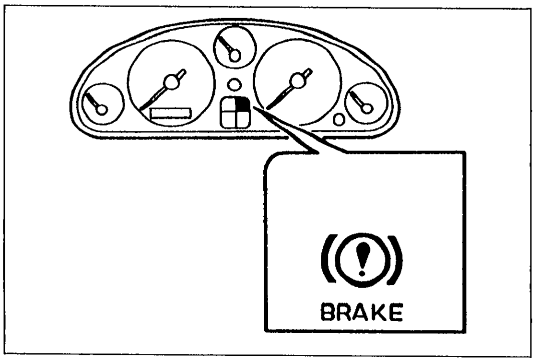
Removal / Inspection / Installation

1. Block the wheels firmly.
2. Release the parking brake.
3. Remove in the order shown in the figure.
4. Inspect all parts and repair or replace as necessary.
5. Install in the reverse order of removal, referring to **Installation Note**.
6. After installation:
   Adjust the parking lever stroke. (Refer to page P–27.)



05U0PX-058

1. Screw
2. Cover
3. Bolt
4. Parking brake switch
   Installation.................................. page P–28
5. Adjusting nut and clip
6. Cap
7. Spring
   Inspect for weakness
8. Bolt
9. Parking brake lever
   Inspect for damage and cracks



9MU0PX-110

Installation note

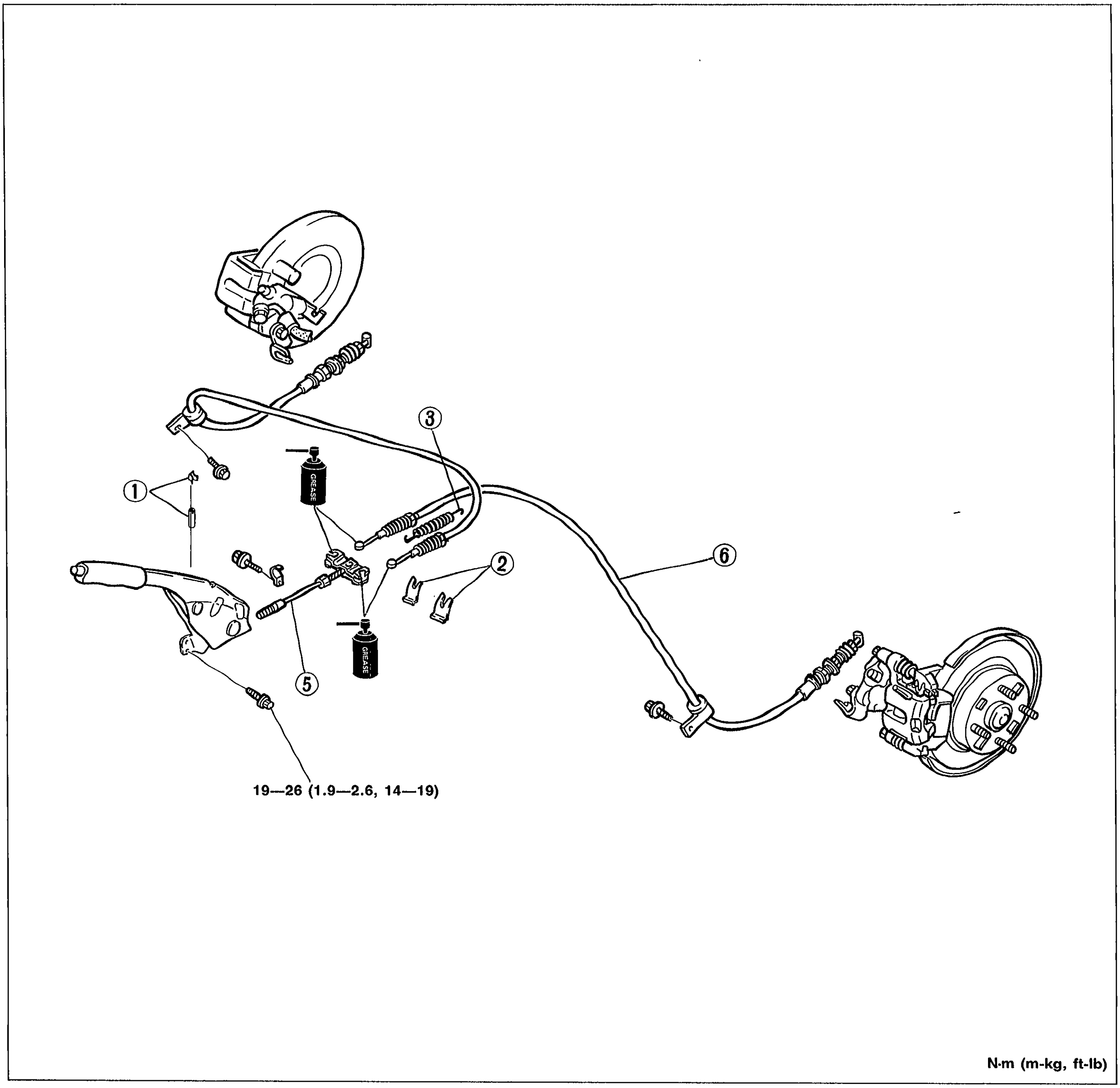
Parking brake switch

1. Install the parking brake switch so that it contacts the parking brake lever when the lever is fully released.
2. Turn the ignition switch ON, and check that the parking brake warning lamp illuminates with the lever pulled one notch.

PARKING BRAKE CABLE

Removal / Inspection / Installation

1. Block the wheels firmly.
2. Release the parking brake.
3. Remove the parking brake lever.
4. Jack up the vehicle and support it with safety stands.
5. Remove the parking brake cable in the order shown in the figure.
6. Install in the reverse order of removal.
7. After installation:
   (1) Adjust the parking brake lever stroke.
   (2) Depress the brake pedal a few times.
   (3) Verify that the rear brakes do not drag while the wheels are rotated by hand.



05U0PX-059

1. Adjusting nut and clip
2. Clip
3. Spring
   Inspect for weakness
4. Front cable
   Inspect for damage
5. Rear cable
   Inspect for damage

WHEELS AND TIRES

OUTLINE .... Q– 2
  SPECIFICATIONS .... Q– 2
TROUBLESHOOTING GUIDE .... Q– 2
WHEELS AND TIRES .... Q– 3
  SPECIAL NOTES ABOUT WHEELS
    AND TIRES .... Q– 3
  NOTES REGARDING TIRE REPLACEMENT. Q– 3
  INSPECTION / ADJUSTMENT .... Q– 3
  REMOVAL / INSTALLATION .... Q– 4
  TIRE ROTATION .... Q– 4
  WHEEL BALANCE ADJUSTMENT .... Q– 5

05U0QX-001

OUTLINE

SPECIFICATIONS

Item	Type	Standard	Temporary spare
Wheels	Size	14 x 5 1/2-JJ	14 x 4T
	Offset mm (in)	45 (1.77)	
	Pitch circle diameter mm (in)	100 (3.94)	
	Material	Aluminum Alloy	Steel
Tires	Size	185/60R14 82H	T115/70D14
	Air pressure kPa (kgf/cm², psi)	177 (1.8, 26)	412 (4.2, 60)

05U0QX-002

TROUBLESHOOTING GUIDE

Problem	Possible Cause	Action	Page
Excessive or irregular tire wear	Refer to page Q– 4 for details.		
Premature tire wear	Incorrect tire pressure	Adjust	Q– 3
Tire squeal	Incorrect tire pressure Tire deterioration	Adjust Replace	Q– 3 —
Road noise or body vibration	Insufficient tire pressure Unbalanced wheel(s) Deformed wheel(s) or tire(s) Irregular tire wear	Adjust Adjust Repair or replace Replace	Q– 3 Q– 5 — —
Shake (Steering wheel vibrates up/down)	Excessive tire and wheel runout Loose lug nuts Unbalanced wheel(s) Cracked or worn engine mount rubber Cracked or worn transmission mount rubber	Replace Tighten Adjust or replace Replace Replace	— Q– 4 Q– 5 Sections B1,B2 Sections K1,K2
Shimmy (Steering wheel vibrates left/right)	Cracked or worn steering gear mount rubber Loose steering gear mounting bolts Stuck or damaged steering ball joint Excessive tire and wheel runout Loose lug nuts Unbalanced wheel(s) Insufficient tire pressure Unevenly worn tires Malfunction of shock absorber Loose shock absorber mounting bolts Struck or damaged lower arm ball joint Cracked or worn suspension bushings Damaged or worn front wheel bearing Impropery adjusted front wheel alignment	Replace Tighten Replace Replace Tighten Adjust or replace Adjust Replace Replace Tighten Replace Replace Replace Adjust	Section N Section N Section N — Q– 4 Q– 5 Q– 3 — Section R Section R Section R Section R Section M Section R
Uneven (one-sided) braking	Unequal tire pressures	Adjust	Q– 3
Steering wheel doesn't return properly or pulls to either left or right	Incorrect tire pressure Irregular tire wear (left/right) Unequal tire pressures Different types or brands of tires mixed (left/right) Loose lug nuts	Adjust Replace Adjust Replace Tighten	Q– 3 — Q– 3 — Q– 4
General driving instability	Unequal tire pressures Damaged or unbalanced wheel(s) Loose lug nuts	Adjust Replace or adjust Tighten	Q– 3 Q– 5 Q– 4
Excessive steering wheel play	Loose lug nuts	Tighten	Q– 4

05U0QX-003

WHEELS AND TIRES

SPECIAL NOTES ABOUT WHEELS AND TIRES

1. Do not use wheels or tires other than the specified types.
2. Aluminum wheels are easily scratched. When washing them, use a soft cloth, never a wire brush. If the vehicle is steam cleaned, do not allow boiling water to contact the wheels.
3. If alkaline compounds (such as saltwater or road salts) get on aluminum wheels, wash them as soon as possible to prevent damage. Use only a neutral detergent.

9MU0QX-004

NOTES REGARDING TIRE REPLACEMENT

Note the following points when tires are to be removed from or mounted onto the wheels.

1. Be careful not to damage the tire bead, the rim bead, or the edge of the rim.
2. Apply a soapy solution to the tire bead and the edge of the rim.
3. Use a wire brush, sandpaper, or cloth to clean and remove all rust and dirt from the rim edge and the rim bead. For aluminum wheels, use only a cloth for this purpose; never use a wire brush or sandpaper.
4. Remove pebbles, glass, nails, and other foreign items embedded in the tire tread.
5. Be sure the air valve is installed correctly.
6. After mounting a tire onto a wheel, inflate it to 250—300 kPa (2.55—3.06 kg/cm^2, 35.55—42.66 psi). Verify that the bead is seated correctly onto the rim and that there are no air leaks. Then reduce the pressure to the specified level.
7. If a tire iron is used to change a tire on an aluminum wheel, be sure to use a piece of rubber between the iron lever and the wheel to avoid damage to the wheel. Work should be done on a rubber mat, not on a hard or rough surface.

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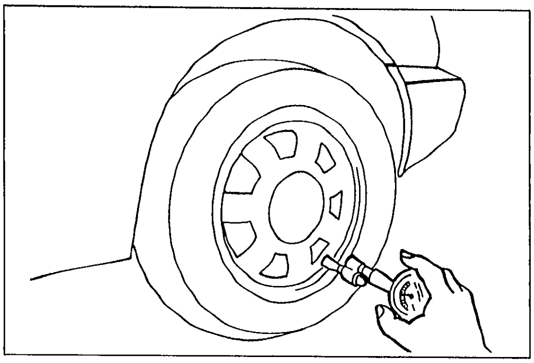


05U0QX-005

INSPECTION / ADJUSTMENT

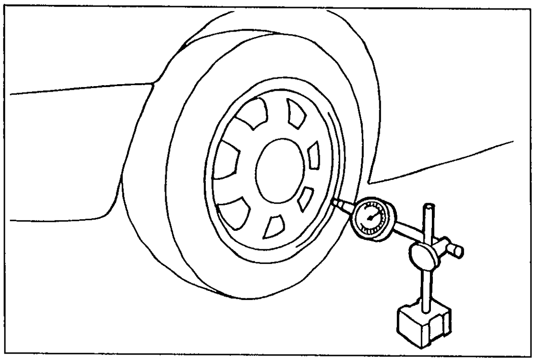
Check the following and adjust or replace as necessary.

1. Air pressure.
   Check the air pressure of all tires, including the spare tire, with an air pressure gauge.

Air pressure:
Standard tires 177 kPa (1.8 kgf/cm^2, 26 psi)
Temporary spare tires 412 kPa (4.2 kgf/cm^2, 60 psi)

Caution

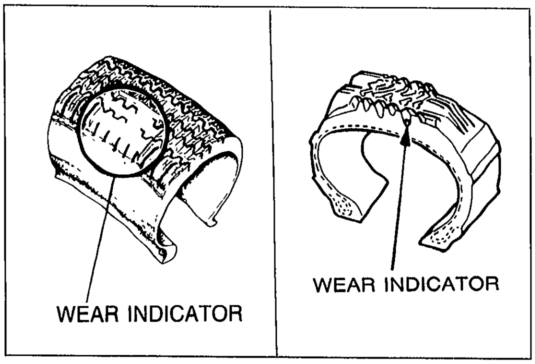
- **The air pressure must be measured when the tire is cold.**



05U0QX-006

2. Wheel runout.
   Set the probe of a dial indicator against the wheel, and turn the wheel one full revolution.

Wheel runout: Horizontal 2.0mm (0.079 in) max.
Vertical 1.5mm (0.059 in) max.



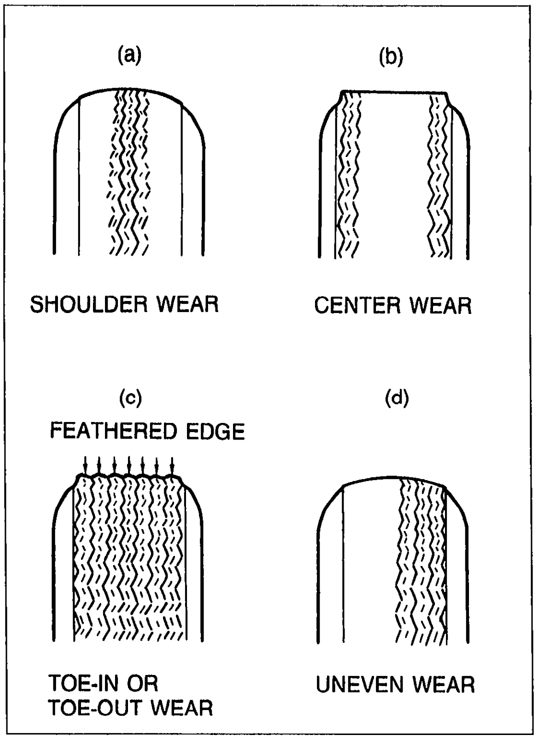
9MU0QX-008

3. Tire wear.

Specifications

Remaining tread
Ordinary tires: 1.6mm (0.063 in) min.
(Tire should be replaced if wear indicators are exposed.)

Snow tires: 50% of tread
(Tire should be replaced if wear indicators are exposed.)

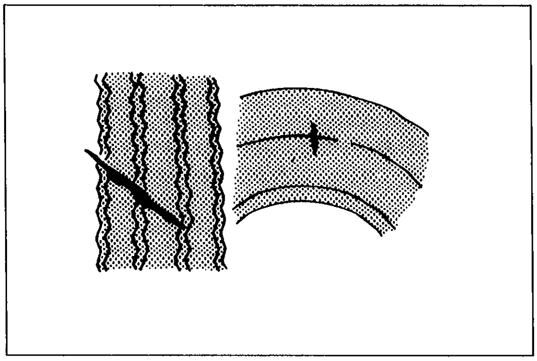


05U0QX-007

Troubleshooting guide

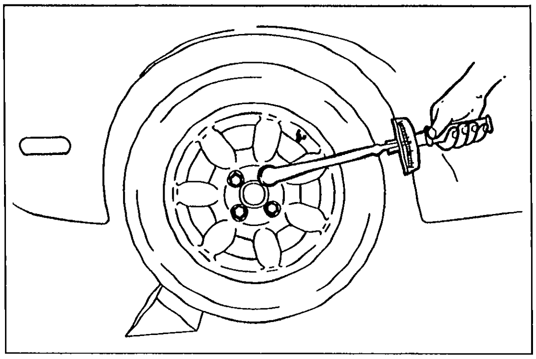
Abnormal tire wear patterns shown in the illustration can occur. Refer to the chart for the possible causes and actions.

	Possible cause	Action
(a)	• Underinflation (both sides worn) • Incorrect camber (one side worn) • Hard cornering • Lack of rotation	• Measure and adjust pressure • Repair or replace suspension parts • Reduce speed • Rotate tires
(b)	• Overinflation • Lack of rotation	• Measure and adjust pressure • Rotate tires
(c)	• Incorrect toe-in	• Adjust toe-in
(d)	• Incorrect camber or caster • Malfunctioning suspension • Unbalanced wheel • Out-of-round brake drum or disc • Other mechanical conditions • Lack of rotation	• Repair or replace suspension parts • Repair or replace • Balance or replace • Correct or replace • Correct or replace • Rotate tires



05U0QX-008

4. Cracks, damage, and foreign matter (such as metal pieces, nails, and stones) in the tire and cracks, deformation, and damage to the wheel.
5. Loose wheel lug nut(s).
6. Air leaking from valve stem.



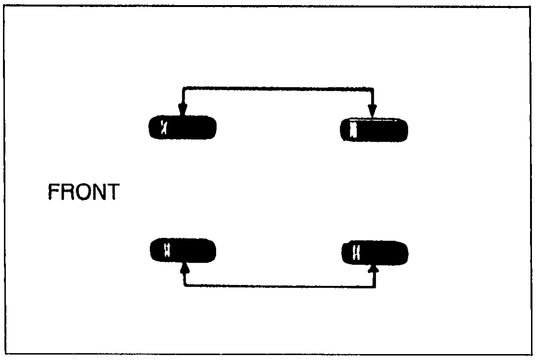
05U0QX-009

REMOVAL / INSTALLATION

Tighten the lug nuts to the specified torque in a crisscross fashion.

Tightening torque:
88—118 N·m (9—12 m-kg, 65—87 ft-lb)

Caution
- **The wheel-to-hub contact surfaces must be clean.**
- **Never apply oil to the nuts, bolts, or wheels, which cause looseness or seizure of the lug nuts.**



05U0QX-010

TIRE ROTATION

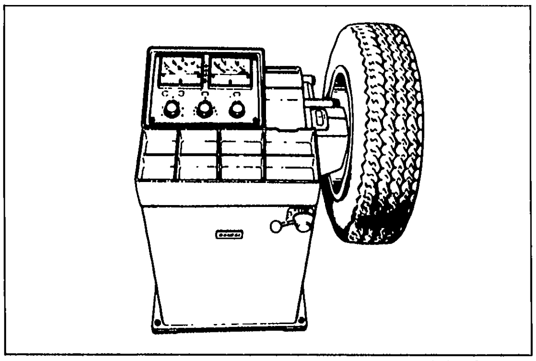
To prolong tire life and assure uniform tire wear, rotate the tires every 6,000 km (3,750 miles), sooner if irregular wear develops.

Caution
- **Do not include "TEMPORARY USE ONLY" spare tire in rotation.**
- **After rotating the tires, adjust each tire to the specified air pressure. (Refer to page Q–3.)**

WHEEL BALANCE ADJUSTMENT

If a wheel becomes unbalanced or if a tire is replaced or repaired, the wheel must be rebalanced to within specification.

Maximum unbalance (at rim edge): 10 g (0.35 oz)



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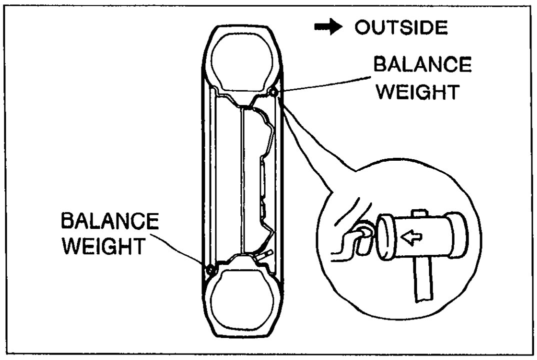

05U0QX-011

Caution

- **Do not use more than two balance weights on the inner or outer side of the wheel. if the total weight exceeds 100 g (3.5 oz), rebalance after moving the tire around on the rim.**
- **Attach the balance weights tightly so that they do not protrude more than 3mm (0.12 in) beyond the wheel edge.**
- **Select suitable balance weights for aluminum alloy wheels.**

SUSPENSION

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  SPECIFICATIONS .... R– 4
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05U0RX-001

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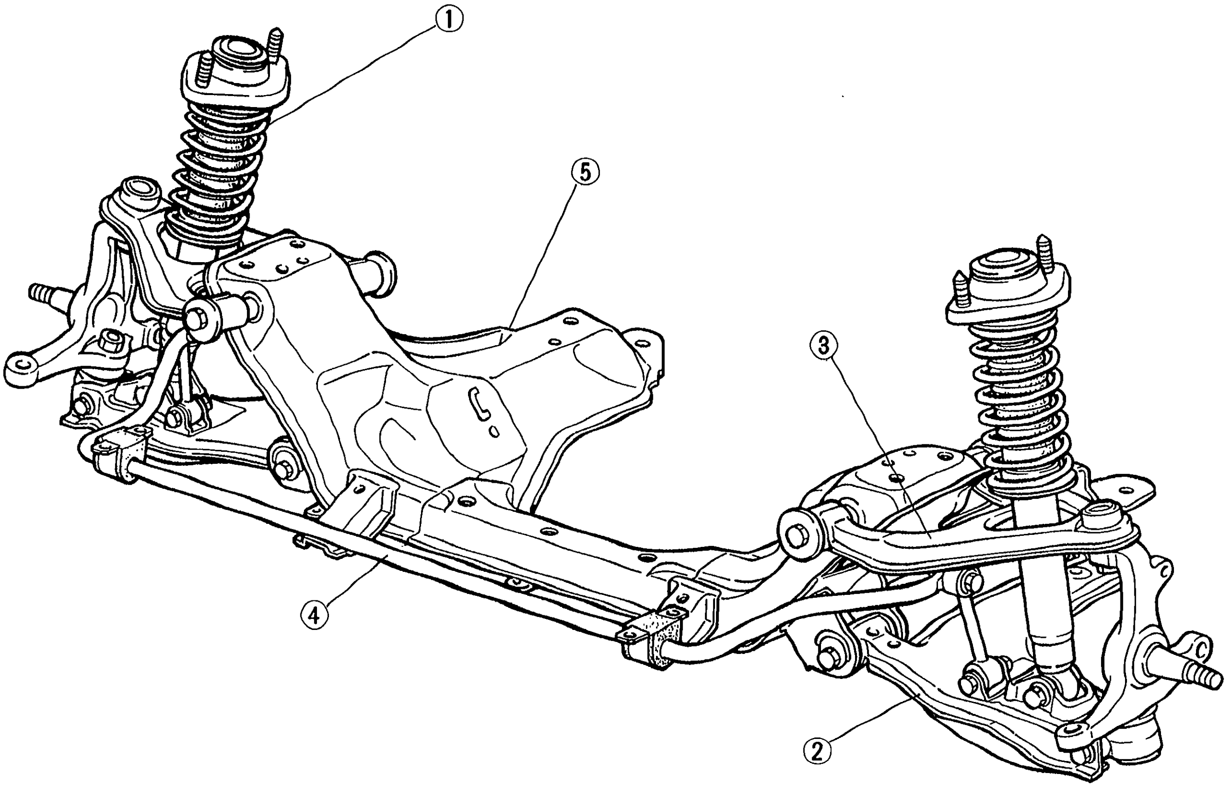
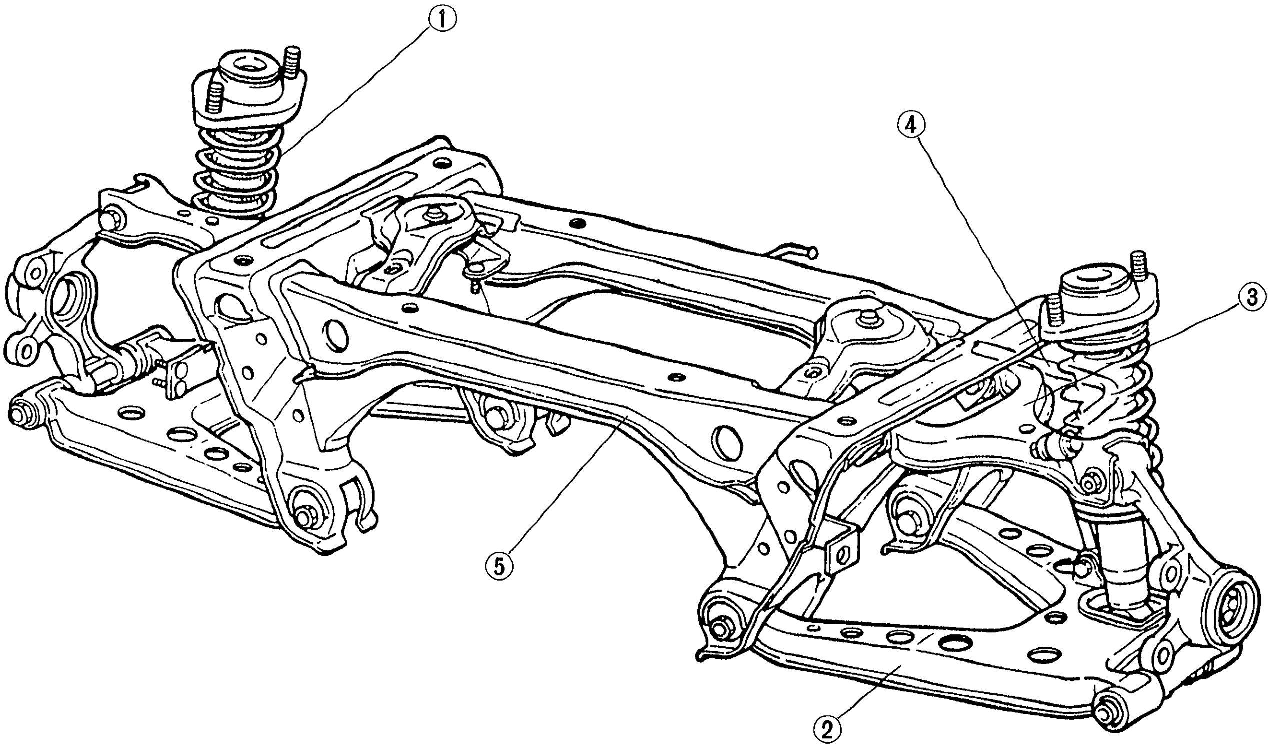
FRONT SUSPENSION



05U0RX-002

1. Shock absorber and spring
    Removal / Installation.................. page R–12
    Disassembly / Inspection / Assembly................................. page R–13
2. Lower arm
    Removal / Inspection / Installation page R–15
3. Upper arm
    Removal / Inspection / Installation page R–17
4. Stabilizer
    Removal / Inspection / Installation page R–19
5. Crossmember
    Removal / Inspection / Installation page R–20

REAR SUSPENSION



05U0RX-003

1. Shock absorber and spring
   Removal / Installation .... page R–22
   Disassembly / Inspection / Assembly .... page R–13
2. Lower arm
   Removal / Inspection / Installation page R–23
3. Upper arm
   Removal / Inspection / Installation page R–24
4. Stabilizer
   Removal / Inspection / Installation page R–25
5. Crossmember
   Removal / Inspection / Installation page R–26

OUTLINE

SPECIFICATIONS

Front Suspension

Item			Specifications
Suspension type			Double-wishbone
Stabilizer	Type		Torsion bar
	Diameter mm (in)		19 (0.75)
Shock absorber			Cylindrical double acting, low-pressure-gas charged
Coil spring	Identification mark color		Red
	Wire diameter		10.8 (0.43)
	Coil inner diameter		83 (3.27)
	Free length mm (in)		282.5 (11.12)
	Coil number		5.91
Front wheel alignment (Unladed*1)	Total toe-in	mm (in)	3 ± 3 (0.12 ± 0.12)
		degree	0°18' ± 18'
	Maximum steering angle	Inner	37° 23' ± 2°
		Outer	32° 32' ± 2°
	Camber angle		0°24 ± 45'*2
	Caster angle		4°30' ± 45'
	Kingpin angle		11°20'

05U0RX-004

Rear Suspension

Item			Specifications
Suspension type			Double-wishbone
Stabilizer	Type		Torsion bar
	Diameter mm (in)		12 (0.47)
Shock absorber			Cylindrical double acting, low-pressure-gas charged
Coil springs	Identification mark color		Blue
	Wire diameter mm (in)		10.1 (0.40)
	Coil inner diameter mm (in)		83 (3.27)
	Free length mm (in)		339.5 (13.37)
	Coil number		7.68
Rear wheel alignment (Unladed*1)	Total toe-in	mm (in)	3 ± 3 (0.12 ± 0.12)
		degree	0°18' ± 18'
	Camber angle		−0°43' ± 30'

05U0RX-005

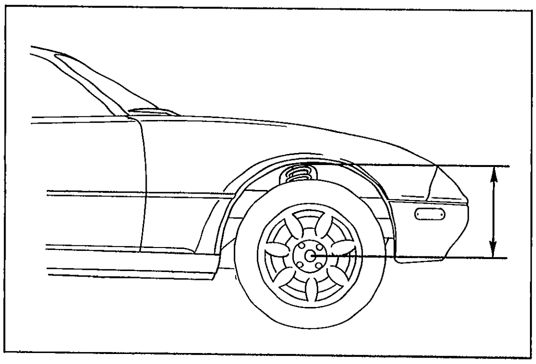
*1 Fuel tank full; radiator coolant and engine oil at specified levels; spare tire, jack, and tools in designated positions.
*2 Difference between left and right must not exceed 1°.

TROUBLESHOOTING GUIDE

Problem	Possible cause	Action	Page
General instability	Weak coil spring	Replace	R–13
	Malfunction of shock absorber	Replace	R–12,22
	Worn or damaged stabilizer and/or suspension arm bushings	Replace	R–16,18,19 23,24,25 Section M
	Worn or damaged upper or lower arm ball joint	Replace	R–15,17
	Improperly adjusted wheel alignment	Adjust	R– 6
Body "rolls"	Weak stabilizer	Replace	R–19,25
	Worn or damaged stabilizer and/or suspension arm bushings	Replace	R–16,18,19 23,24,25 Section M
"Heavy" steering wheel operation	Insufficiently lubricated or stuck upper arm lower arm ball joint	Replace	R–15,17
	Improperly adjusted wheel alignment	Adjust	R– 6
Steering wheel pulls to one side	Weak coil spring	Replace	R–13
	Worn or damaged stabilizer and/or suspension arm bushings	Replace	R–16,18,19 23,24,25
	Deformed upper or lower arm or knuckle	Replace	R–15,17 Section M
	Loose upper or lower arm bushing	Replace	R–16,18
Excessive steering wheel play	Worn or damaged upper or lower arm bushing	Replace	R–16,18
	Worn or damaged upper or lower arm ball joint	Replace	R–15,17
Body leans	Weak coil spring	Replace	R–13
	Weak stabilizer and/or suspension arm bushings	Replace	R–16,18,19 23,24,25 Section M
Abnormal noise from suspension system	Loose mounting component	Tighten	—
	Poorly lubricated or worn upper or lower arm ball joint	Replace	R–15,17
	Malfunction of shock absorber	Replace	R–12,22
	Worn or damaged stabilizer and/or suspension arm bushings	Replace	R–16,18,19 23,24,25 Section M
Shake (Steering wheel vibrates up/down)	Excessive tire or wheel runout	Replace	—
	Loose lug nuts	Tighten	Section Q
	Unbalanced wheel(s)	Adjust or replace	Section Q
	Cracked or worn engine mounting rubber	Replace	Section B
	Cracked or worn transmission mounting rubber	Replace	Section J
Shimmy (Steering wheel vibrates left/right)	Cracked or worn steering gear mounting rubber	Replace	Section N
	Loose steering gear mounting bolts	Tighten	Section N
	Stuck or damaged steering ball joint	Replace	Section N
	Excessive tire or wheel runout	Replace	—
	Loose lug nuts	Tighten	Section Q
	Unbalanced wheel(s)	Adjust or replace	Section Q
	Insufficient tire pressure	Adjust	Section Q
	Unevenly worn tires	Replace	Section Q
	Malfunction of shock absorber	Replace	R–12,22
	Loose shock absorber mounting bolts	Tighten	R–12,22
	Stuck or damaged upper or lower arm ball joint	Replace	R–15,17
	Cracked or worn suspension bushings	Replace	R–16,18,19
	Damaged or worn front wheel bearing	Replace	Section M
	Improperly adjusted front wheel alignment	Adjust	R– 6

05U0RX-006

WHEEL ALIGNMENT



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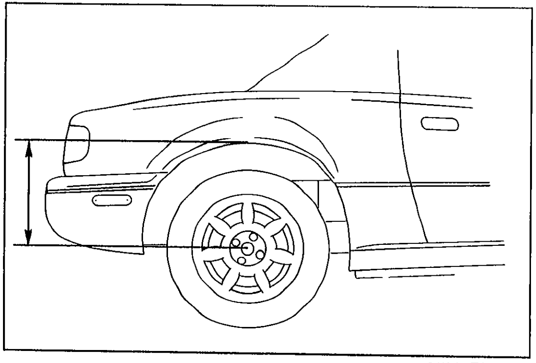


05U0RX-008

PRE-INSPECTION

1. Check the tire inflations, and adjust to the recommended pressure if necessary.
2. Inspect the front wheel bearing paly and correct if necessary.
3. Inspect the wheel and tire runouts.
4. Inspect the ball joints and steering linkage for excessive looseness.
5. The vehicle must be on level ground and carry no luggage or passengers.

6. Measure the height from the center of the wheel to the fender brim. The difference between left and right must be not exceed **10mm (0.31 in)**, and the difference between front and rear must be **20mm ± 10mm (0.62 ± 0.31 in)**.

Caution
- **The proper caster and camber angle vary depending on the vehicle height. Refer to the following and to page R–9 for the specifications.**
- **Inspection and adjustment of wheel alignment must be done with the vehicle unladed*1.**

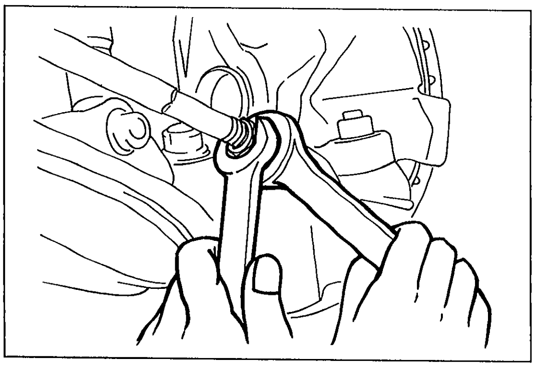
FRONT WHEEL ALIGNMENT

Specifications (Unladed*1)

Item			Specifications
Total toe-in		mm (in)	3 ± 3 (0.12 ± 0.12)
		degree	0°18' ±18'
Maximum steering angle		Inner	37°23' ± 2°
		Outer	32°32' ± 2°
Kingpin angle			11°20'
Camber angle	Height from center of wheel to fender brim mm (in)	328—337 (12.9—13.3)	−0°20' ± 45'*2
		338—347 (13.3—13.7)	0°03' ± 45'*2
		348—357 (13.7—14.1)	0°24' ± 45'*2
		358—367 (14.1—14.4)	0°44' ± 45'*2
		368—377 (14.4—14.8)	1°02' ± 45'*2
Caster angle	Height from center of wheel to fender brim mm (in)	328—337 (12.9—13.3)	5°16' ± 45'
		338—347 (13.3—13.7)	5°02' ± 45'
		348—357 (13.7—14.1)	4°49' ± 45'
		358—367 (14.1—14.4)	4°35' ± 45'
		368—377 (14.4—14.8)	4°21' ± 45'

05U0RX-009

*1 Fuel tank full; radiator coolant and engine oil at specified levels; spare tire, jack, and tools in designated positions.
*2 Difference between left and right must not exceed 1°.



05U0RX-010

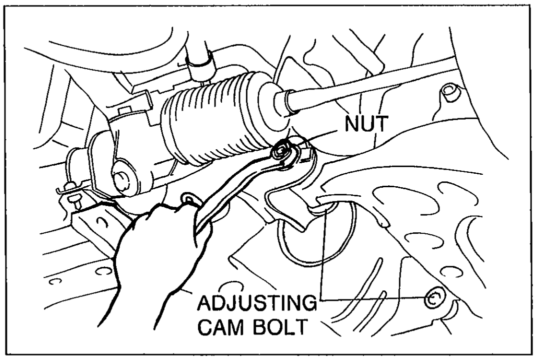
Adjustment

Maximum steering angle

1. Remove the steering gear boot clamp.
2. Loosen the tie-rod locknut.
3. Turn the tie-rod to provide the correct maximum steering angle.
4. After adjustment, tighten the locknut to the specified torque.

Tightening torque:
34—39 N·m (3.5—4.0 m-kg, 25—29 ft-lb)

5. Adjust the toe-in. (Refer to page R–8.)
6. Verify that the boot is not twisted, and install the boot clamp.



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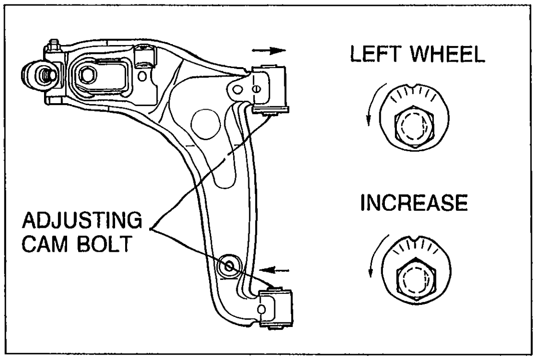

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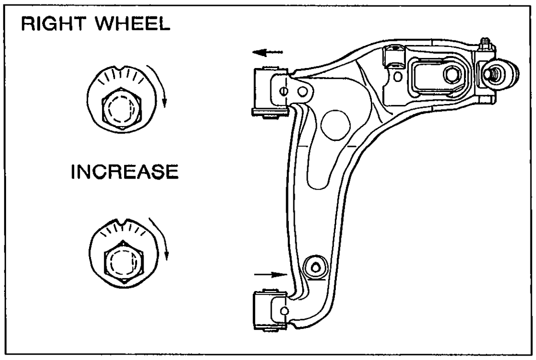


05U0RX-013

Cater

Cater is adjusted by turning the front and/or rear adjusting cam bolt at the lower arm.

Caution

- **Adjust the caster before adjusting the camber.**

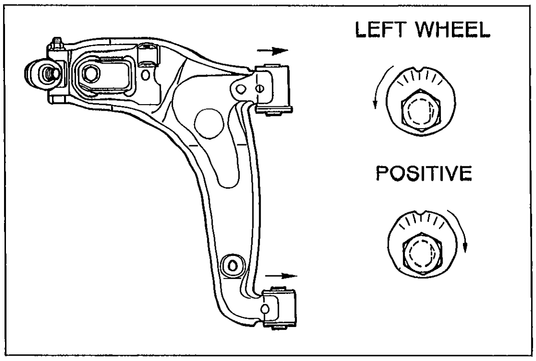
1. Loosen the front and/or rear cam nut.
2. Turn the front and/or rear adjusting cam bolt to provide the correct caster angle.

Caster	Left wheel		Right wheel	
	Front cam	Rear cam	Front cam	Rear cam
Increase	Counter-clockwise	Counter-clockwise	Clockwise	Clockwise
Decrease	Clockwise	Clockwise	Counter-clockwise	Counter-clockwise

Note

- **Turning the front cam one graduation on the scale changes the caster angle about 22' and the camber about 25'. Turning the rear cam one graduation changes the caster angle about 22' and the camber about 2'.**

3. Adjust the camber and the toe-in.



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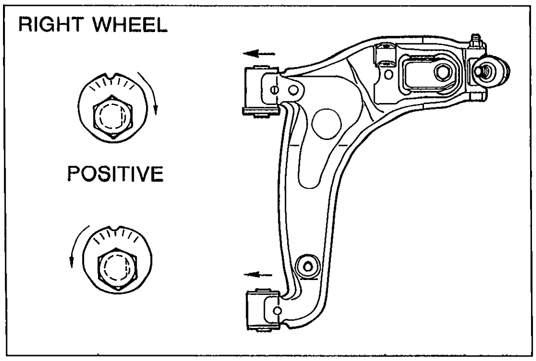


05U0RX-015

Camber

Camber is adjusted by turning the front and rear adjusting cam bolts at the lower arm.

Caution

- **Adjust the camber after adjusting the caster.**

1. Loosen the front and rear cam nuts.
2. Turn the front and rear adjusting cam bolts the same amount in the opposite direction to provide the correct camber angle.

Caster	Left wheel		Right wheel	
	Front cam	Rear cam	Front cam	Rear cam
Positive	Counter-clockwise	Clockwise	Clockwise	Counter-clockwise
Negative	Clockwise	Counter-clockwise	Counter-clockwise	Clockwise

Note

- **Turning the front cam one graduation changes the camber about 25' and the caster about 22'. Turning the rear cam one graduation changes the camber about 2' and the caster about 22'.**

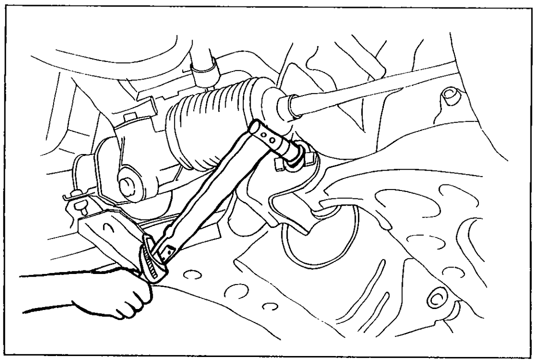
Note

- **If the cam cannot be turned far enough to make the adjustment, begin again at adjustment of the caster using the other cam.**

3. Tighten the nuts.

Tightening torque:
73—95 N·m (7.4—9.7 m-kg, 54—70 ft-lb)

4. Adjust the toe-in.



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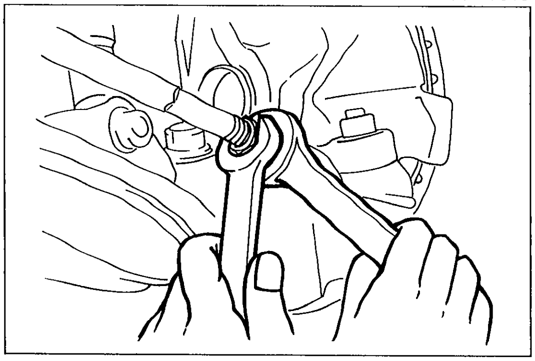


05U0RX-017

Toe-in

1. Remove the steering gear boot clamp.
2. Loosen the left and right tie-rod locknuts, and turn the tie-rods by the same amount.

Caution

- **The left and right tie-rods are both right threaded. To increase the toe-in, turn the right tie-rod toward the front of the vehicle, and turn the left tie-rod by the same amount toward the rear.**
- **One turn of the tie-rod (one side) changes the toe-in by about 7mm (0.28 in).**
- **Adjust the toe-in after adjusting the steering angle.**

3. Tighten the tie-rod locknuts to the specified torque.

Tightening torque:
34—39 N·m (3.5—4.0 m-kg, 25—29 ft-lb)

4. Verify that the boot is not twisted, and install the boot clamp.

REAR WHEEL ALIGNMENT

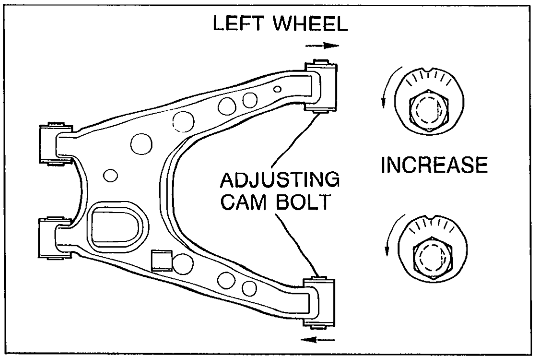
Specifications (Unladed*)

Item			Specifications
Total toe-in		mm (in)	3 ± 3 (0.12 ± 0.12)
		degree	0°18' ±18'
Camber angle	Height from center of wheel to fender brim mm (in)	346—355 (13.6—14.0)	−1°08' ± 30'
		356—365 (14.0—14.4)	−0°54' ± 30'
		366—375 (14.4—14.8)	−0°43' ± 30'
		376—385 (14.8—15.2)	−0°35' ± 30'
		386—395 (15.2—15.6)	−0°30' ± 30'

* Fuel tank full; radiator coolant and engine oil at specified levels; spare tire, jack, and tools in designated positions. 05U0RX-018

Toe-in

Toe-in is adjusted by turning the front and/or rear adjusting cam bolt at the lower arm.



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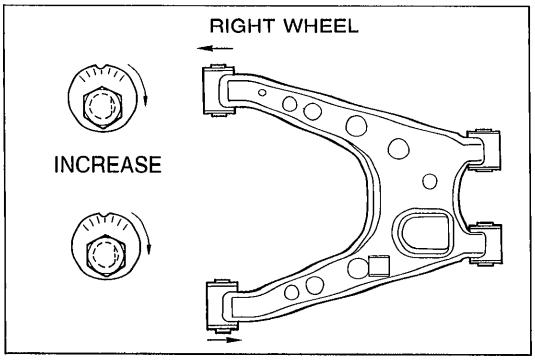


05U0RX-020

Caution

- **Adjust the toe-in before adjusting the camber.**

1. Loosen the front and/or rear cam nut.
2. Turn the front and/or rear adjusting cam bolt to provide the correct toe-in.

Toe-in	Left wheel		Right wheel	
	Front cam	Rear cam	Front cam	Rear cam
Increase	Counter-clockwise	Counter-clockwise	Clockwise	Clockwise
Decrease	Clockwise	Clockwise	Counter-clockwise	Counter-clockwise

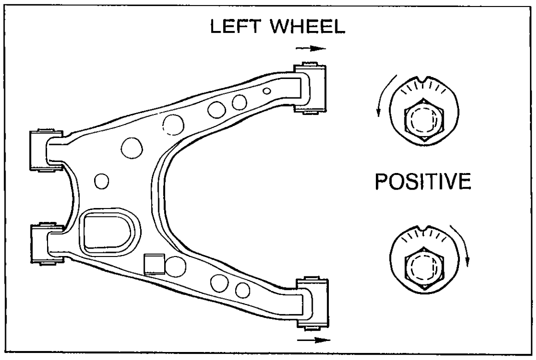
Note

- **Turning the front cam one graduation changes the toe-in about 2.8mm (0.11 in) and the camber about 15'. Turning the rear cam one graduation changes the toe-in about 2.8mm (0.11 in) and the camber about 6'.**

3. Adjust the camber.

Camber

Camber is adjusted by turning the front and rear cams at the lower arm.

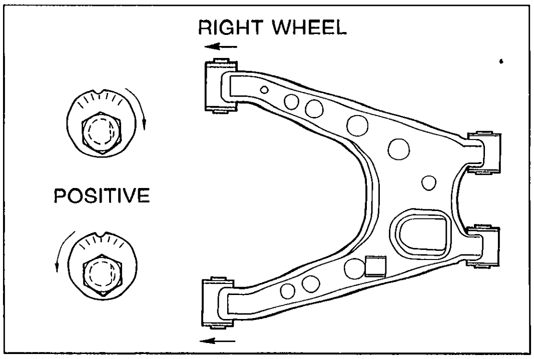


05U0RX-021

Caution

- **Adjust the camber after adjusting the toe-in.**

1. Loosen the front and rear cam nuts.
2. Turn the front and rear adjusting cam bolts the same amount in the opposite direction to provide the correct camber angle.



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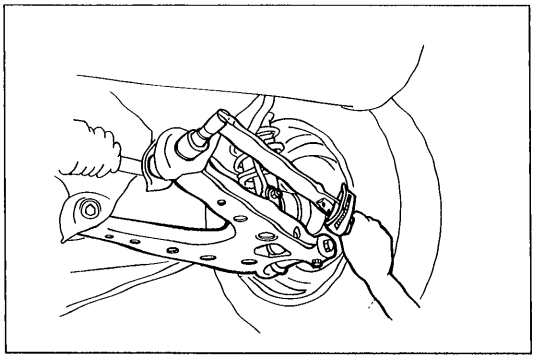


Camber	Left wheel		Right wheel	
	Front cam	Rear cam	Front cam	Rear cam
Positive	Counter-clockwise	Clockwise	Clockwise	Counter-clockwise
Negative	Clockwise	Counter-clockwise	Counter-clockwise	Clockwise

Note

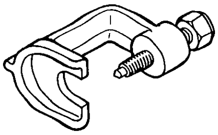
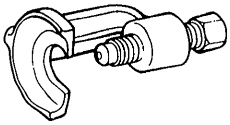
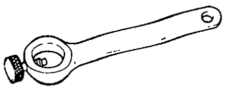
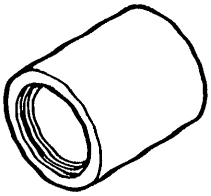
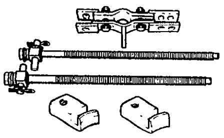
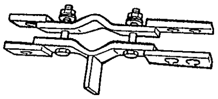
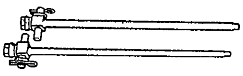
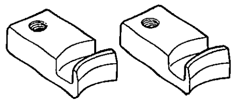
- **Turning the front cam one graduation changes the camber about 15' and the toe-in about 2.8mm (0.11 in). Turning the rear cam one graduation changes the camber about 6' and the toe-in about 2.8mm (0.11 in).**
- **If the cam cannot be turned far enough to make the adjustment, begin again at adjustment of the toe-in using the other cam.**

3. Tighten the nuts.

Tightening torque:
73—95 N·m (7.4—9.7 m-kg, 54—70 ft-lb)

FRONT SUSPENSION (DOUBLE-WISHBONE)

PREPARATION
SST

49 0727 575 Puller, socket joint 	For removal of lower arm ball joint	49 0118 850C Puller, ball joint 	For removal of upper arm ball joint
49 0180 510B Attachment, steering worm bearing preload measuring 	For inspection of upper arm ball joint	49 H028 301 Installer, dust boot 	For installation of front lower arm boot
49 G034 1A0 Compressor, coil spring 	For removal and installation of coil spring	49 G034 101 Body (Part of 49 G034 1A0) 	For removal and installation of coil spring
49 G034 102 Screw (Part of 49 G030 1A0) 	For removal and installation of coil spring	49 G034 103 Arm (Part of 49 G030 1A0) 	For removal and installation of coil spring

05U0RX-023

SHOCK ABSORBER AND SPRING

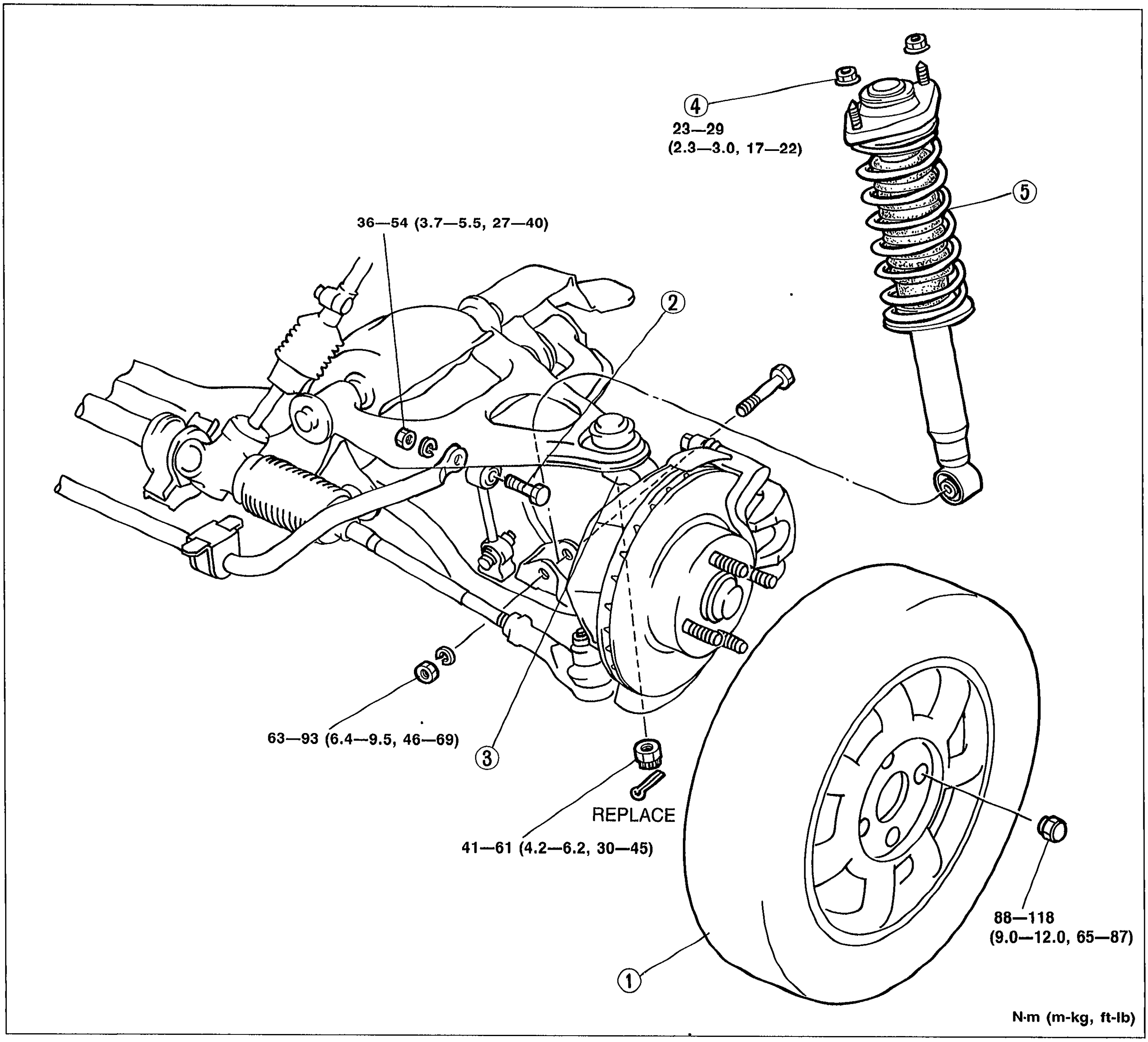
Removal / Installation

1. Jack up the front of the vehicle and support it with safety stands.
2. Remove the undercover.
3. Remove in the order shown in the figure, referring to **Removal Note**.
4. Inspect all parts and repair or replace as necessary.
5. Install in the reverse order of removal.
6. Tighten all nuts and bolts to the specified torques, referring to the figure.

Note

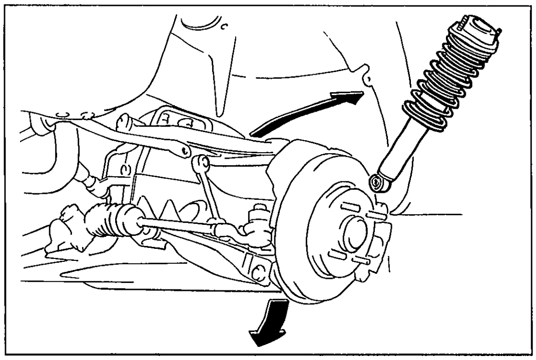
- **Loosely tighten the shock absorber, upper arm, stabilizer control link, and stabilizer bracket bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.**

7. Adjust the front wheel alignment. (Refer to page R–6.)


④
23—29
(2.3—3.0, 17—22)
⑤
36—54 (3.7—5.5, 27—40)
②
63—93 (6.4—9.5, 46—69)
③
REPLACE
41—61 (4.2—6.2, 30—45)
88—118
(9.0—12.0, 65—87)
①
N·m (m-kg, ft-lb)

05U0RX-024

1. Wheel and tire
2. Stabilizer control link bolt
3. Upper arm ball joint
   Removal Note.............................. page R–17
4. Mounting plate nut
5. Shock absorber and spring
   Removal Note.............................. page R–13
   Disassembly / Assembly............. page R–13



05U0RX-025

Removal note
Shock absorber and spring

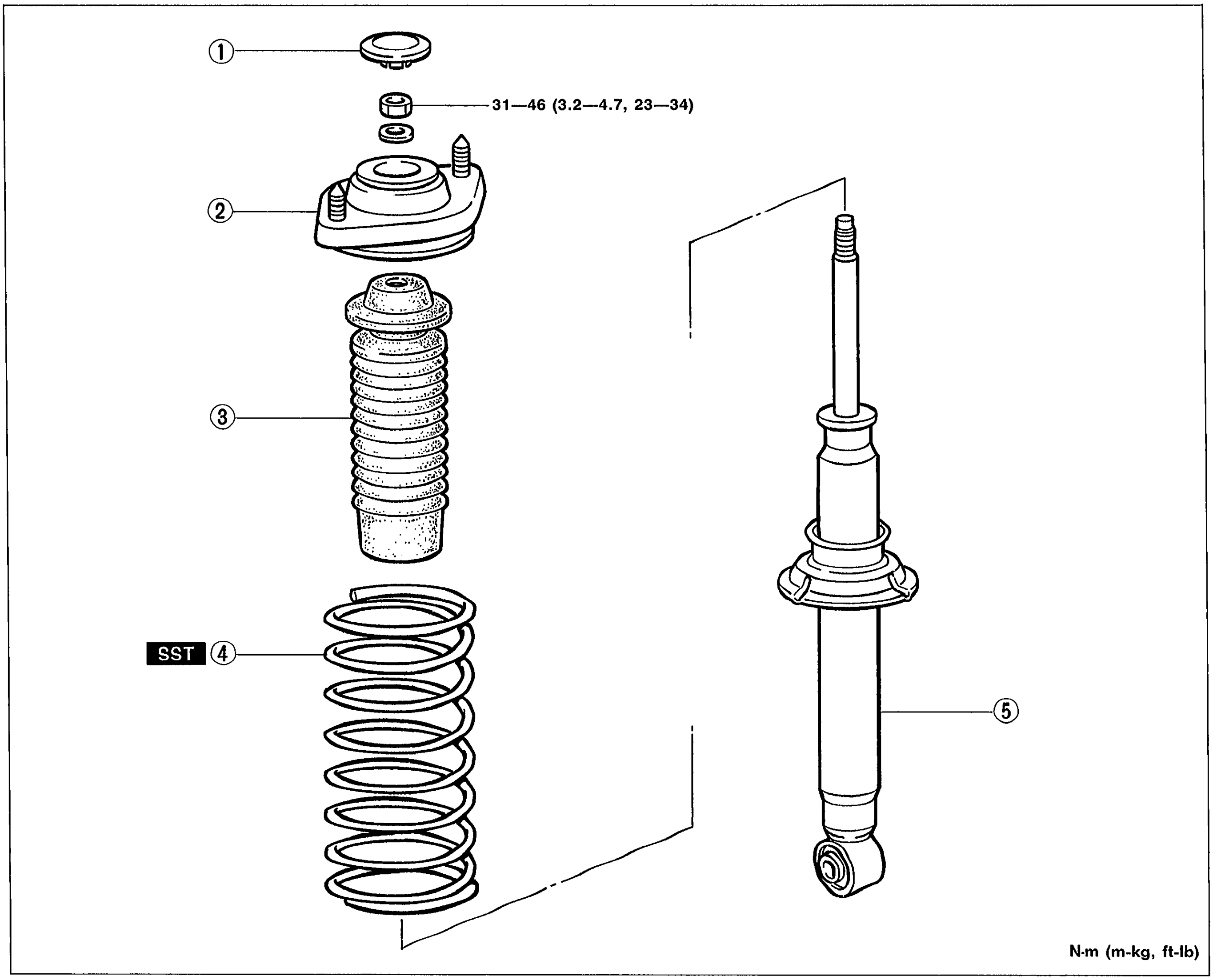
1. Loosen the lower arm bolts.
2. Lower the lower arm to remove the shock absorber.

Caution

- **Do not lower the arm excessively, which may damage the brake hose.**

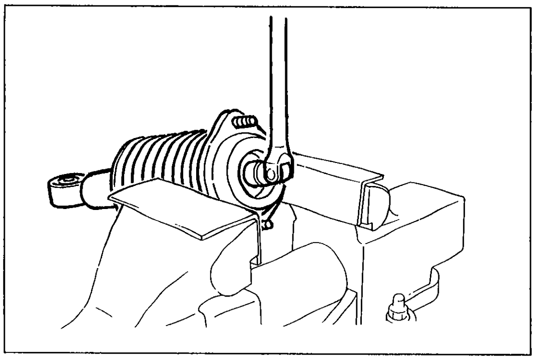
Disassembly / Inspection / Assembly

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Inspect all parts and repair or replace as necessary.
3. Assemble in the reverse order of disassembly, referring to **Assembly Note**.
4. Tighten all nuts and bolts to the specified torques, referring to the figure.



05U0RX-026

1. Cap	4. Coil spring
2. Mounting plate	Disassembly Note .... page R–14
3. Bound stopper	Assembly Note .... page R–14
Inspect for damage	5. Shock absorber
	Inspect for oil leakage and abnormal noise



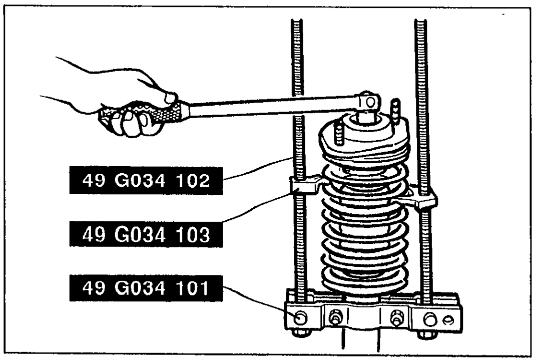
05U0RX-027

Disassembly note

Coil spring

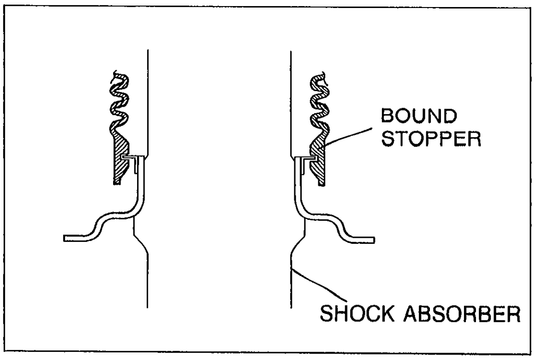
1. Loosen the piston rod upper nut several turns, but do not remove the nut.

   Caution
   - **Do not remove the nut.**
   - **Use copper or aluminum plates in the jaws of the vise.**


49 G034 102
49 G034 103
49 G034 101

05U0RX-028

2. Assemble the **SST**.
3. Compress the coil spring with the **SST**, and remove the upper nut.
4. Remove the coil spring.

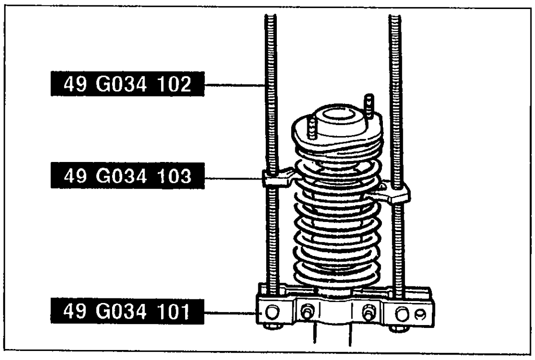

BOUND STOPPER
SHOCK ABSORBER

05U0RX-029

Assembly note

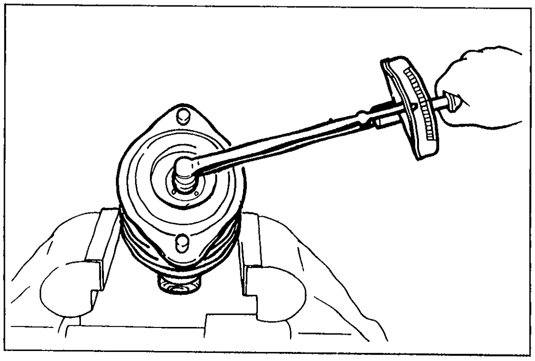
Coil spring and bound stopper

1. Set the shock absorber in a vise.
2. Install the bound stopper on the shock absorber as shown.


49 G034 102
49 G034 103
49 G034 101

05U0RX-030

3. Install the compressed coil spring (compressed with **SST**).
4. Install the mounting plate.



05U0RX-031

5. Remove the **SST**.
6. Secure the mounting plate in a vise.

   Caution
   - **Use copper or aluminum plates in the jaws of the vise.**

7. Tighten the piston rod upper nut.

   Tightening torque:
   31—46 N·m (3.2—4.7 m-kg, 23—34 ft-lb)

LOWER ARM

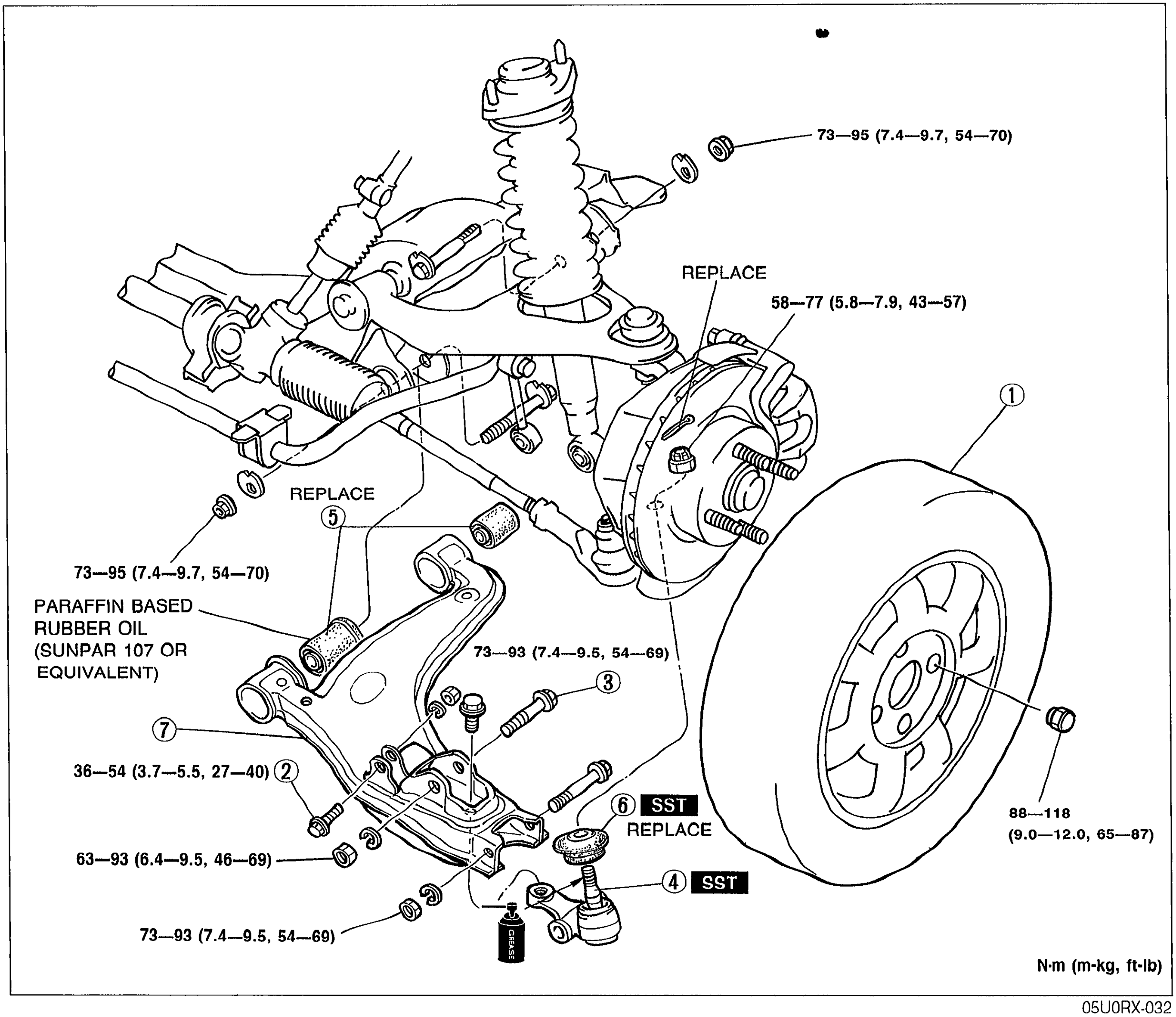
Removal / Inspection / Installation

1. Jack up the front of the vehicle and support it with safety stands.
2. Remove the undercover.
3. Remove in the order shown in the figure, referring to **Removal Note**.
4. Inspect all parts and repair or replace as necessary.
5. Install in the reverse order of removal, referring to **Installation Note**.
6. Tighten all nuts and bolts to the specified torques, referring to the figure.

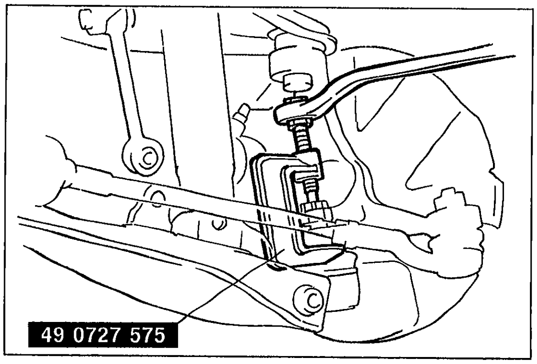
Note

- **Loosely tighten the lower arm, shock absorber, and stabilizer control link bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.**

7. Adjust the front wheel alignment. (Refer to page R–6.)


73—95 (7.4—9.7, 54—70)
REPLACE
58—77 (5.8—7.9, 43—57)
①
REPLACE
⑤
73—95 (7.4—9.7, 54—70)
PARAFFIN BASED RUBBER OIL (SUNPAR 107 OR EQUIVALENT)
73—93 (7.4—9.5, 54—69)
③
⑦
36—54 (3.7—5.5, 27—40) ②
⑥ SST
REPLACE
88—118 (9.0—12.0, 65—87)
63—93 (6.4—9.5, 46—69)
④ SST
73—93 (7.4—9.5, 54—69)
GREASE
N·m (m-kg, ft-lb)
05U0RX-032

1. Wheel and tire
2. Stabilizer control link bolt
3. Shock absorber bolt
4. Lower arm ball joint
    Removal Note............................ page R–16
    Inspection................................. page R–16
5. Lower arm bushing (front and rear)
    Inspect for deterioration and wear
6. Ball joint dust boot
    Removal Note............................ page R–16
    Installation Note......................... page R–16
7. Lower arm
    Inspect for damage and cracks

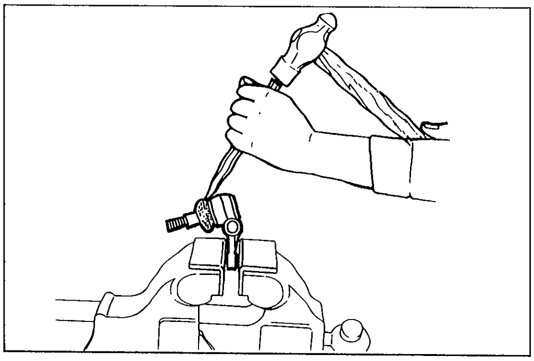


05U0RX-033

Removal note

Lower arm ball joint

Separate the ball joint from the knuckle with the **SST**.



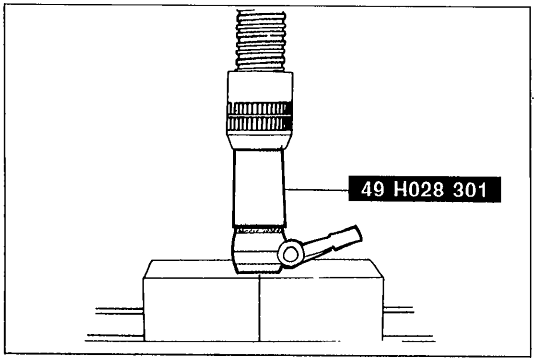
05U0RX-034

Ball joint dust boot

Remove the dust boot with a chisel.

Caution

- **Do not damage the ball joint stud.**

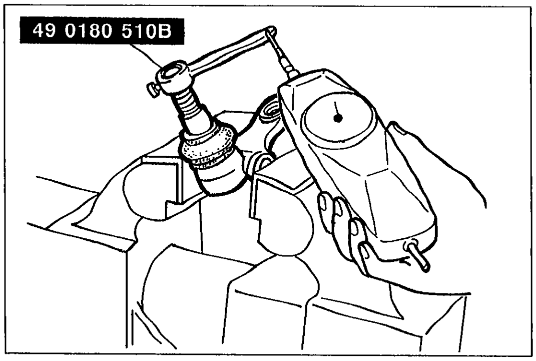


05U0RX-036

Installation note

Ball joint dust boot

1. Liberally coat the inside of the new dust boot with grease.
2. Press the dust boot onto the ball joint with the **SST**.



05U0RX-037

Inspection

Lower arm ball joint

Ball joint rotation torque

1. Shake the ball joint stud 5 times.
2. Connect the **SST** to the ball stud, and measure the rotation torque with a pull scale.

Rotation torque:
0.5—1.5 N·m (5—15 cm-kg, 4.3—13 in-lb)

Pull scale reading:
4.9—14.7 N (0.5—1.5 kg, 1.7—3.3 lb)

UPPER ARM

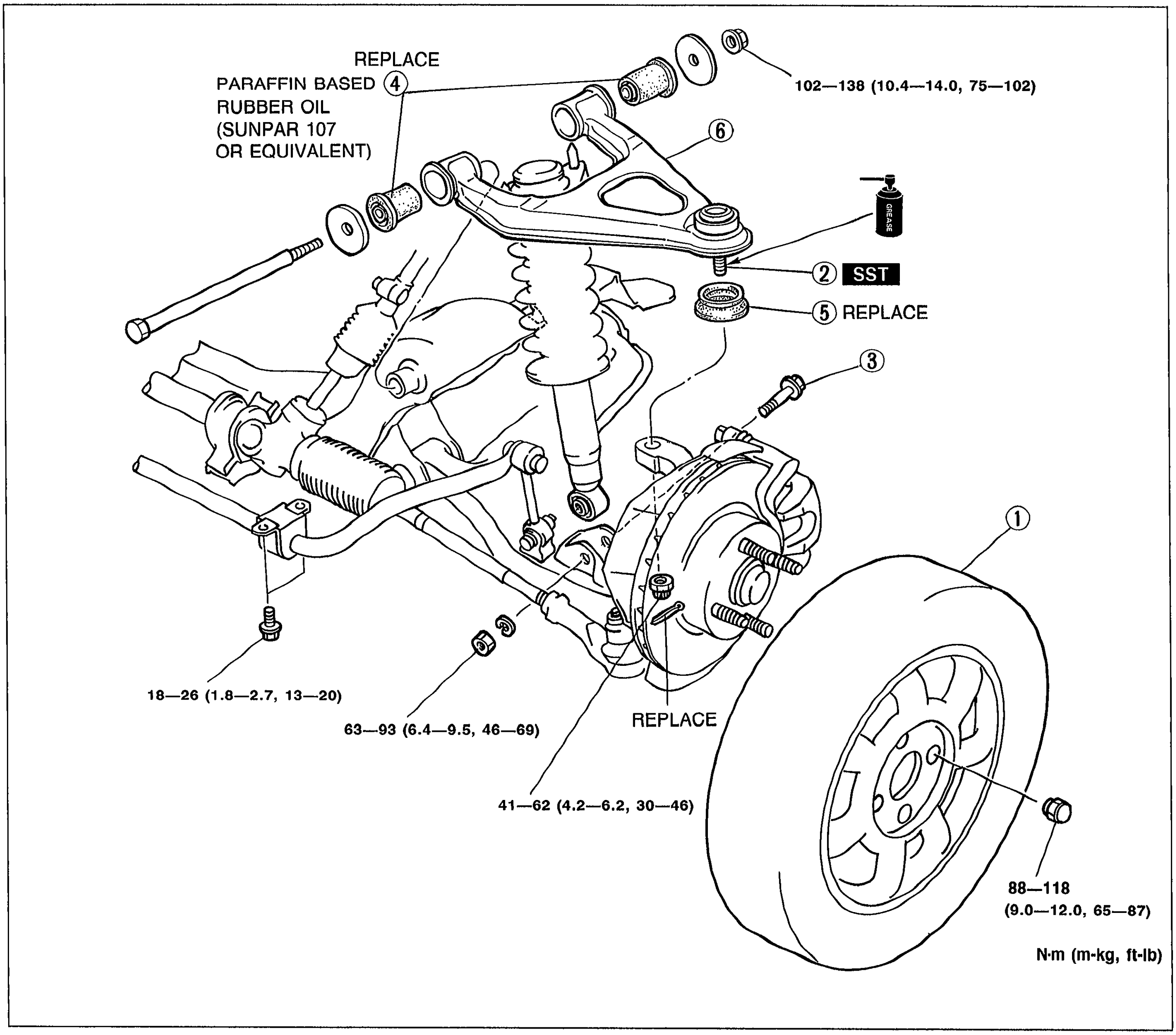
Removal / Inspection / Installation

1. Jack up the front of the vehicle and support it with safety stands.
2. Remove the undercover.
3. Remove in the order shown in the figure, referring to **Removal Note**.
4. Inspect all parts and repair or replace as necessary.
5. Install in the reverse order of removal, referring to **Installation Note**.
6. Tighten all nuts and bolts to the specified torques, referring the figure.

Note

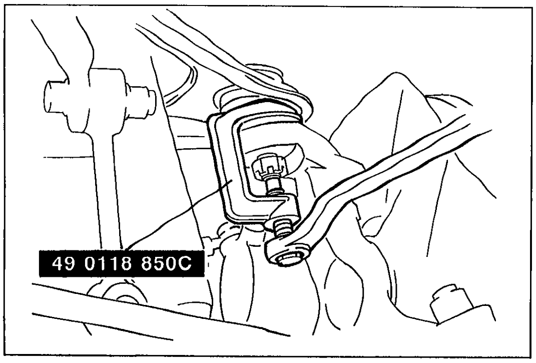
- **Loosely tighten the upper arm and shock absorber bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.**

7. Adjust the front wheel alignment. (Refer to page R–6.)


REPLACE
PARAFFIN BASED ④
RUBBER OIL
(SUNPAR 107
OR EQUIVALENT)
102—138 (10.4—14.0, 75—102)
⑥
GREASE
② SST
⑤ REPLACE
③
①
18—26 (1.8—2.7, 13—20)
63—93 (6.4—9.5, 46—69)
REPLACE
41—62 (4.2—6.2, 30—46)
88—118
(9.0—12.0, 65—87)
N·m (m-kg, ft-lb)

05U0RX-038

1. Wheel and tire
2. Upper arm ball joint
   Removal Note............................ page R–18
3. Shock absorber bolt
4. Upper arm bushing (front and rear)
   Inspect for deterioration and damage
5. Ball joint dust boot
   Removal Note............................ page R–18
   Installation Note.......................... page R–18
6. Upper arm
   Inspect for damage and cracks

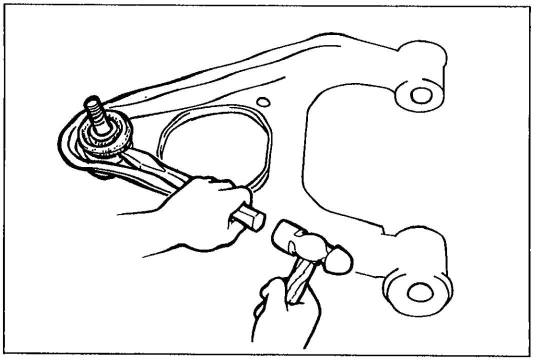


05U0RX-039

Removal note

Upper arm ball joint

Separate the upper arm ball joint from the knuckle with the **SST**.



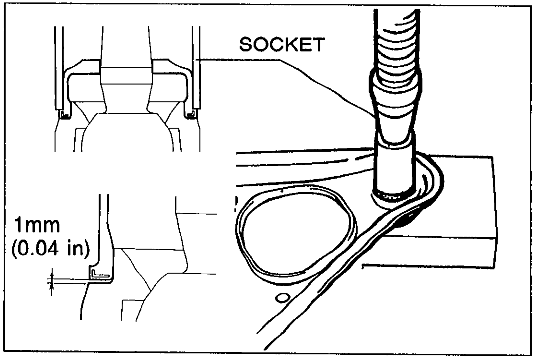
05U0RX-040

Ball joint dust boot

Remove the dust boot with a chisel.

Caution

- **Do not damage the ball joint stud.**



05U0RX-042

Installation note

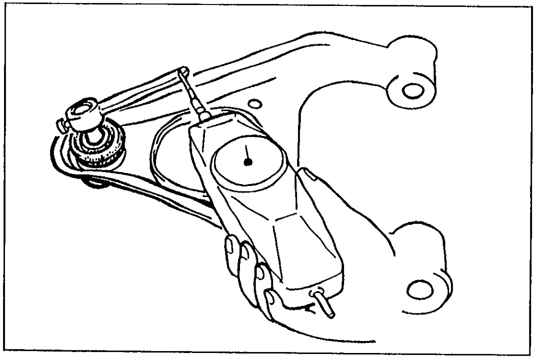
Ball joint dust boot

1. Press the dust boot on with a **30mm (1 1/8 in)** socket until the dust boot contacts the seat.

Caution

- **Install the dust boot squarely and do not press excessively; the inner metal ring will be deformed if not done correctly.**

2. Verify that the clearance between the boot and the seat is less than **1mm (0.04 in)**.
3. Shake the ball joint stud several times to make sure there is no grease leakage.



05U0RX-043

Inspection

Upper arm ball joint

Ball joint rotation torque

1. Shake the ball joint stud 5 times.
2. Connect the **SST** to the ball stud, and measure the rotation torque with a pull scale.

Rotation torque:
0.4—1.2 N·m (4—12 cm-kg, 3.5—10.0 in-lb)

Pull scale reading:
3.9—11.8 N (0.4—1.2 kg, 2.9—8.8 lb)

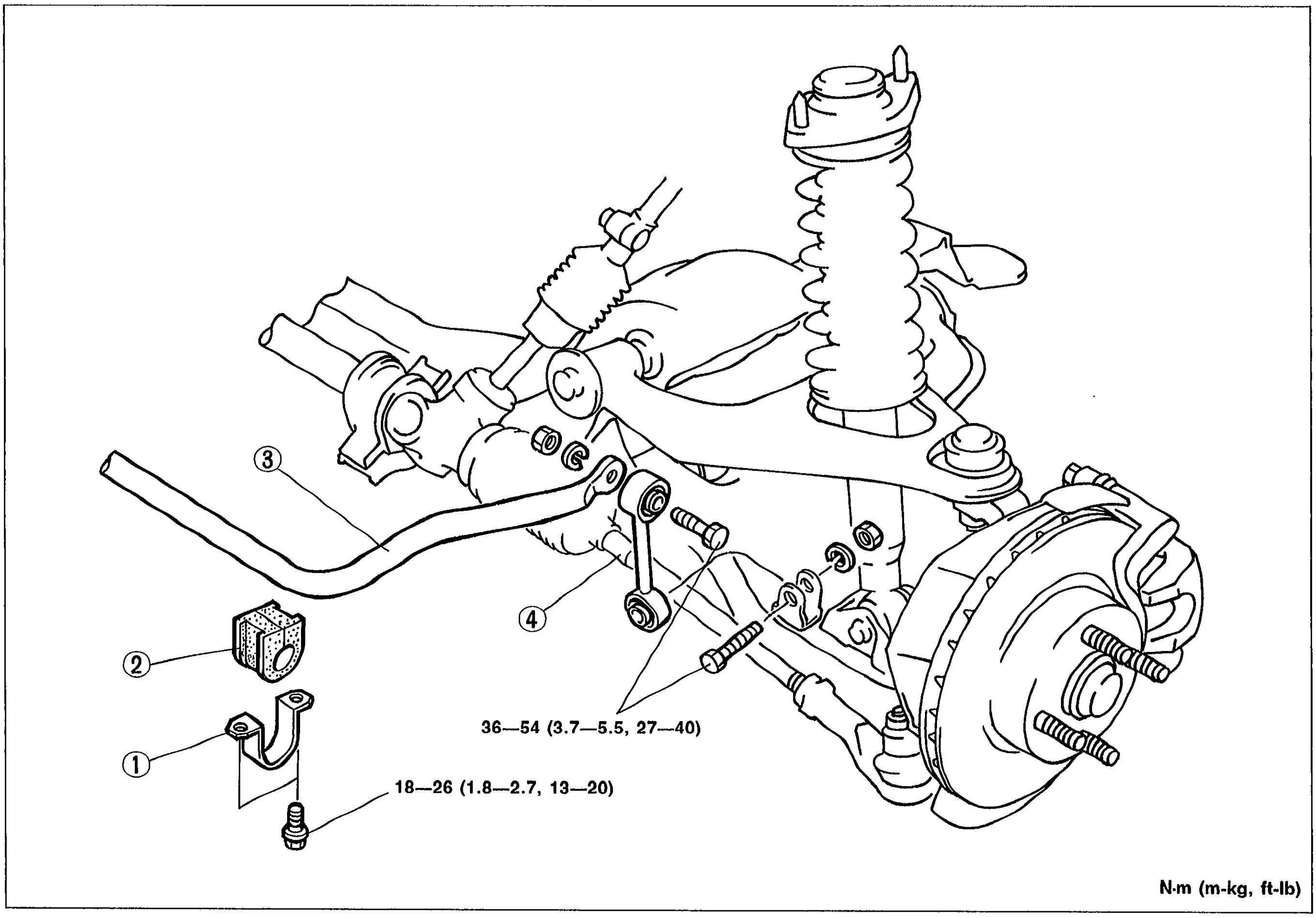
STABILIZER

Removal / Inspection / Installation

1. Jack up the front of the vehicle and support it with safety stands.
2. Remove the undercover.
3. Remove in the order shown in the figure.
4. Inspect all parts and repair or replace as necessary.
5. Install in the reverse order of removal, referring to **Installation Note**.
6. Tighten all nuts and bolts to the specified torques, referring to the figure.

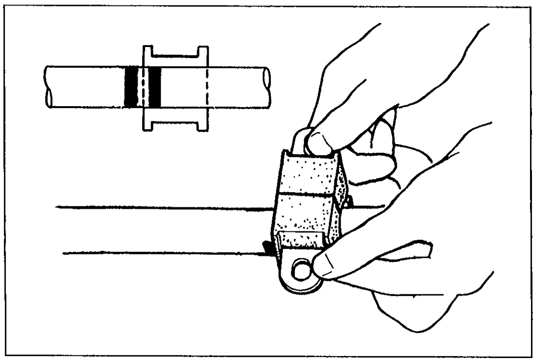
Note

- **Loosely tighten the stabilizer control link and bracket bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.**



05U0RX-044

1. Stabilizer bracket
2. Stabilizer bushing
   Inspect for deterioration and wear
   Installation Note .... below
3. Stabilizer
   Inspect for bending and damage
4. Stabilizer control link
   Inspect for bending and damage



05U0RX-045

Installation note

Stabilizer bushing

Align the bushing with the installation mark on the stabilizer.

CROSSMEMBER

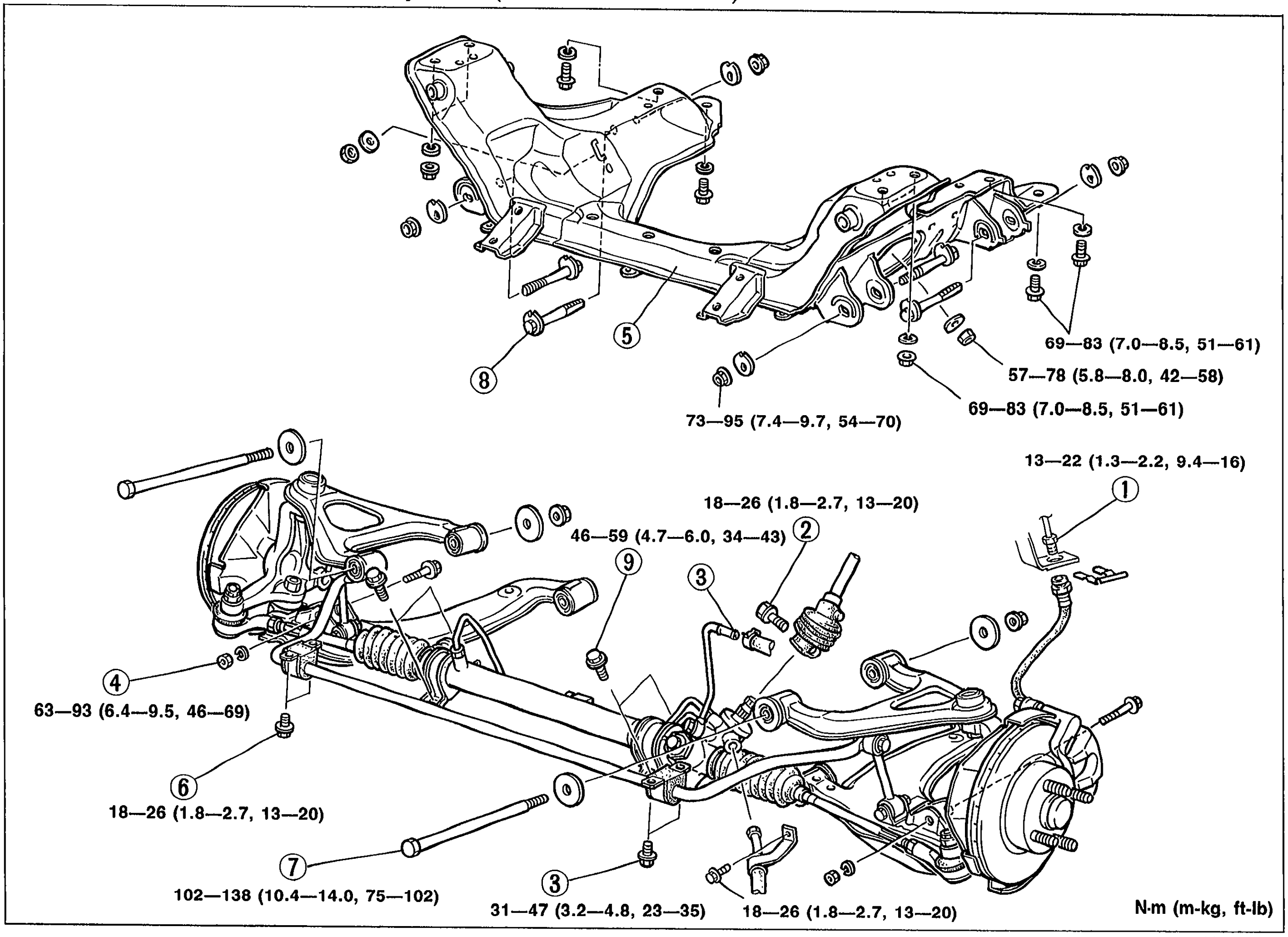
Removal / Inspection / Installation

1. Jack up the vehicle.
2. Remove the wheels and the undercover.
3. Support the engine with a hoist.
4. Remove in the order shown in the figure.
5. Inspect all parts and repair or replace as necessary.

Note

- **Use a container or rags to collect the power steering fluid when disconnecting the power steering pipes.**
- **Lower the crossmember and other suspension parts as an assembly, and then separate the parts.**
- **Loosely tighten the stabilizer bracket, upper arm, and lower arm bolts when assembling before installation. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.**

6. Install in the reverse order of removal.
7. Adjust the front wheel alignment. (Refer to page R–6.)
8. Bleed the air from the brake system. (Refer to Section P.)

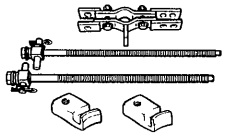
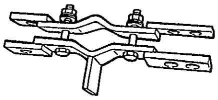
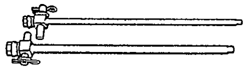
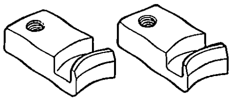

69—83 (7.0—8.5, 51—61)
⑤
57—78 (5.8—8.0, 42—58)
⑧
69—83 (7.0—8.5, 51—61)
73—95 (7.4—9.7, 54—70)
13—22 (1.3—2.2, 9.4—16)
①
18—26 (1.8—2.7, 13—20)
46—59 (4.7—6.0, 34—43)
②
⑨
③
④
63—93 (6.4—9.5, 46—69)
⑥
18—26 (1.8—2.7, 13—20)
⑦
102—138 (10.4—14.0, 75—102)
③
31—47 (3.2—4.8, 23—35)
18—26 (1.8—2.7, 13—20)
N·m (m-kg, ft-lb)

05U0RX-046

1. Brake pipe
   Removal / Installation .... Section P
2. Pinion shaft bolt
   Removal / Installation .... Section N
3. Power steering pipe
   Removal / Installation .... Section N
4. Shock absorber bolt
5. Front crossmember assembly
   Inspect for damage
6. Stabilizer bracket
7. Upper arm bolt
8. Lower arm bolt
9. Steering gear bracket bolt

REAR SUSPENSION (DOUBLE-WISHBONE)

PREPARATION
SST

49 G030 1A0 Compressor, coil spring 	For removal and installation of coil spring	49 G030 101 Body (Part of 49 G030 1A0) 	For removal and installation of coil spring
49 G030 102 Screw (Part of 49 G030 1A0) 	For removal and installation of coil spring	49 G030 103 Arm (Part of 49 G030 1A0). 	For removal and installation of coil spring

05U0RX-047

SHOCK ABSORBER AND SPRING

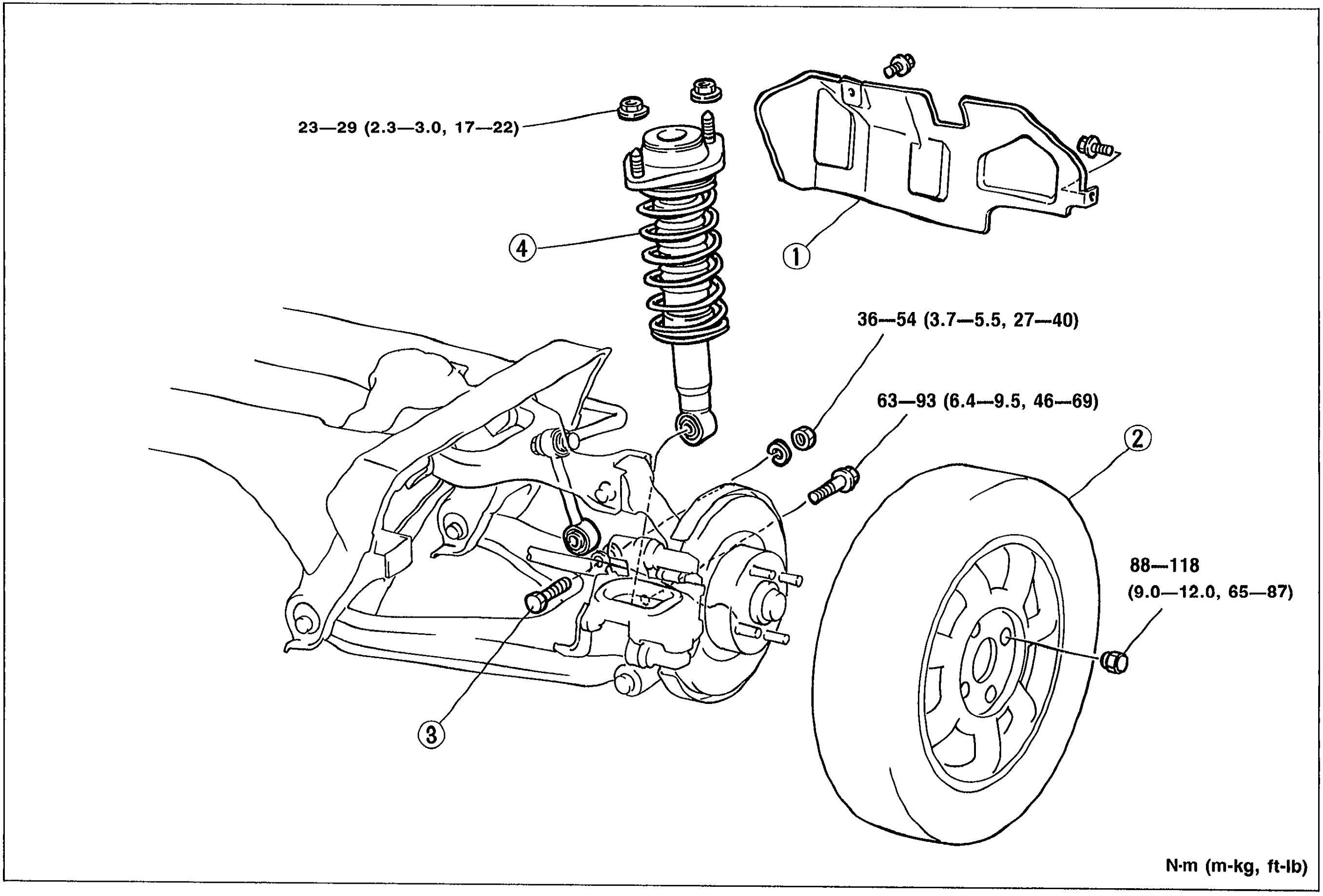
Removal / Installation

1. Jack up the front of the vehicle and support it with safety stands.
2. Remove in the order shown in the figure, referring to **Removal Note**.
3. Inspect all parts and repair or replace as necessary.
4. Install in the reverse order of removal.
5. Tighten all nuts and bolts to the specified torques, referring to the figure.

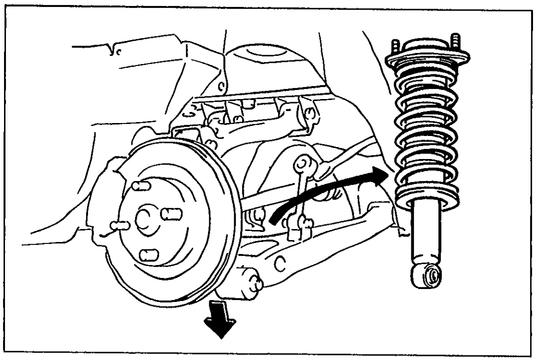
Note

- **Loosely tighten the stabilizer control link bolt. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.**

6. Adjust the rear wheel alignment. (Refer to page R–9.)



1. Filler pipe protector (left side)
2. Wheel and tire
3. Stabilizer control link bolt
4. Shock absorber and spring
   Removal Note.............................. page R–22
   Disassembly / Inspection /
   Assembly.................................. page R–13



Removal note

Shock absorber and spring

1. Loosen the upper and lower arm bolts.
2. Lower the upper and lower arms to remove the shock absorber and spring.

Caution

- **Do not lower the arms excessively, which may damage the brake hose.**

LOWER ARM

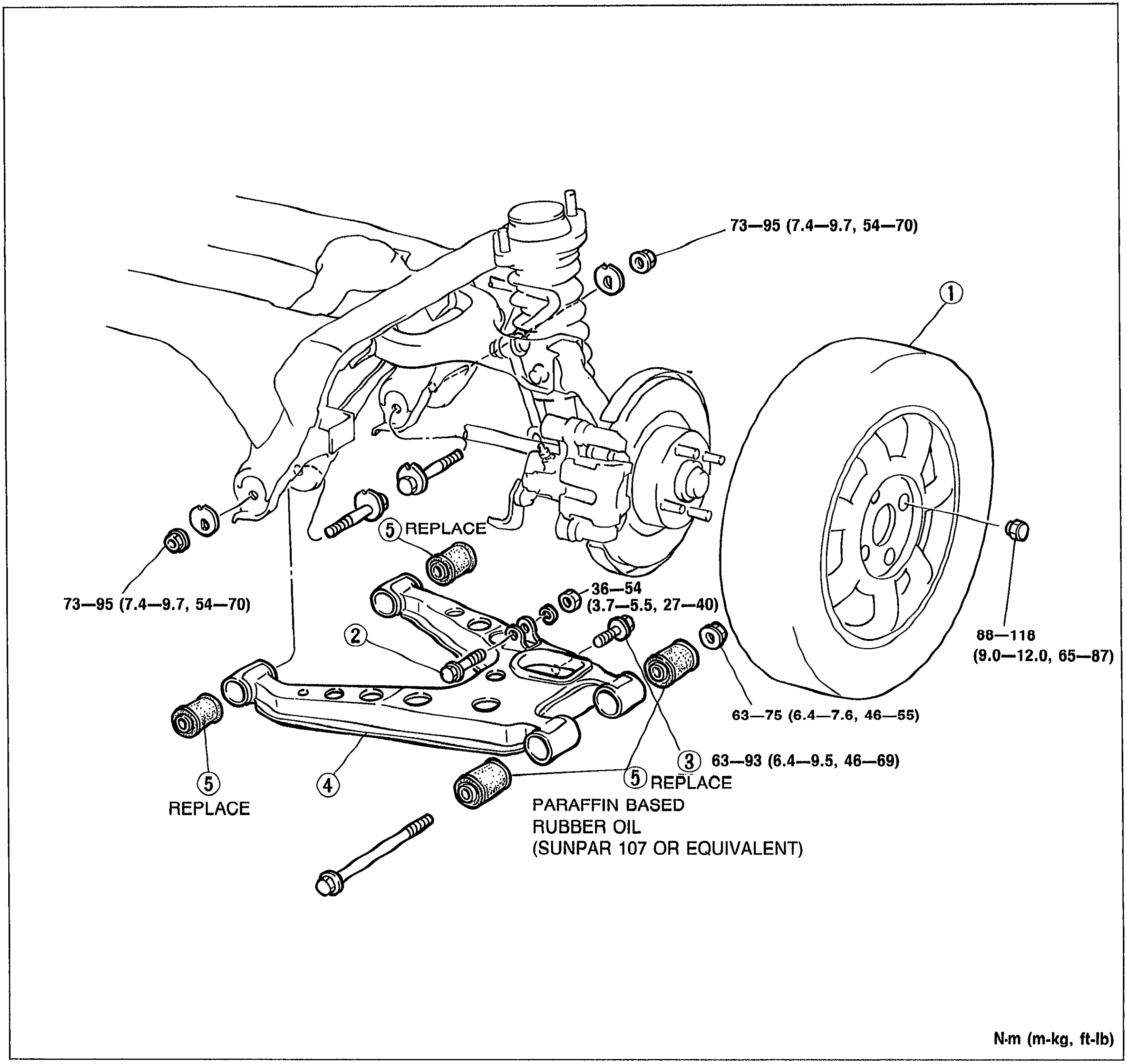
Removal / Inspection / Installation

1. Jack up the rear of the vehicle and support it with safety stands.
2. Remove in the order shown in the figure, referring to **Removal Note**.
3. Inspect all parts and repair or replace as necessary.
4. Install in the reverse order of removal.

Note

- **Loosely tighten the lower arm, shock absorber, and stabilizer control link bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.**

5. Adjust the rear wheel alignment. (Refer to page R–9.)


73—95 (7.4—9.7, 54—70)
①
73—95 (7.4—9.7, 54—70)
⑤ REPLACE
36—54 (3.7—5.5, 27—40)
②
88—118 (9.0—12.0, 65—87)
63—75 (6.4—7.6, 46—55)
③ 63—93 (6.4—9.5, 46—69)
⑤ REPLACE
⑤
REPLACE
④
PARAFFIN BASED
RUBBER OIL
(SUNPAR 107 OR EQUIVALENT)
N·m (m-kg, ft-lb)

05U0RX-050

1. Wheel and tire
2. Stabilizer control link bolt
3. Shock absorber bolt
4. Lower arm
   Inspect for damage and cracks
5. Lower arm bushing
   (crossmember side and knuckle side)
   Inspect for deterioration and wear

UPPER ARM

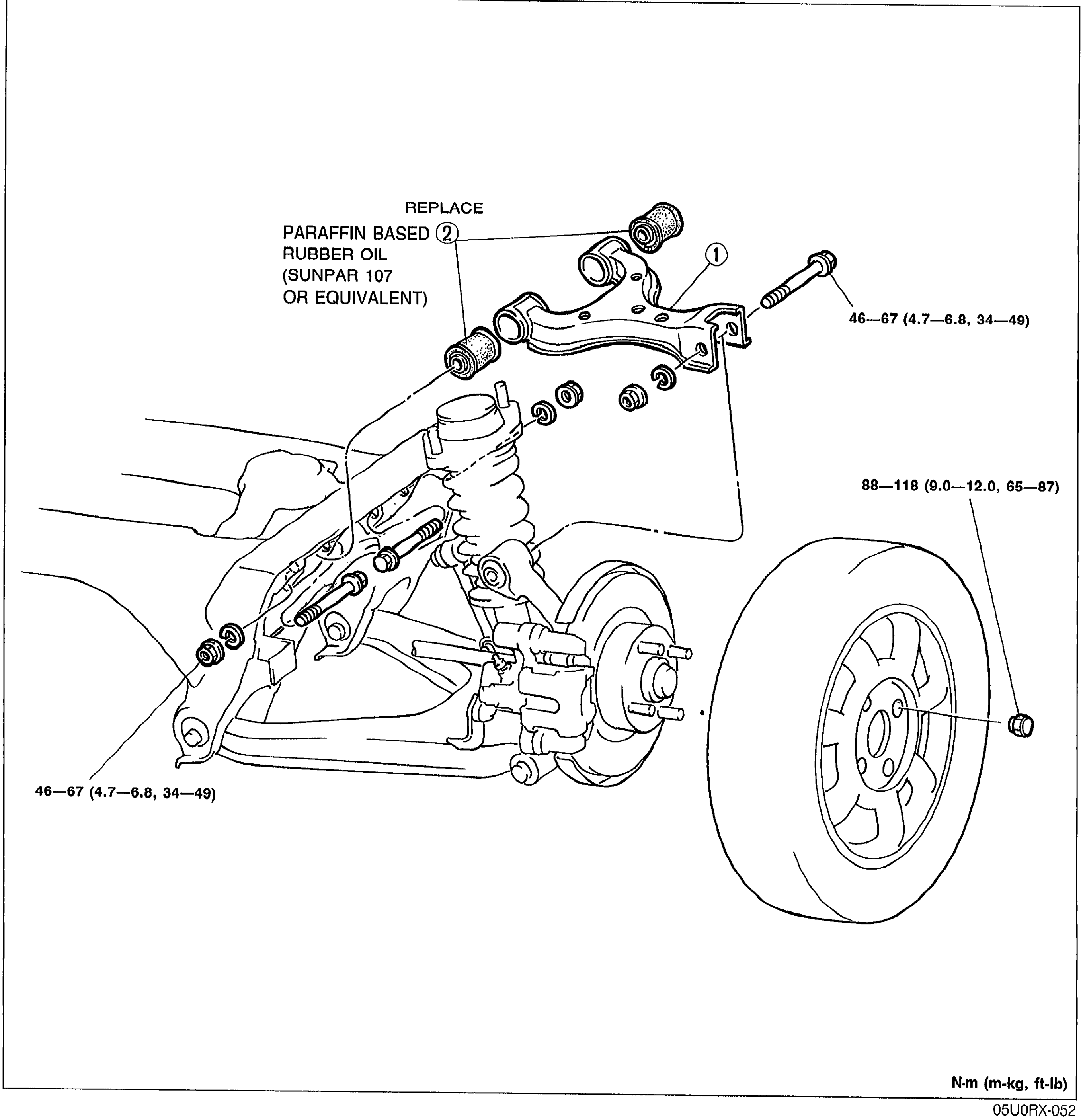
Removal / Inspection / Installation

1. Jack up the rear of the vehicle and support it with safety stands.
2. Remove in the order shown in the figure, referring to **Removal Note**.
3. Inspect all parts and repair or replace as necessary.
4. Install in the reverse of removal.

Note

- **Loosely tighten the upper arm bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.**

5. Adjust the rear wheel alignment. (Refer to page R–9.)


REPLACE
PARAFFIN BASED ②
RUBBER OIL
(SUNPAR 107
OR EQUIVALENT)
①
46—67 (4.7—6.8, 34—49)
88—118 (9.0—12.0, 65—87)
46—67 (4.7—6.8, 34—49)
N·m (m-kg, ft-lb)

05U0RX-052

1. Upper arm
   Inspect for damage and cracks
2. Upper arm bushing
   Inspect for deterioration and wear

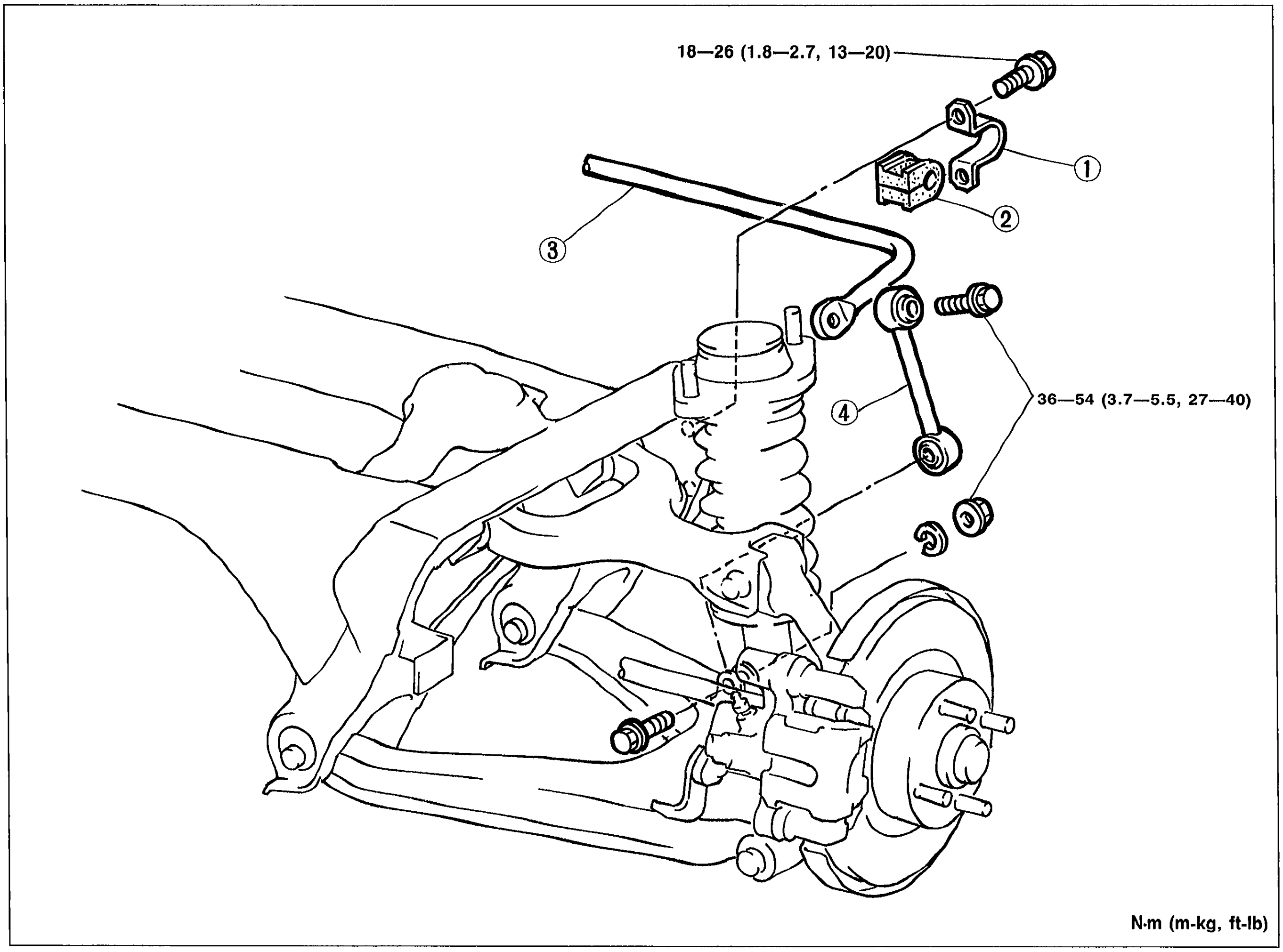
STABILIZER

Removal / Inspection / Installation

1. Jack up the rear of the vehicle and support it with safety stands.
2. Remove in the order shown in the figure.
3. Inspect all parts and repair or replace as necessary.
4. Install in the reverse order of removal, referring to **Installation Note**.

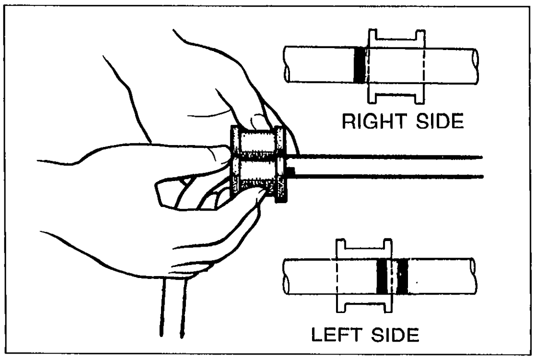
Note

- **Loosely tighten the stabilizer bracket and control link bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.**



05U0RX-054

1. Stabilizer bracket
2. Stabilizer bushing
    Inspect for deterioration and wear
    Installation Note .... below
3. Stabilizer
    Inspect for bending and damage
4. Control link
    Inspect for bending and damage



05U0RX-055

Installation note

Stabilizer bushing

Align the bushing with the installation mark on the stabilizer.

CROSSMEMBER

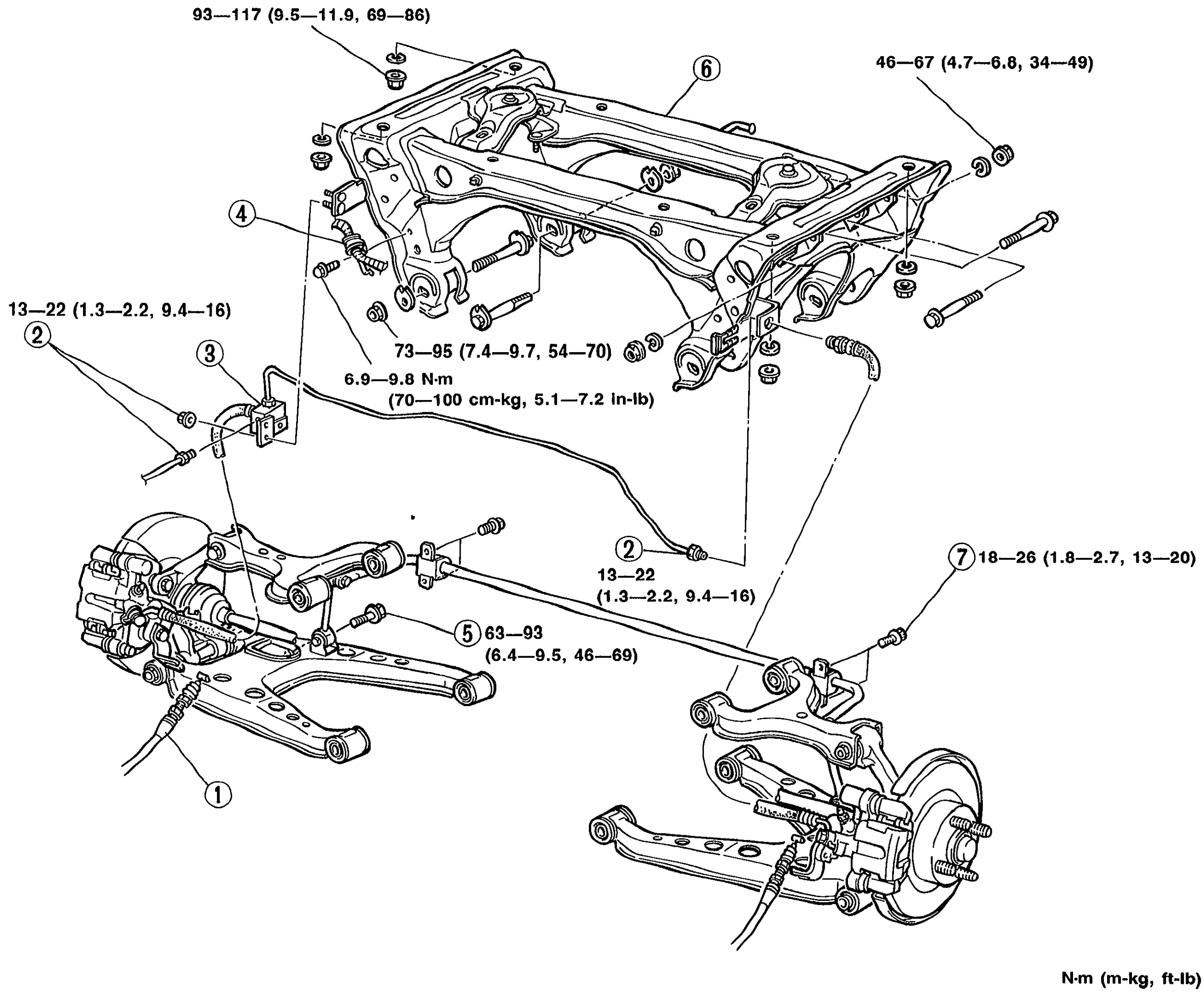
Removal / Inspection / Installation

1. Jack up the vehicle and support it with safety stands.
2. Remove the wheels and tires.
3. Remove the differential and the power plant frame. (Refer to Section M.)
4. Remove in the order shown in the figure.

Note

- **Lower the crossmember and other suspension parts as an assembly, and then separate the parts.**
- **Loosely tighten the stabilizer bracket, upper arm, and lower arm bolts when assembling before installation. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.**

5. Inspect parts and repair or replace as necessary.
6. Install in the reverse order of removal.
7. Adjust the rear wheel alignment. (Refer to page R–9.)
8. Bleed the air from the brake system. (Refer to Section P.)


93—117 (9.5—11.9, 69—86)
⑥
46—67 (4.7—6.8, 34—49)
④
13—22 (1.3—2.2, 9.4—16)
②
③
73—95 (7.4—9.7, 54—70)
6.9—9.8 N·m
(70—100 cm-kg, 5.1—7.2 in-lb)
②
13—22
(1.3—2.2, 9.4—16)
⑦ 18—26 (1.8—2.7, 13—20)
⑤ 63—93
(6.4—9.5, 46—69)
①
N·m (m-kg, ft-lb)

05U0RX-056

1. Parking brake cable
   Removal / Installation .... Section P
2. Brake pipe
   Removal / Installation .... Section P
3. Brake pipe joint
4. Battery cable bracket
5. Shock absorber bolt
6. Rear crossmember assembly
   Inspect for damage
7. Stabilizer bracket
8. Upper arm bolt
9. Lower arm bolt

BODY

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  COMPONENTS .... S– 7
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  COMPONENTS S–50
TRIM S–53
  COMPONENTS S–53
FLOORMAT S–56
  COMPONENTS S–56
SEAT BELT S–57
  COMPONENTS S–57
  EMERGENCY LOCKING RETRACTOR S–58
  WEBBING S–58
  BUCKLE SWITCH S–58
SEAT S–59
  COMPONENTS S–59
CONVERTIBLE TOP S–61
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  COMPONENTS S–70
UNDERBODY DIMENSIONS S–73
  UNDERBODY STRAIGHT-LINE DIMENSIONS S–73
  UNDERBODY PROJECTED DIMENSIONS S–74

05U0SX-001

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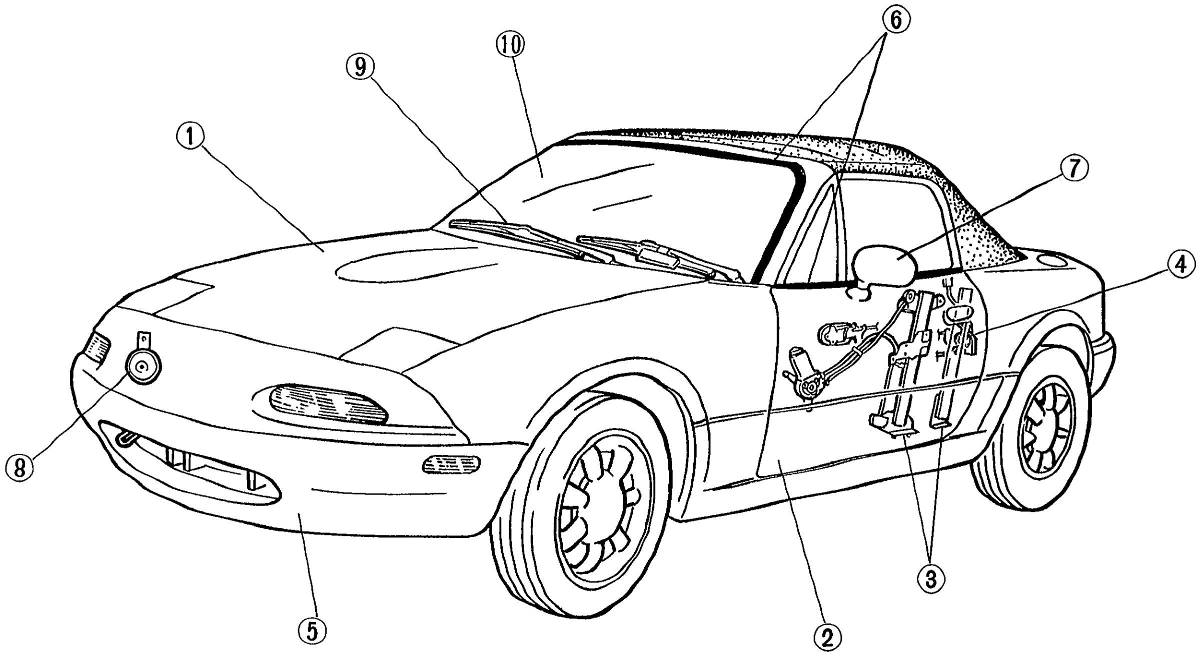

05U0SX-002

1. Hood
    Removal / Installation .... page S– 5
2. Door
    Removal / Installation .... page S– 7
3. Window regulator, glass, and guide
    Removal / Installation .... page S– 9
4. Door lock and opener
    Removal / Installation .... page S–15
5. Front bumper
    Removal / Installation .... page S–24
6. Molding and garnish
    Removal / Installation .... page S–27
7. Door mirror
    Removal / Installation .... page S–30
8. Horn
    Removal / Installation .... page S–30
9. Windshield wiper and washer
    Troubleshooting guide .... page S–31
    Inspection .... page S–34
    Removal / Installation .... page S–35
    Disassembly / Assembly .... page S–37
10. Windshield
    Removal / Installation .... page S–38

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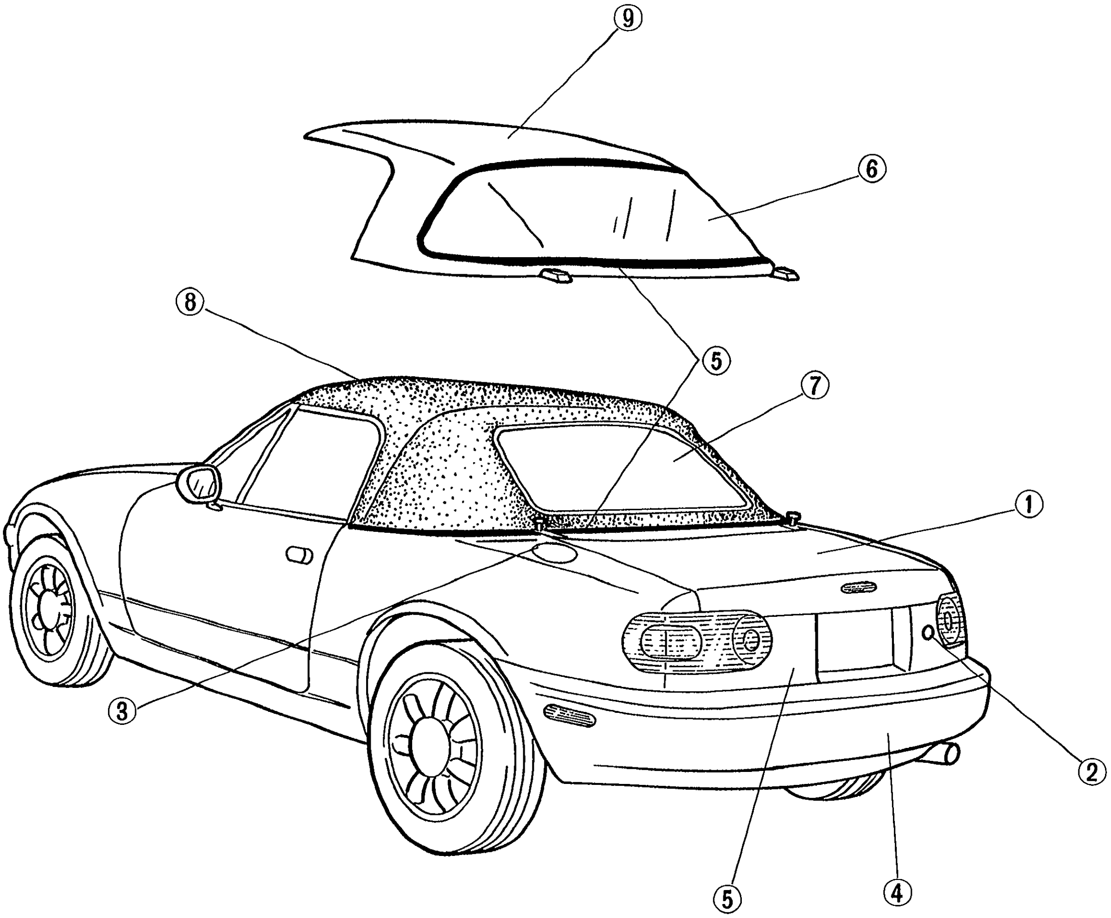

05U0SX-003

1. Trunk lid
   - Removal / Installation .... page S–16
2. Trunk lid lock and opener
   - Removal / Installation .... page S–18
3. Fuel filler lid
   - Removal / Installation .... page S–23
4. Rear bumper
   - Removal / Installation .... page S–25
   - Disassembly / Assembly .... page S–26
5. Molding and garnish
   - Removal / Installation .... page S–27
6. Rear window glass (Detachable hard top)
   - Removal / Installation .... page S–42
7. Rear window (Convertible top)
   - Removal / Installation .... page S–46
8. Convertible top
   - Removal / Installation .... page S–61
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   - Disassembly / Assembly .... page S–70

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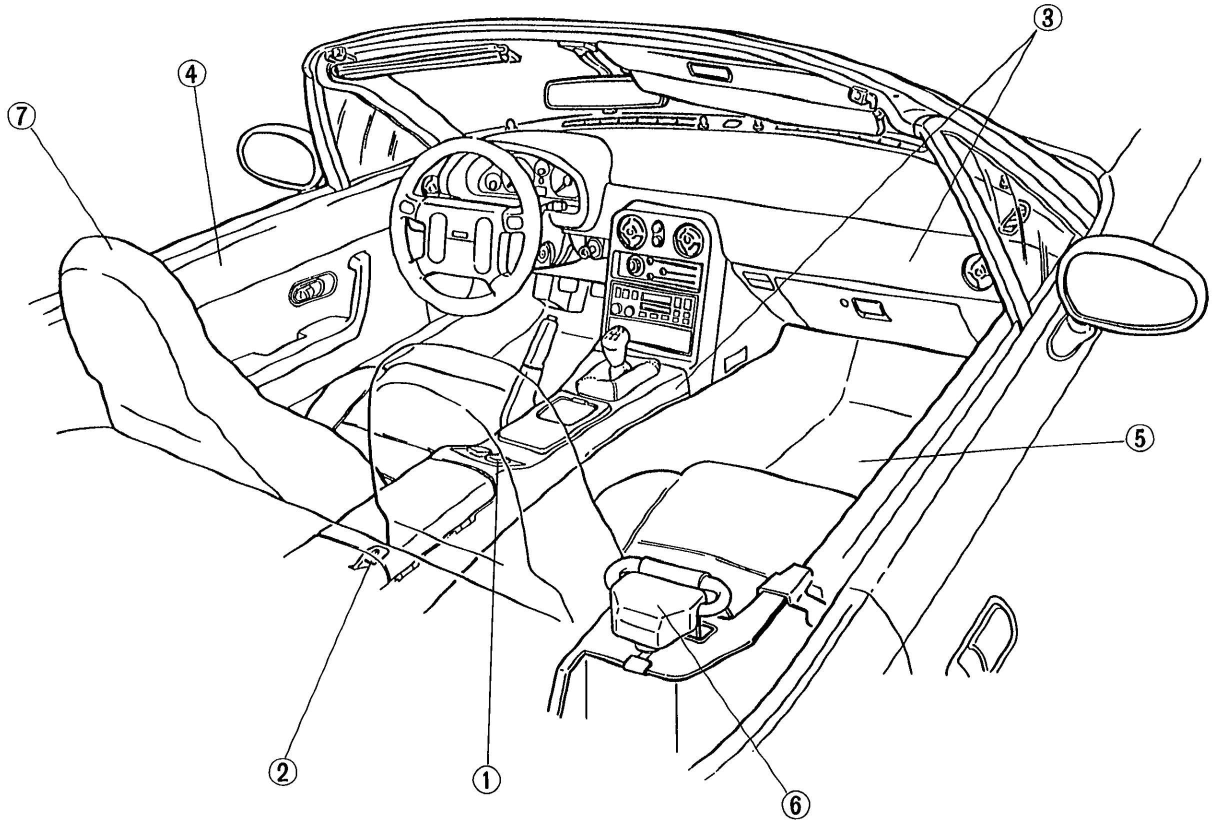

05U0SX-004

1. Power window system
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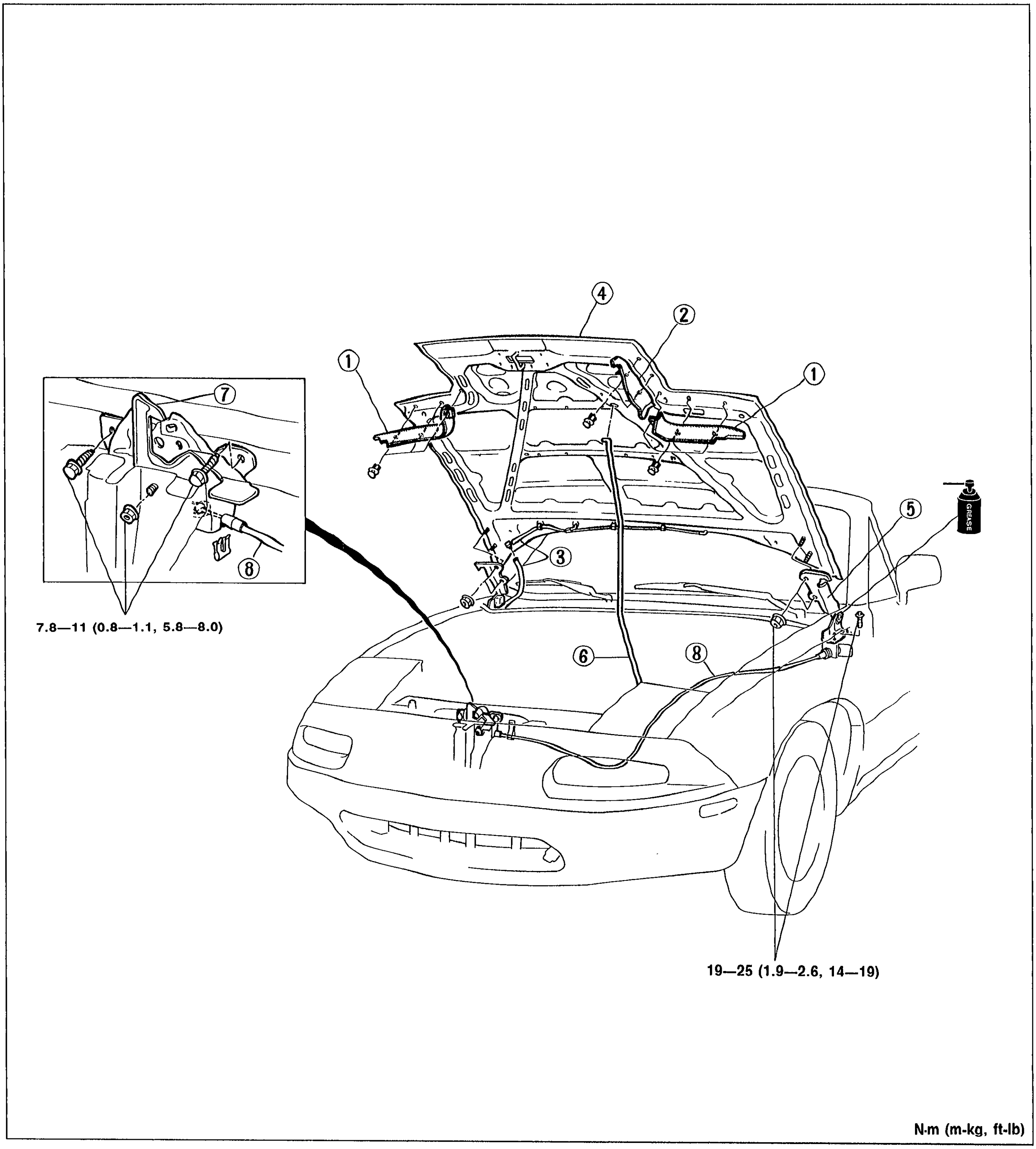
   - Troubleshooting guide .... page S–20
   - Inspection .... page S–22
2. Fuel filler lid opener
   - Removal / Installation .... page S–23
3. Dashboard and console
   - Removal / Installation .... page S–50
4. Trim
   - Removal / Installation .... page S–53
5. Floormat
   - Removal / Installation .... page S–56
6. Seat belt
   - Removal / Installation .... page S–57
   - Inspection .... page S–58
7. Seat
   - Removal / Installation .... page S–59
   - Disassembly / Assembly .... page S–60

HOOD

COMPONENTS

Removal / Installation

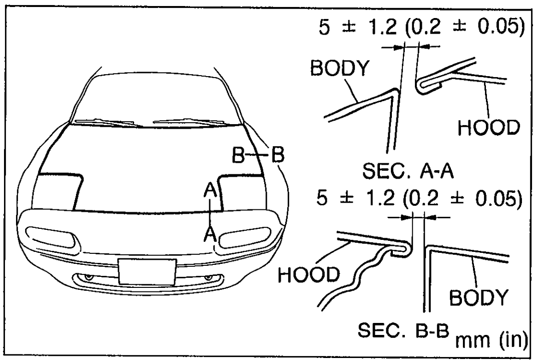
1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.



④
②
①
①
⑦
⑤
③
⑧
⑥
⑧
GREASE
7.8—11 (0.8—1.1, 5.8—8.0)
19—25 (1.9—2.6, 14—19)
N·m (m-kg, ft-lb)

05U0SX-005

1. Headlight seal
2. Side headlight seal
3. Washer pipe
4. Hood
   Adjustment....... page S- 6
5. Hinge
6. Hood stay
7. Hood lock
   Adjustment....... page S- 6
8. Release wire

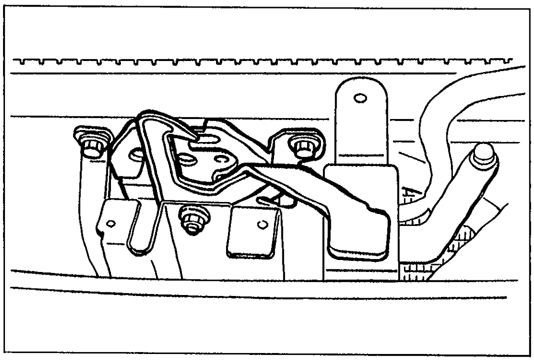

5 ± 1.2 (0.2 ± 0.05)
BODY
HOOD
SEC. A-A
5 ± 1.2 (0.2 ± 0.05)
HOOD
BODY
SEC. B-B
mm (in)
B
B
A
A

05U0SX-159

Adjustment

Hood

Adjust the hood laterally and vertically by loosening the hood-to-hinge mounting bolts and repositioning the hood.



05U0SX-006

Hood lock

Adjust the hood lock after the hood has been aligned. Loosen the hood lock mounting bolts and nut, and align the lock with the striker on the hood.

DOOR

COMPONENTS

Caution

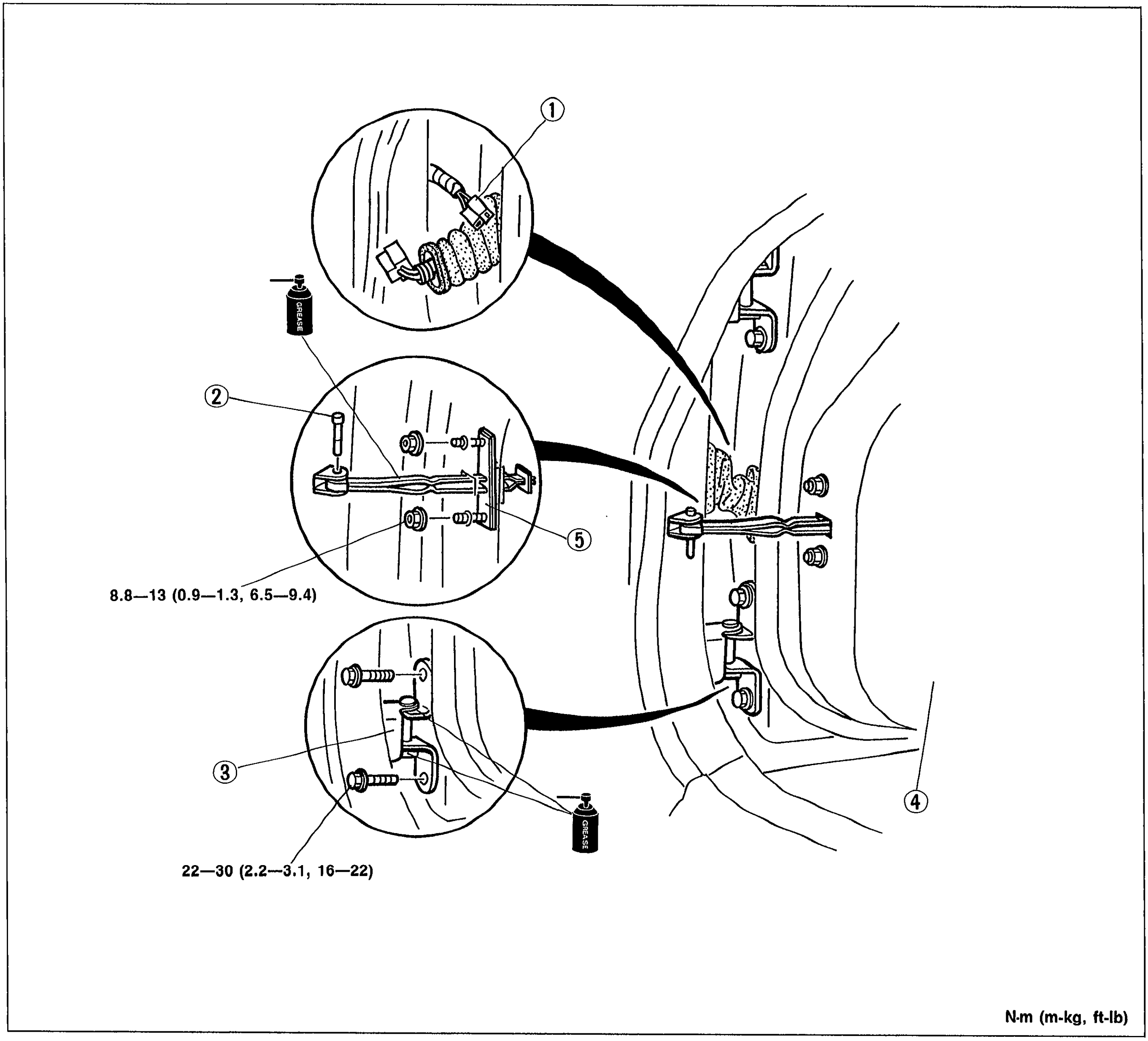
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)**

Removal / Installation

1. Disconnect the negative battery cable.
2. Remove in the order shown in the figure.
3. Install in the reverse order of removal.

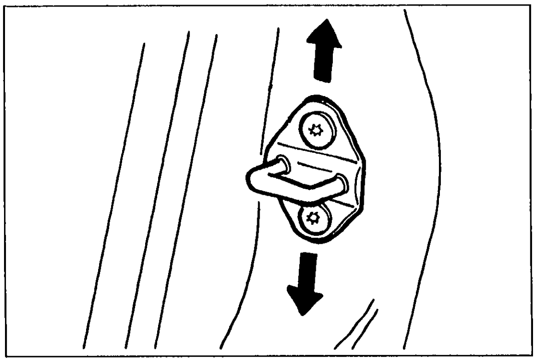
Note

- **Remove the trim and door screen for removal of the door checker. (Refer to page S–9.)**
- **Adjust the door lock striker. (Refer to page S–8.)**

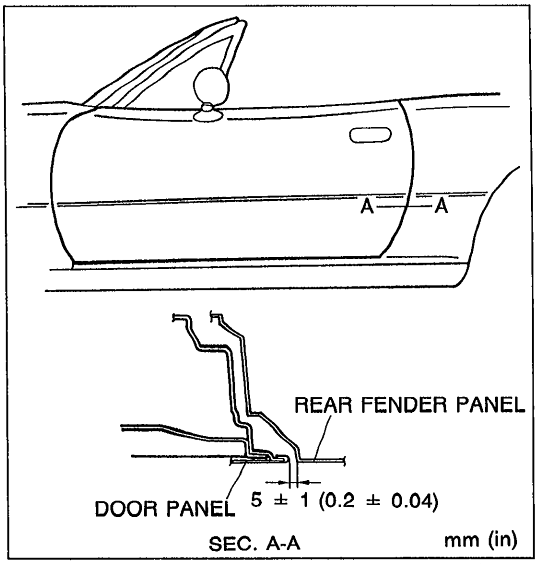

①
GREASE
②
⑤
8.8—13 (0.9—1.3, 6.5—9.4)
③
④
GREASE
22—30 (2.2—3.1, 16—22)
N·m (m-kg, ft-lb)

05U0SX-007

1. Harness connector
2. Checker pin
3. Hinge
4. Door
   Adjustment.................................. page S–8
5. Checker



05U0SX-008



05U0SX-009

Adjustment

Door lock striker

1. Verify that the door can be closed easily and whether there is any looseness. If there is a problem, loosen the striker mounting screws and adjust by moving the striker vertically.
2. Verify the rear offset of the door to the body. If there is a problem, adjust by moving the door lock striker vertically.

Tightening torque:
18—26 N·m (1.8—2.7 m-kg, 13—20 ft-lb)

Door

Loosen the hinge bolts and adjust as shown in the figure. Tighten the bolts to the specified torque.

Tightening torque:
22—30 N·m (2.2—3.1 m-kg, 16—22 ft-lb)

WINDOW REGULATOR, GLASS, AND GUIDE

COMPONENTS

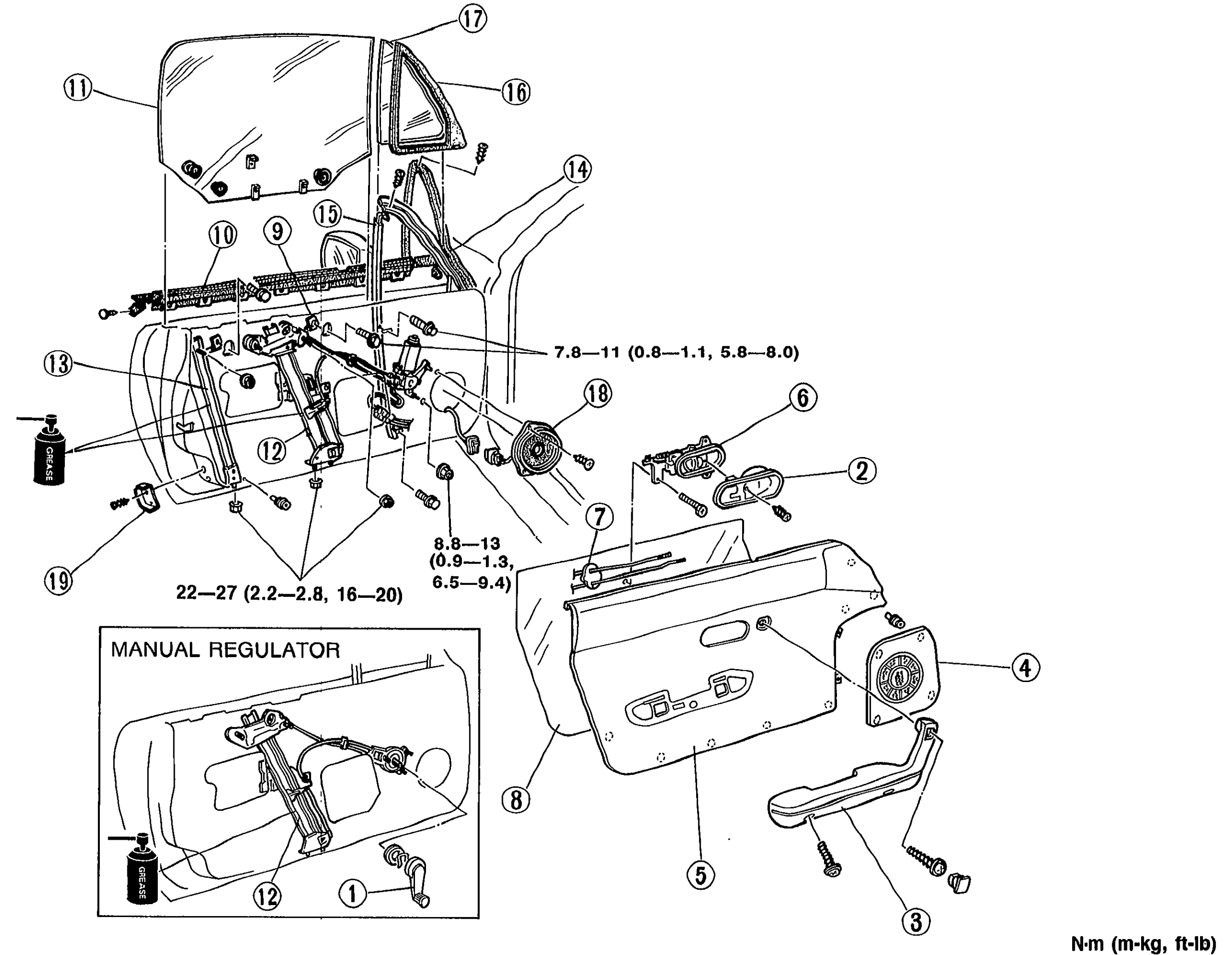
Caution
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)**

Removal / Installation

1. Disconnect the negative battery cable.
2. Remove in the order shown in the figure.
3. Install in the reverse order of removal.

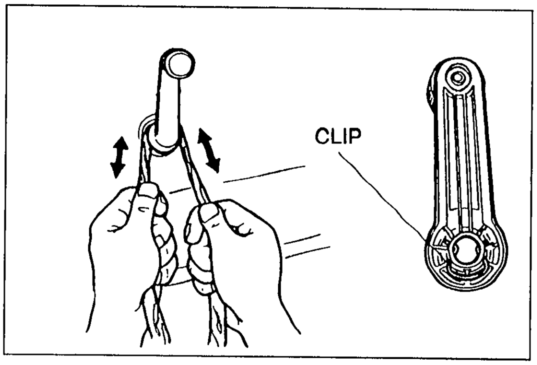
Caution
- **Remove the door screen carefully so that it may be reused.**

Note
- **Raise the door glass about 190mm (7.5 in) from fully-open position.**


⑰
⑪
⑯
⑭
⑮
⑩
⑨
7.8—11 (0.8—1.1, 5.8—8.0)
⑬
⑱
⑥
GREASE
⑫
②
⑦
8.8—13 (0.9—1.3, 6.5—9.4)
⑲
22—27 (2.2—2.8, 16—20)
MANUAL REGULATOR
④
⑧
GREASE
⑫
①
⑤
③
N·m (m-kg, ft-lb)

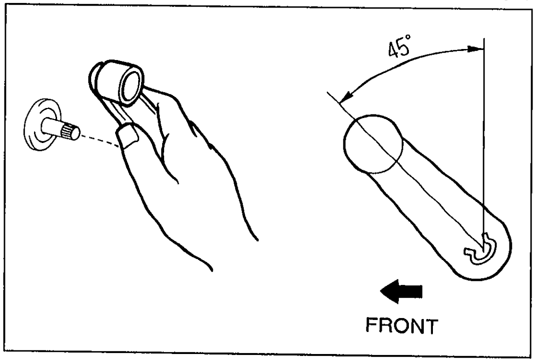
05U0SX-010

1. Regulator handle
    Removal Note .. page S–10
    Installation Note page S–10
2. Inner handle cover
3. Arm rest
4. Speaker grille
    Removal Note .. page S–55
5. Door trim
    Removal Note .. page S–55
6. Inner handle
7. Sealing pad
8. Door screen
9. Upper stop
10. Front beltline molding
    Removal Note .. page S–28
11. Door glass
    Adjustment .... page S–10
12. Window regulator
13. Glass guide
14. Door weatherstrip
15. Division channel
16. Weatherstrip
17. Quarter glass
18. Speaker (If necessary)
19. Dovetail (If necessary)



05U0SX-011

Removal Note
Regulator handle
Remove the regulator handle clip with a rag, as shown.

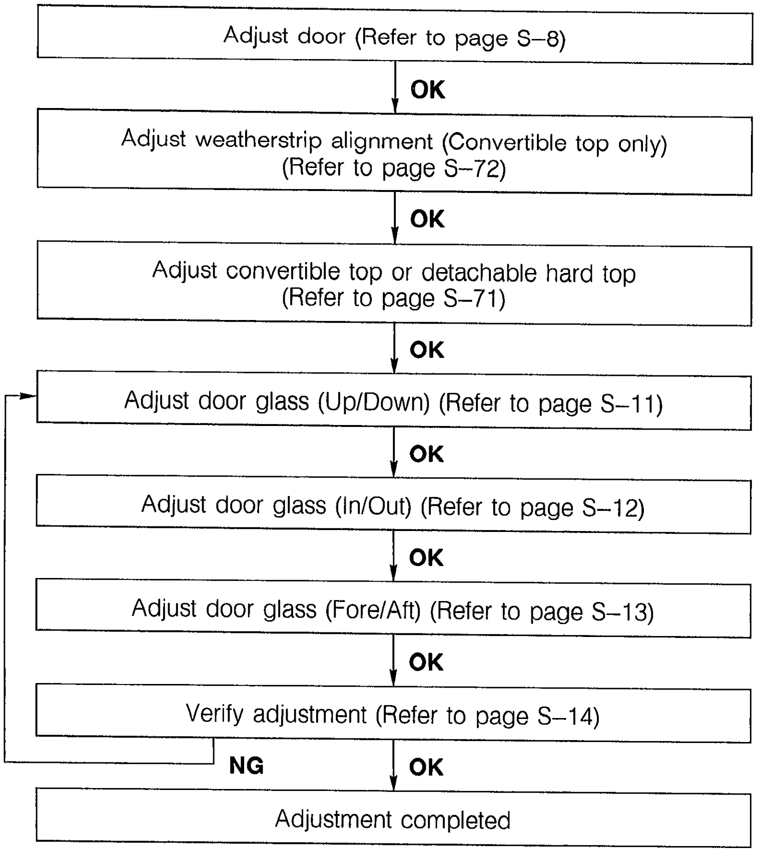


05U0SX-012

Installation Note
Regulator handle
Install the regulator handle as shown.

Note
- **With door glass at fully-closed position.**

Adjustment
Door glass
Adjustment of the door glass (convertible top and detachable hard top) is made as follows:


Adjust door (Refer to page S–8)
OK
Adjust weatherstrip alignment (Convertible top only) (Refer to page S–72)
OK
Adjust convertible top or detachable hard top (Refer to page S–71)
OK
Adjust door glass (Up/Down) (Refer to page S–11)
OK
Adjust door glass (In/Out) (Refer to page S–12)
OK
Adjust door glass (Fore/Aft) (Refer to page S–13)
OK
Verify adjustment (Refer to page S–14)
NG
OK
Adjustment completed

05U0SX-013

1. Vertical adjustment of door glass

Adjustment procedure

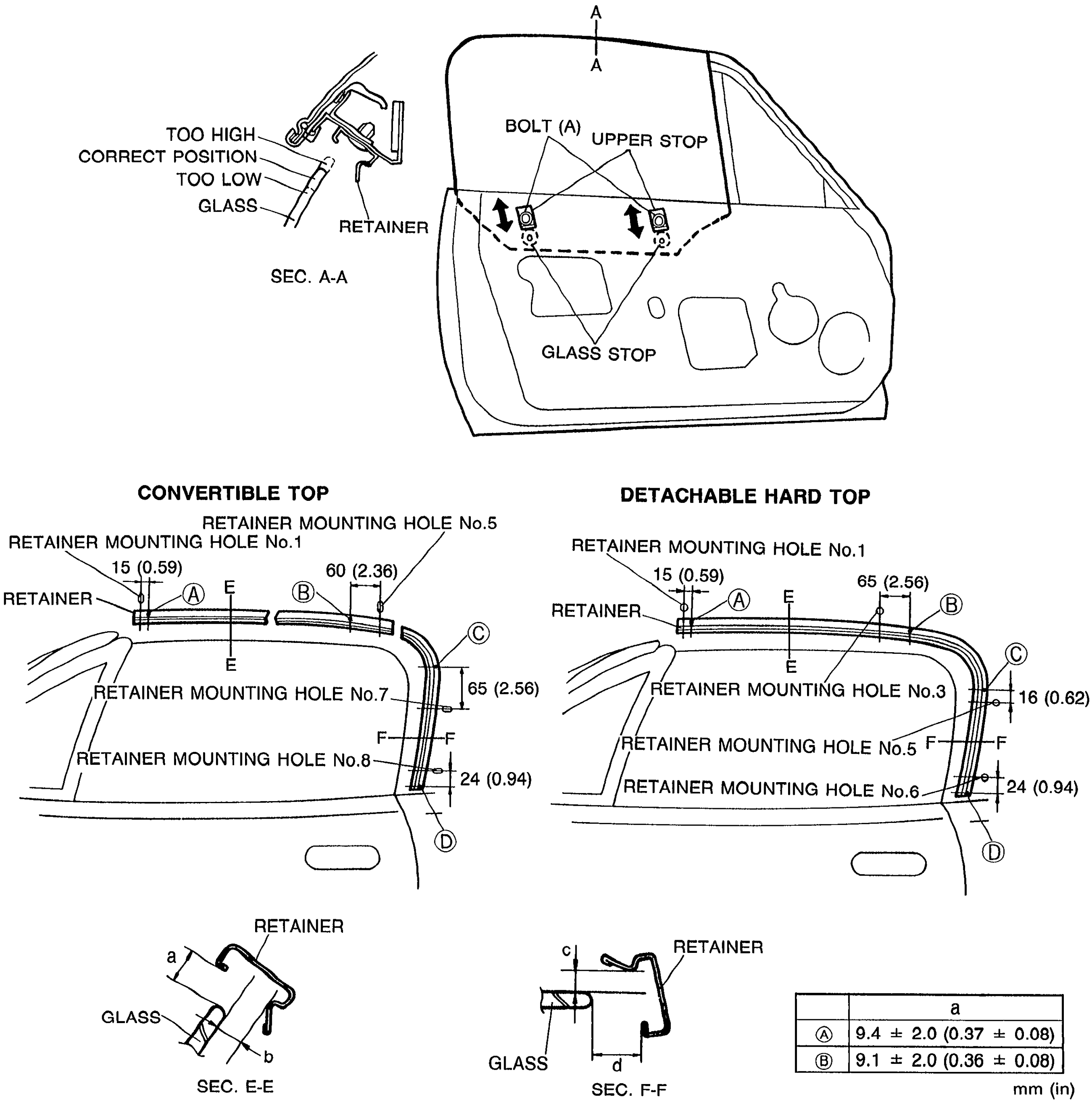
Remove the weatherstrip, and check alignment with the door glass in the fully-closed position.

(1) Loosen upper stop installation bolts (A).

(2) Adjust by moving the upper stop up or down so that the upper edge of the door glass is in the correct position, and then tighten bolts (A).

Note

- **When the door glass is raised, both glass stop must contact the upper stop simultaneously.**
- **Before an upper stop is moved for adjustment, lower the door glass slightly.**


A
A
TOO HIGH
CORRECT POSITION
TOO LOW
GLASS
RETAINER
SEC. A-A
BOLT (A)
UPPER STOP
GLASS STOP
CONVERTIBLE TOP
RETAINER MOUNTING HOLE No.5
RETAINER MOUNTING HOLE No.1
15 (0.59)
60 (2.36)
RETAINER
Ⓐ
E
Ⓑ
E
Ⓒ
RETAINER MOUNTING HOLE No.7
65 (2.56)
F
F
RETAINER MOUNTING HOLE No.8
24 (0.94)
Ⓓ
DETACHABLE HARD TOP
RETAINER MOUNTING HOLE No.1
15 (0.59)
65 (2.56)
RETAINER
Ⓐ
E
Ⓑ
E
Ⓒ
RETAINER MOUNTING HOLE No.3
16 (0.62)
RETAINER MOUNTING HOLE No.5
F
F
RETAINER MOUNTING HOLE No.6
24 (0.94)
Ⓓ
RETAINER
a
GLASS
b
SEC. E-E
c
RETAINER
GLASS
d
SEC. F-F

	a
Ⓐ	9.4 ± 2.0 (0.37 ± 0.08)
Ⓑ	9.1 ± 2.0 (0.36 ± 0.08)

mm (in)

05U0SX-014

2. Inboard/Outboard adjustment of door glass

Adjustment procedure

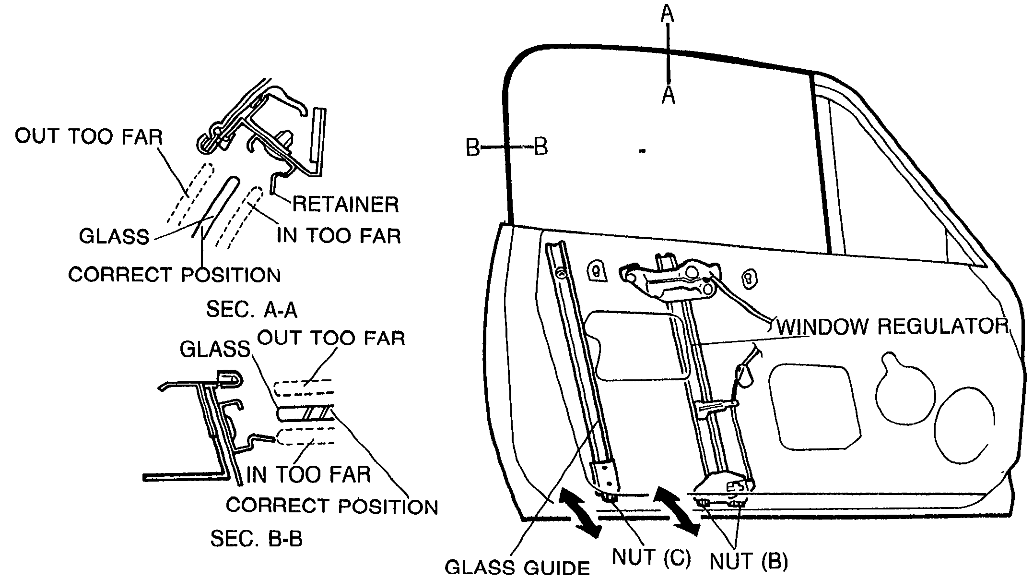
Remove the weatherstrip, and check alignment with the door glass in the fully-closed position.

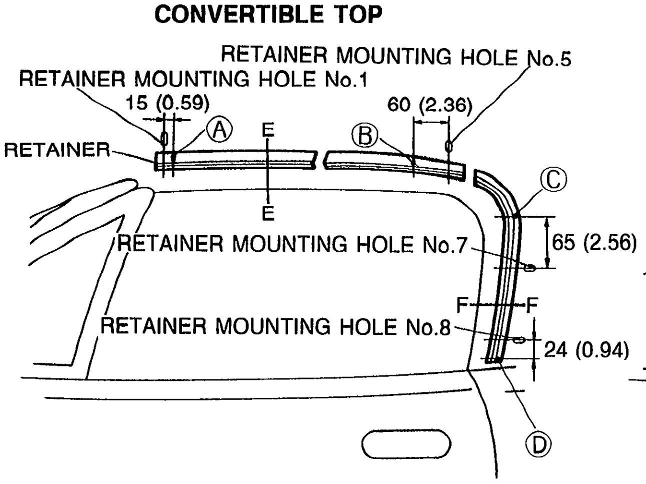
(1) Loosen window regulator installation nuts (B) and glass guide installation nut (C).

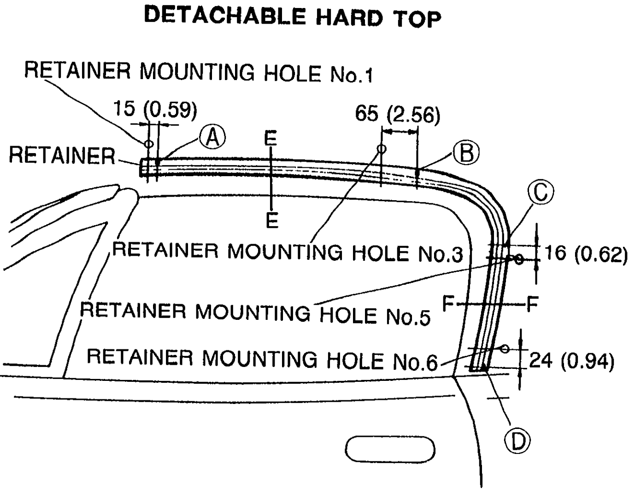
(2) Adjust by moving the window regulator and the glass guide inward or outward so that the upper and side edges of the door glass are in the correct position, and then tighten nuts (B) and (C).

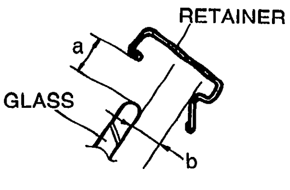
Note

- **The window regulator and the glass guide should be tightened in approximately the same position in the slotted adjustment holes.**
- **The door glass must raise and lower smoothly with the door closed.**

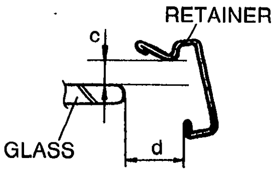

OUT TOO FAR
RETAINER
GLASS
IN TOO FAR
CORRECT POSITION
SEC. A-A
GLASS
OUT TOO FAR
IN TOO FAR
CORRECT POSITION
SEC. B-B
A
A
B
B
WINDOW REGULATOR
GLASS GUIDE
NUT (C)
NUT (B)


CONVERTIBLE TOP
RETAINER MOUNTING HOLE No.5
RETAINER MOUNTING HOLE No.1
15 (0.59)
60 (2.36)
RETAINER
Ⓐ
E
Ⓑ
Ⓒ
E
RETAINER MOUNTING HOLE No.7
65 (2.56)
F
F
RETAINER MOUNTING HOLE No.8
24 (0.94)
Ⓓ


DETACHABLE HARD TOP
RETAINER MOUNTING HOLE No.1
15 (0.59)
65 (2.56)
RETAINER
Ⓐ
E
Ⓑ
Ⓒ
E
RETAINER MOUNTING HOLE No.3
16 (0.62)
RETAINER MOUNTING HOLE No.5
F
F
RETAINER MOUNTING HOLE No.6
24 (0.94)
Ⓓ


RETAINER
a
GLASS
b

SEC. E-E


RETAINER
c
GLASS
d

SEC. F-F

	b
Ⓐ	9.3 ± 2.0 (0.37 ± 0.08)
Ⓑ	7.4 ± 2.0 (0.29 ± 0.08)

	c
Ⓒ	5.8 ± 2.0 (0.23 ± 0.08)
Ⓓ	11.1 ± 2.0 (0.44 ± 0.08)

mm (in)

05U0SX-015

3. Fore and aft adjustment of side edge of door glass

Adjustment procedure

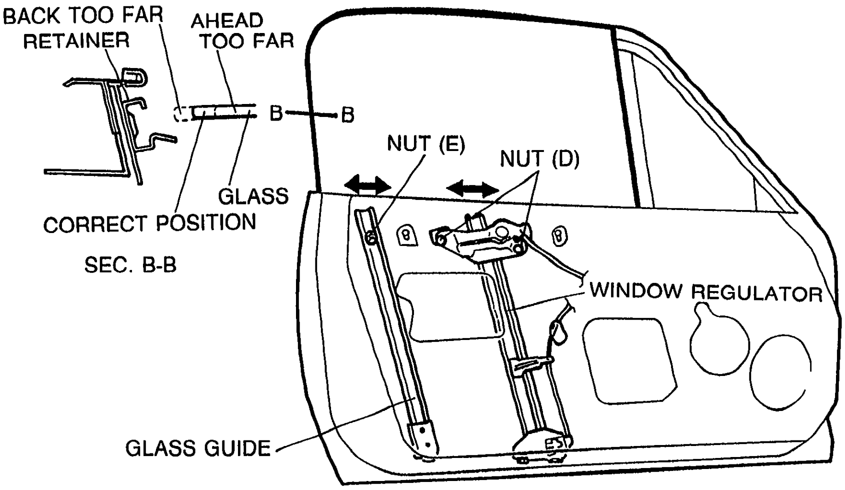
Remove the weatherstrip, and check alignment with the door glass in the fully-closed position.

(1) Loosen window regulator installation nuts (D) and glass guide installation nut (E).

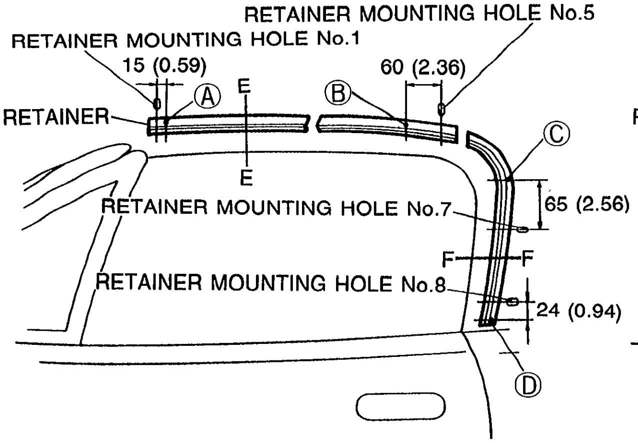
(2) Adjust by moving the window regulator and the glass guide fore or aft equally so that the side edge of the door glass is in the correct position, and then tighten the nuts (D) and (E).

Note

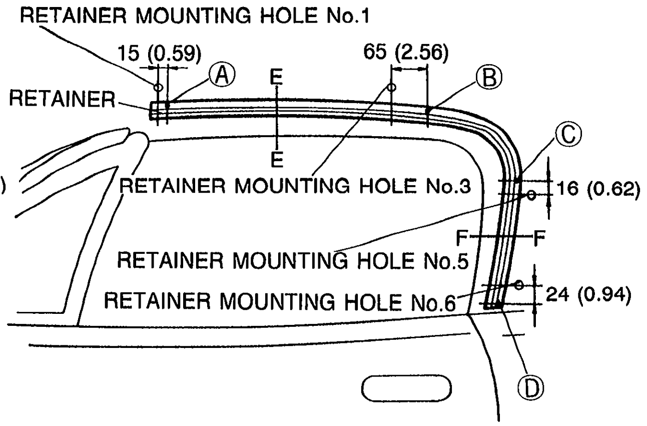
- **The window regulator and glass guide should be tightened in approximately the same position in the slotted adjustment holes.**
- **The door glass must raise and lower smoothly with the door closed.**

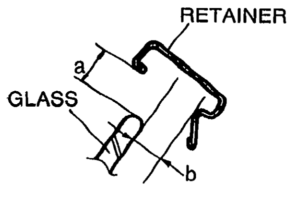

BACK TOO FAR
RETAINER
AHEAD TOO FAR
B—B
GLASS
CORRECT POSITION
SEC. B-B
NUT (E)
NUT (D)
WINDOW REGULATOR
GLASS GUIDE

DETACHABLE HARD TOP

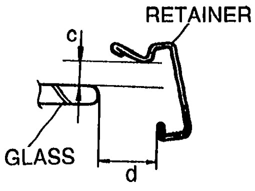

RETAINER MOUNTING HOLE No.5
RETAINER MOUNTING HOLE No.1
15 (0.59)
60 (2.36)
RETAINER
Ⓐ
E
Ⓑ
Ⓒ
E
RETAINER MOUNTING HOLE No.7
65 (2.56)
F—F
RETAINER MOUNTING HOLE No.8
24 (0.94)
Ⓓ

CONVERTIBLE TOP


RETAINER MOUNTING HOLE No.1
15 (0.59)
65 (2.56)
RETAINER
Ⓐ
E
Ⓑ
Ⓒ
E
RETAINER MOUNTING HOLE No.3
16 (0.62)
F—F
RETAINER MOUNTING HOLE No.5
RETAINER MOUNTING HOLE No.6
24 (0.94)
Ⓓ


RETAINER
a
GLASS
b

SEC. E-E


c
RETAINER
GLASS
d

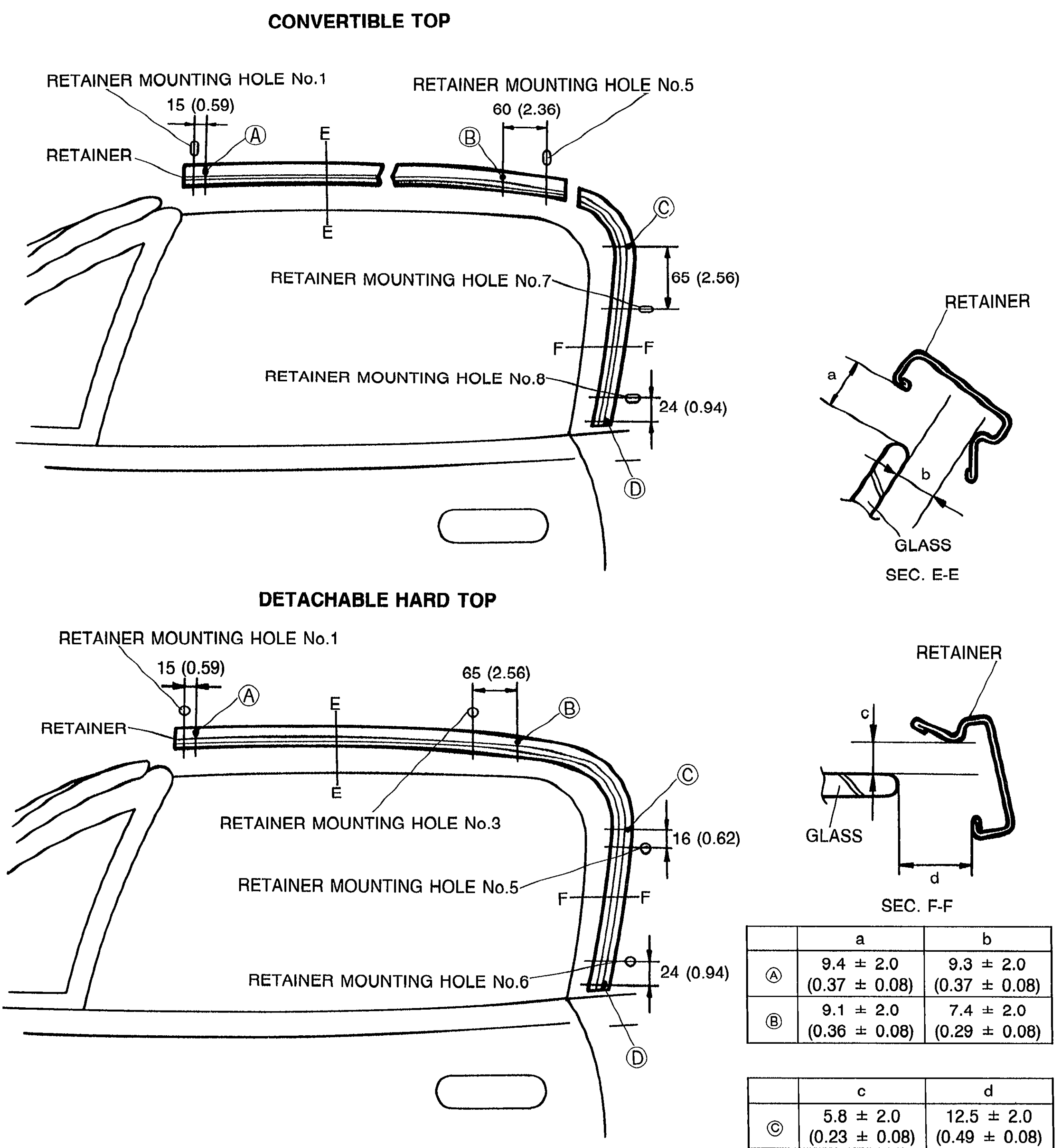
SEC. F-F

	d
Ⓒ	12.5 ± 2.0 (0.49 ± 0.08)
Ⓓ	12.0 ± 2.0 (0.47 ± 0.08)

mm (in)

After completion of adjustment, verify the points below

1. Verify the following with the weatherstrip removed.
   - (1) When the door glass is raised, the glass stop contact the upper stop simultaneously.
   - (2) The door glass is in the correct position when fully closed.
2. Verify the following with the weatherstrip installed.
   - (1) The door glass raises and lowers smoothly with the door closed.
   - (2) Alignment of the weatherstrip is correct (Convertible top only).


CONVERTIBLE TOP
RETAINER MOUNTING HOLE No.1
15 (0.59)
Ⓐ
E
RETAINER
E
RETAINER MOUNTING HOLE No.5
60 (2.36)
Ⓑ
Ⓒ
RETAINER MOUNTING HOLE No.7
65 (2.56)
F
F
RETAINER MOUNTING HOLE No.8
24 (0.94)
Ⓓ
RETAINER
a
b
GLASS
SEC. E-E
DETACHABLE HARD TOP
RETAINER MOUNTING HOLE No.1
15 (0.59)
Ⓐ
65 (2.56)
E
Ⓑ
RETAINER
E
Ⓒ
RETAINER MOUNTING HOLE No.3
16 (0.62)
RETAINER MOUNTING HOLE No.5
F
F
RETAINER MOUNTING HOLE No.6
24 (0.94)
Ⓓ
RETAINER
c
GLASS
d
SEC. F-F

	a	b
Ⓐ	9.4 ± 2.0 (0.37 ± 0.08)	9.3 ± 2.0 (0.37 ± 0.08)
Ⓑ	9.1 ± 2.0 (0.36 ± 0.08)	7.4 ± 2.0 (0.29 ± 0.08)

	c	d
Ⓒ	5.8 ± 2.0 (0.23 ± 0.08)	12.5 ± 2.0 (0.49 ± 0.08)
Ⓓ	11.1 ± 2.0 (0.44 ± 0.08)	12.0 ± 2.0 (0.47 ± 0.08)

mm (in)

05U0SX-017

DOOR LOCK AND OPENER

COMPONENTS

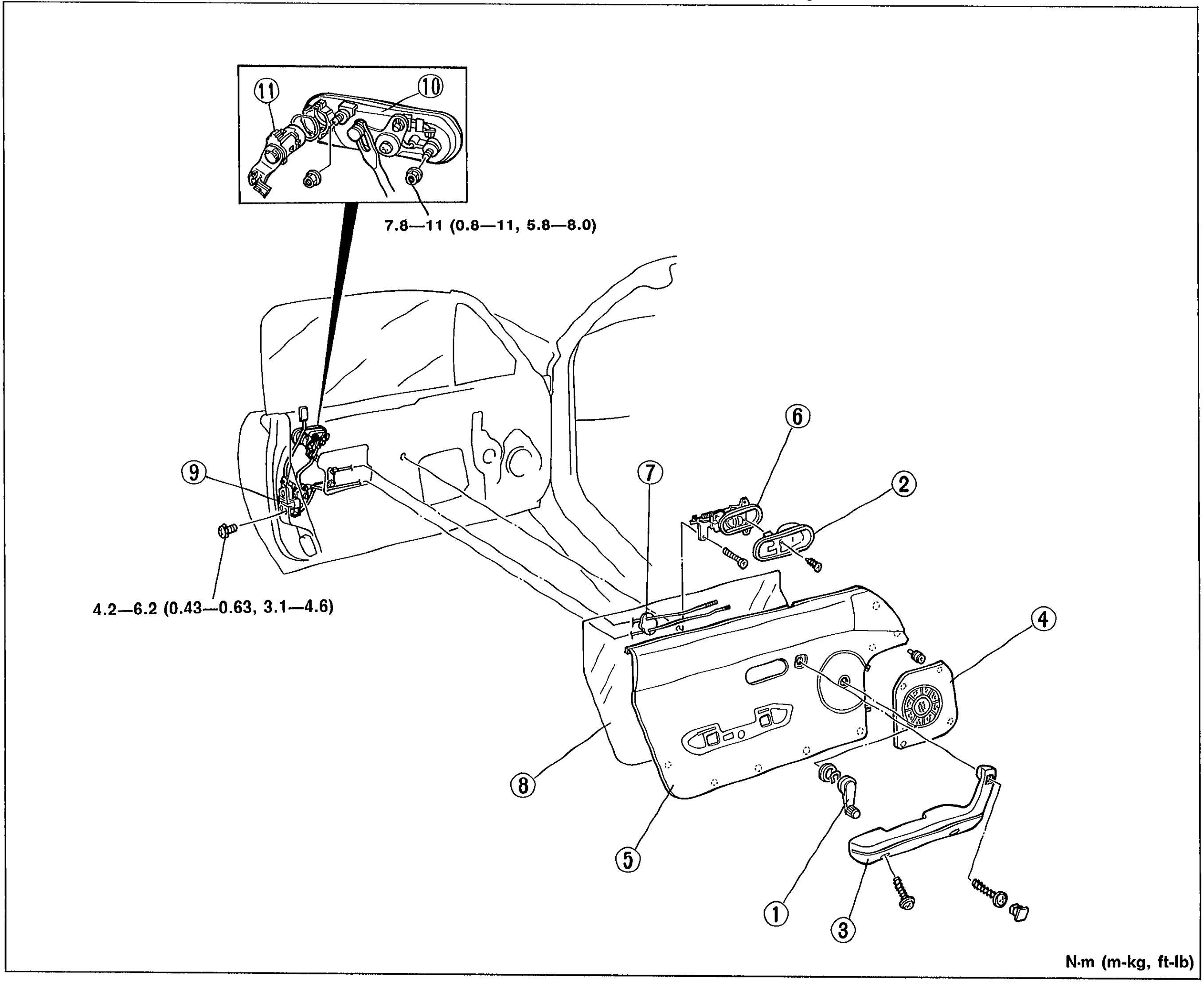
Caution
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)**

Removal / Installation

1. Disconnect the negative battery cable.
2. Remove in the order shown in the figure.
3. Install in the reverse order of removal.

Caution
- **Remove the door screen carefully so that it may be reused.**

Note
- **Raise the door glass fully to remove the door lock assembly.**



05U0SX-018

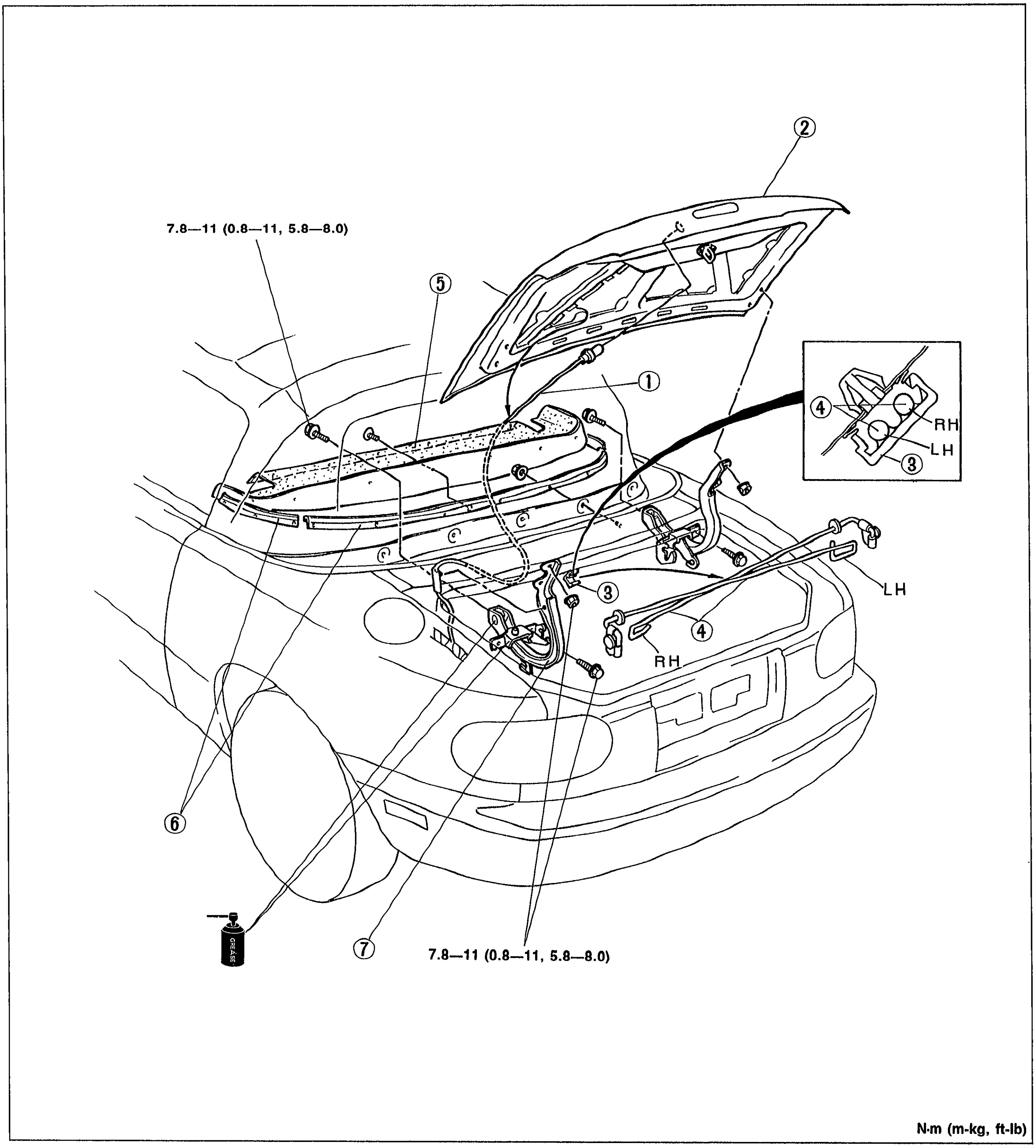
1. Regulator handle
   Removal Note .. page S–10
   Installation Note page S–10
2. Inner handle cover
3. Armrest
4. Speaker grille
   Removal Note .. page S–55
5. Door trim
   Removal Note .. page S–55
6. Inner handle
7. Sealing pad
8. Door screen
9. Door lock assembly
10. Outer handle
11. Key cylinder

TRUNK LID

COMPONENTS

Removal / Installation

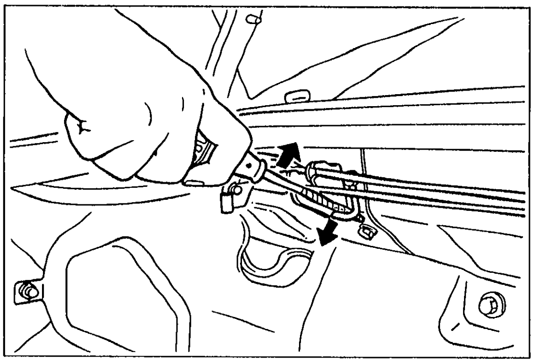
1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.



②
7.8—11 (0.8—11, 5.8—8.0)
⑤
①
④
RH
LH
③
③
LH
④
RH
⑥
GREASE
⑦
7.8—11 (0.8—11, 5.8—8.0)
N·m (m-kg, ft-lb)

05U0SX-019

1. Wire harness
2. Trunk lid
   Adjustment .... page S–17
3. Rod holder
4. Balance spring
   Removal Note .. page S–17
   Adjustment .... page S–17
5. Rear package trim
6. Set plate
7. Hinge



05U0SX-020

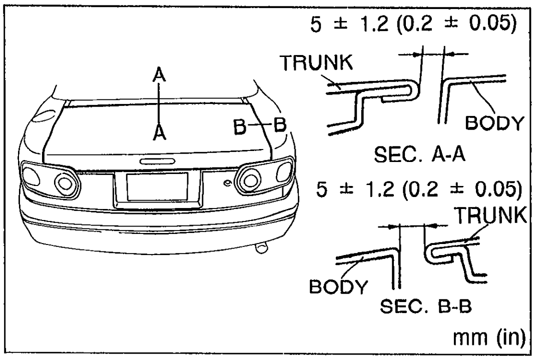
Removal Note

Balance spring

1. Lift the balance spring with a protected screwdriver.
2. Remove the balance spring.

Warning

- **Use care when removing the balance spring; personal injury could result.**

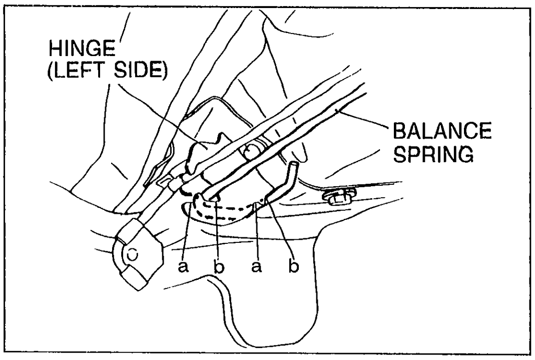

5 ± 1.2 (0.2 ± 0.05)
TRUNK
A
A
B
B
BODY
SEC. A-A
5 ± 1.2 (0.2 ± 0.05)
TRUNK
BODY
SEC. B-B
mm (in)

05U0SX-021

Adjustment

Trunk lid

Loosen the trunk lid mounting nuts and adjust as shown.


HINGE
(LEFT SIDE)
BALANCE
SPRING
a
b
a
b

05U0SX-022

Balance spring

Slide the balance spring to the desired position as described below with a protected screwdriver.

Tension	Set position Hinge	a	b
Standard	Left side		○
	Right side	○	
Increase	Left side	○	
	Right side	○	
Decrease	Left side		○
	Right side		○

○: Indicated position

Warning

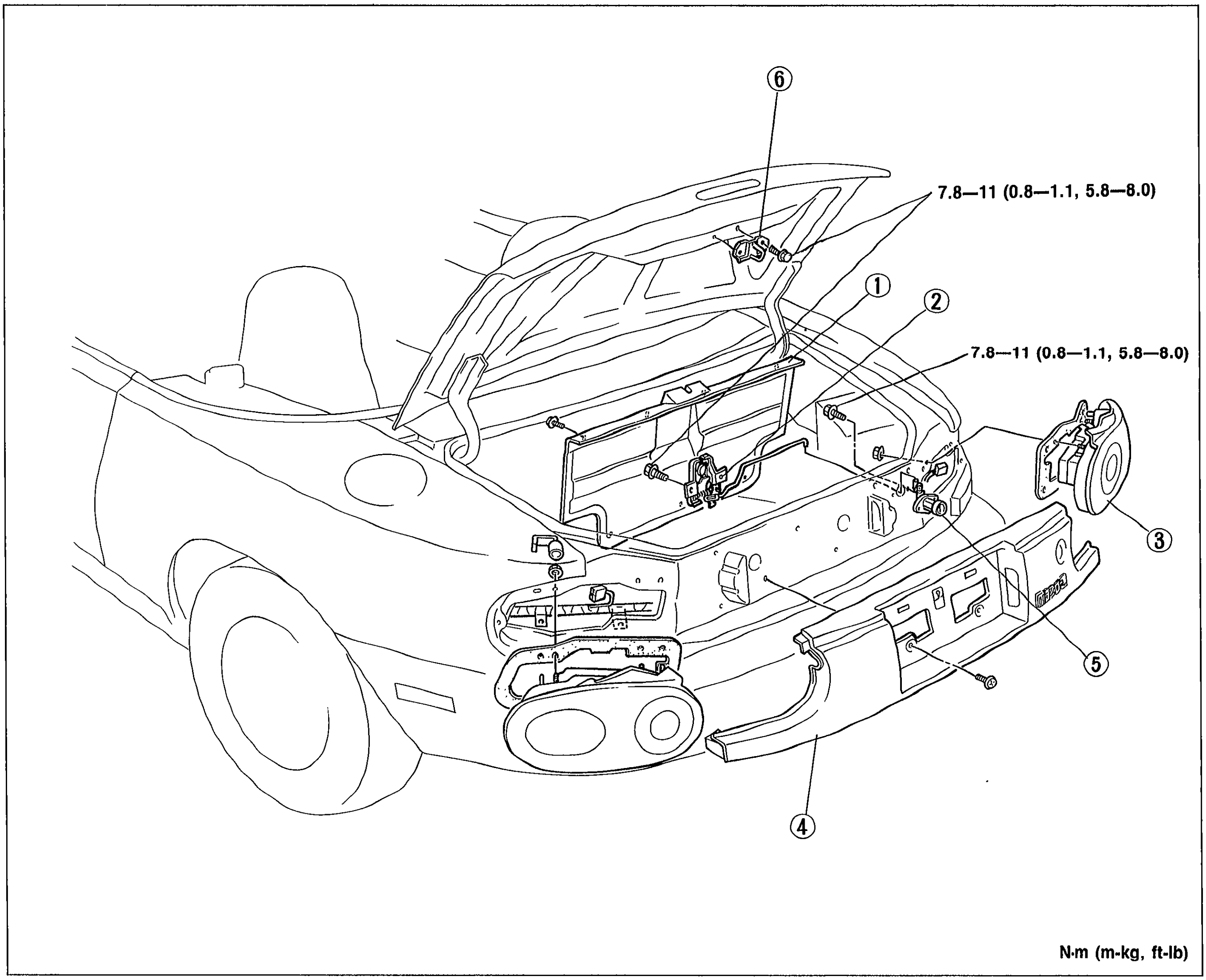
- **Use care when moving the balance spring; personal injury could result.**

TRUNK LID LOCK AND OPENER

COMPONENTS

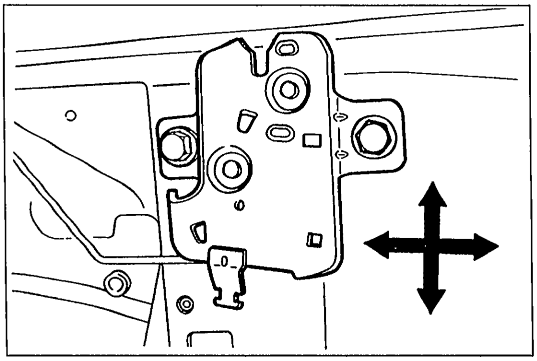
Removal / Installation

1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.



05U0SX-023

1. Trunk end trim
2. Trunk lid lock assembly
   Adjustment .... below
3. Rear combination light
   Removal....................................... Section T
4. Rear finisher
   Removal Note............................ page S–28
5. Key cylinder
6. Striker



05U0SX-024

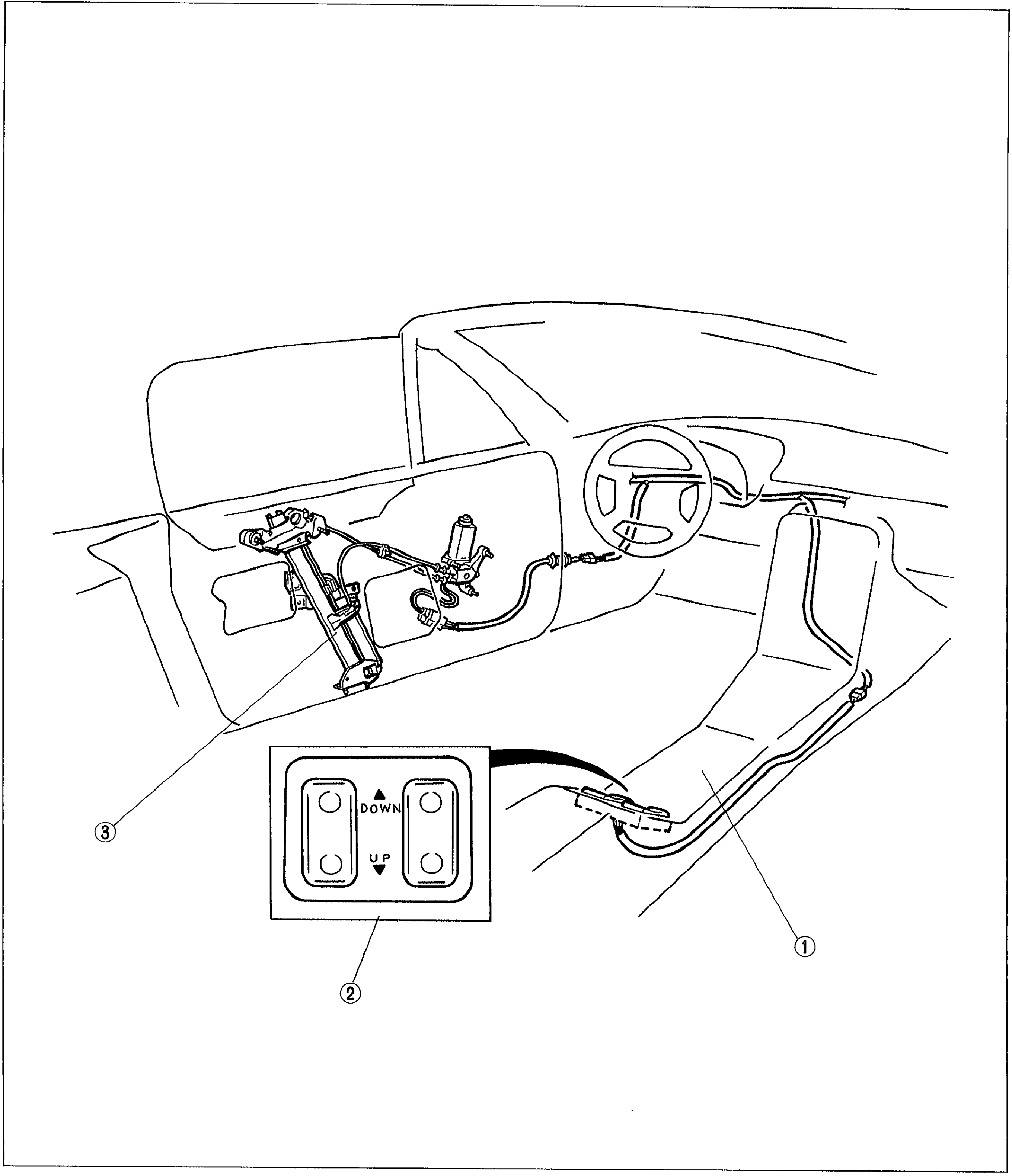
Adjustment

Trunk lid lock assembly

Verify that the trunk lid can be closed easily and whether there is any looseness. If necessary, loosen the lock assembly mounting bolts and adjust the lock assembly.

POWER WINDOW SYSTEM

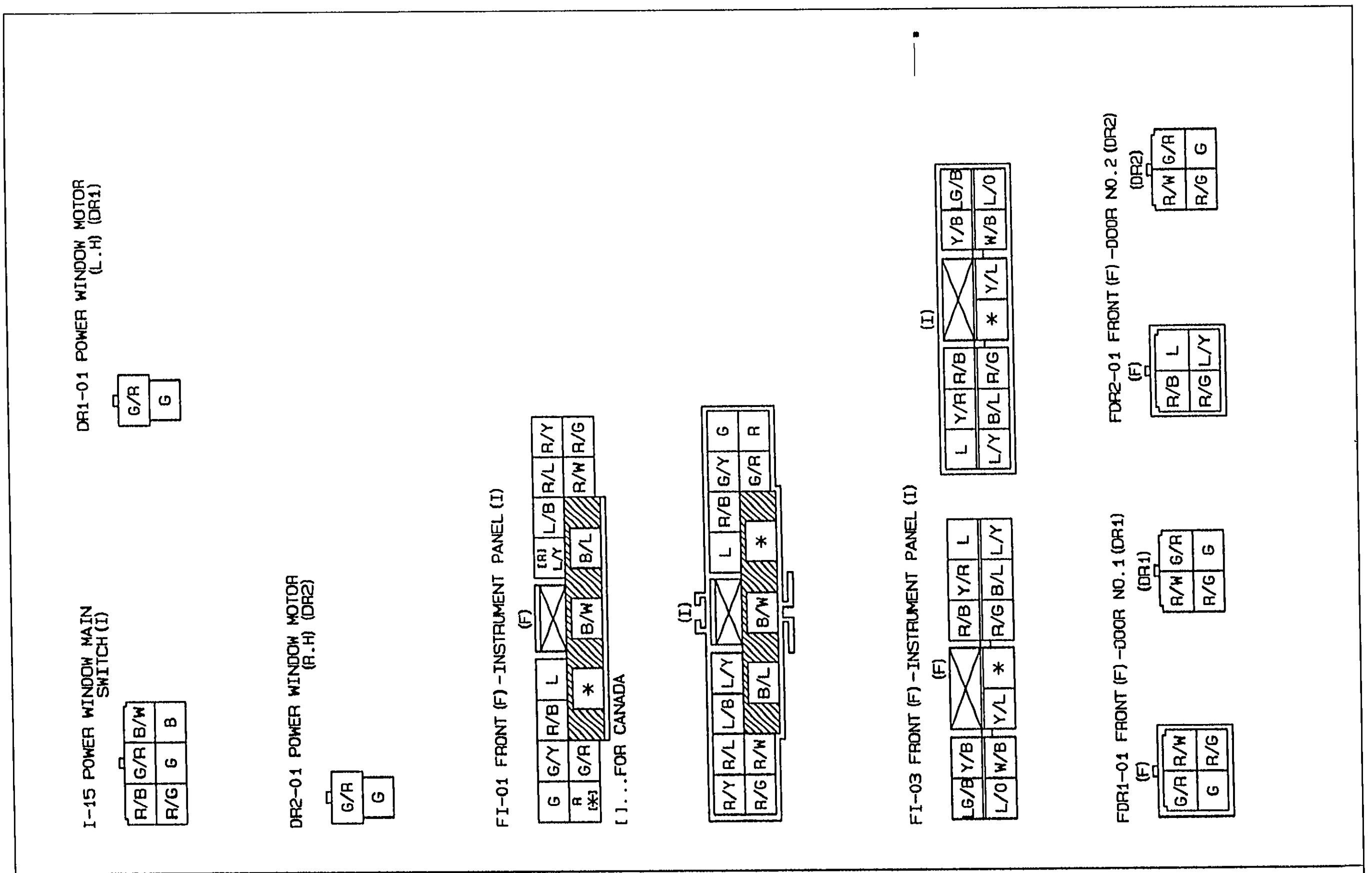
STRUCTURAL VIEW



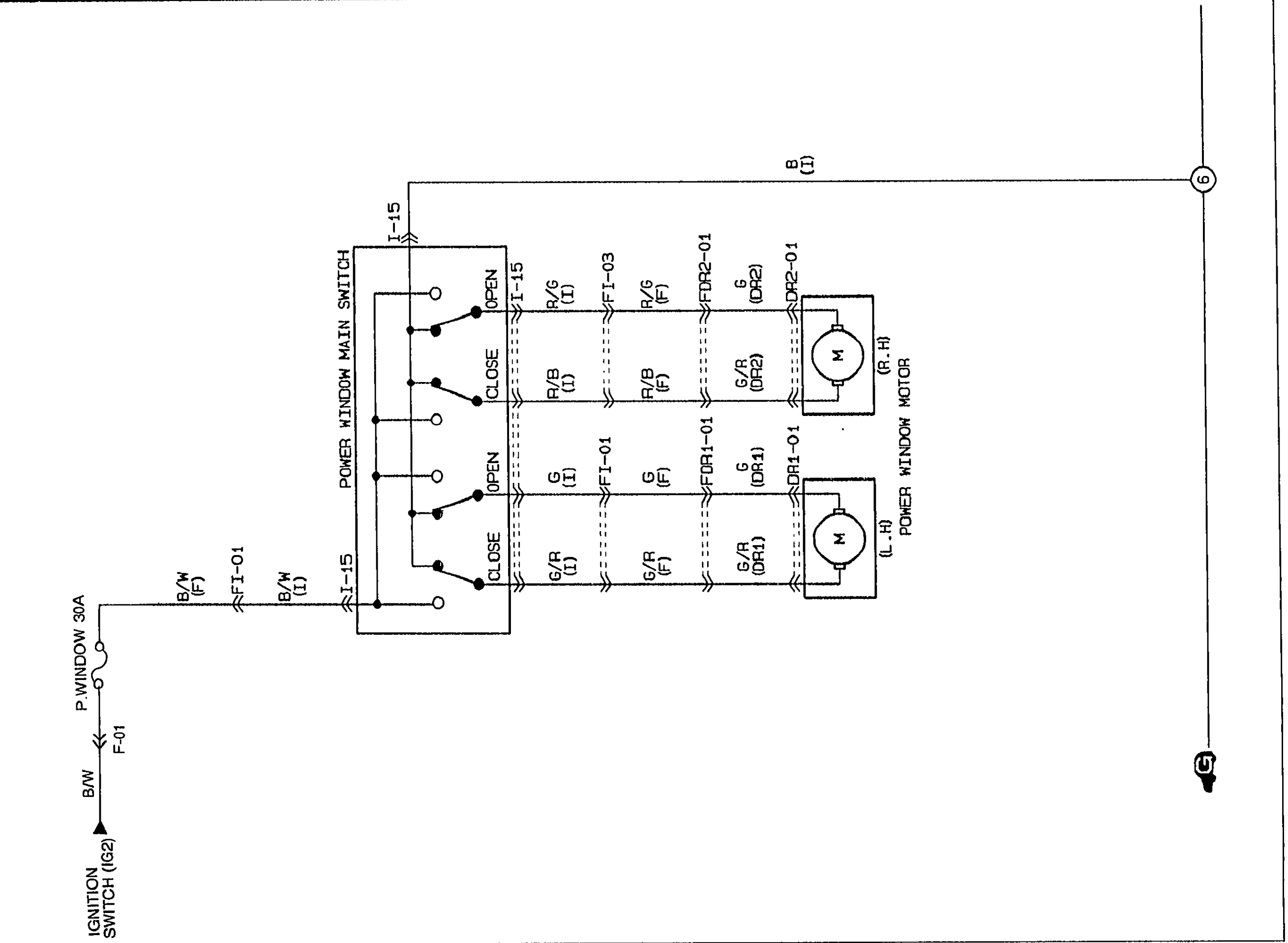
05U0SX-025

1. Rear console
   - Removal / Installation .... page S–50
2. Power window main switch
   - Removal / Installation .... page S–50
   - Inspection .... page S–22
3. Power window regulator
   - Removal / Installation .... page S– 9

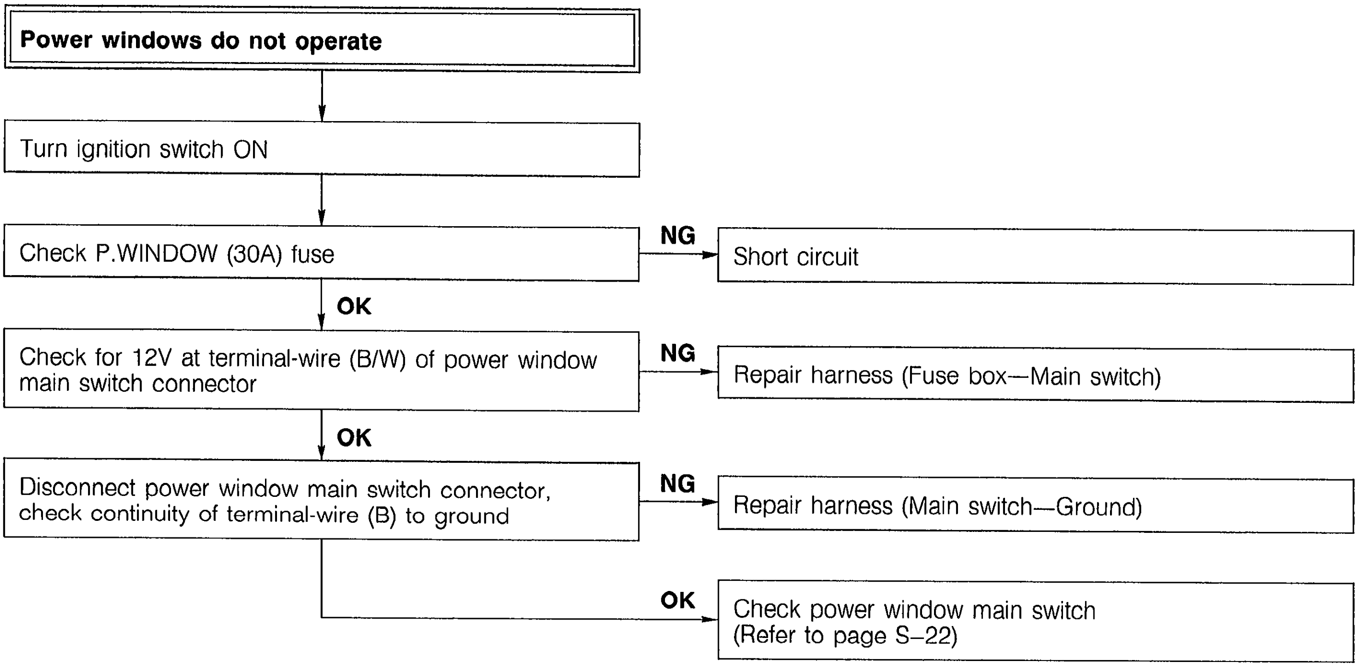
TROUBLESHOOTING GUIDE


DR1-01 POWER WINDOW MOTOR (L.H) (DR1)
G/R
G
I-15 POWER WINDOW MAIN SWITCH (I)
R/B G/R B/W
R/G G B
DR2-01 POWER WINDOW MOTOR (R.H) (DR2)
G/R
G
FI-01 FRONT (F)-INSTRUMENT PANEL (I)
(F)
(I)
[ ]...FOR CANADA
G G/Y R/B L L/B R/L R/Y
R [*] G/R * B/W [R] L/Y B/L R/W R/G
R/Y R/L L/B L/Y L R/B G/Y G
R/G R/W B/L B/W * G/R R
FI-03 FRONT (F)-INSTRUMENT PANEL (I)
(F)
(I)
LG/B Y/B Y/L R/B Y/R L
L/O W/B * R/G B/L L/Y
L Y/R R/B * Y/B LG/B
L/Y B/L R/G Y/L W/B L/O
FDR1-01 FRONT (F)-DOOR NO.1 (DR1)
(F)
(DR1)
G/R R/W
G R/G
R/W G/R
R/G G
FDR2-01 FRONT (F)-DOOR NO.2 (DR2)
(F)
(DR2)
R/B L
R/G L/Y
R/W G/R
R/G G

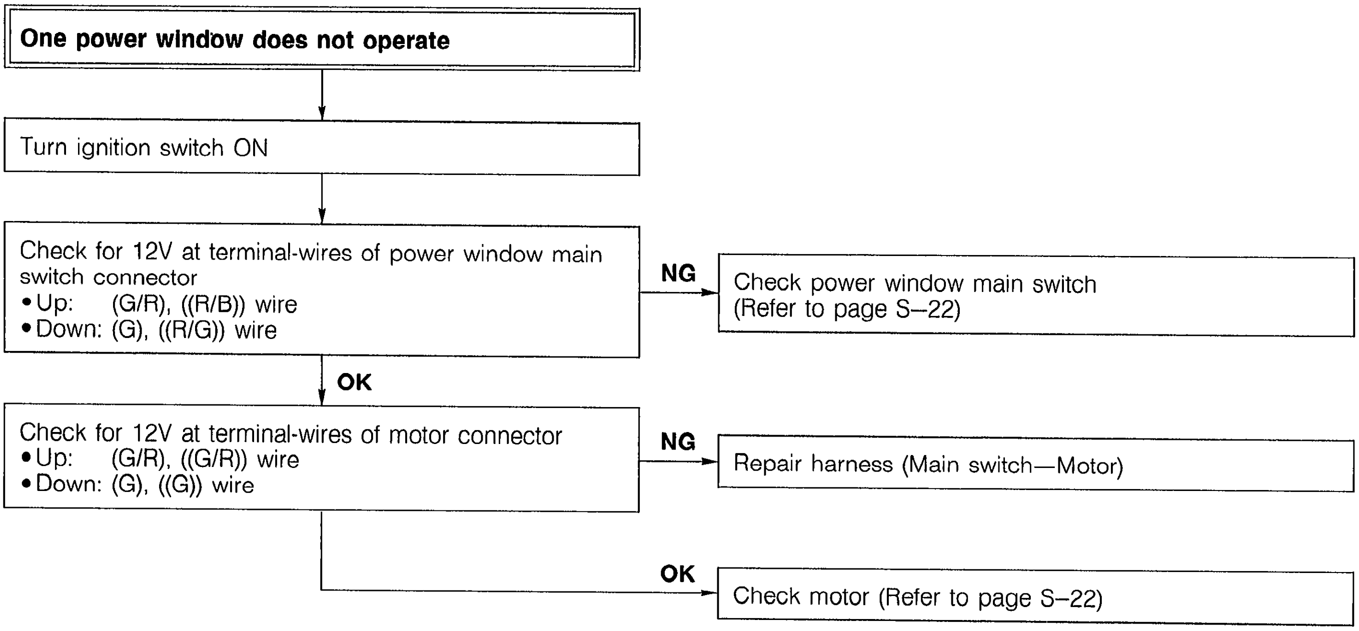
CIRCUIT DIAGRAM


IGNITION SWITCH (IG2)
B/W
F-01
P.WINDOW 30A
B/W (F)
FI-01
B/W (I)
I-15
POWER WINDOW MAIN SWITCH
CLOSE
OPEN
CLOSE
OPEN
I-15
B (I)
6
G/R (I)
G/R (F)
G/R (DR1)
G (I)
FI-01
G (F)
FDR1-01
G (DR1)
DR1-01
R/B (I)
R/B (F)
G/R (DR2)
I-15
R/G (I)
FI-03
R/G (F)
FDR2-01
G (DR2)
DR2-01
M
M
(L.H)
(R.H)
POWER WINDOW MOTOR

05U0SX-026

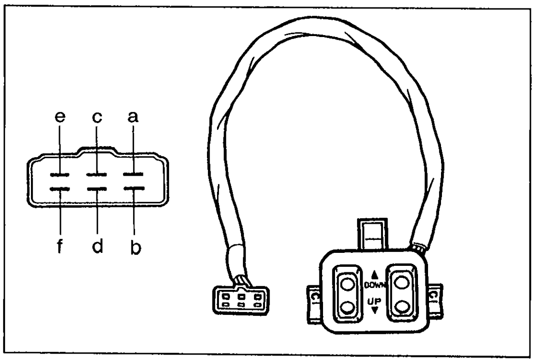

Power windows do not operate
Turn ignition switch ON
Check P.WINDOW (30A) fuse
NG
Short circuit
OK
Check for 12V at terminal-wire (B/W) of power window main switch connector
NG
Repair harness (Fuse box—Main switch)
OK
Disconnect power window main switch connector, check continuity of terminal-wire (B) to ground
NG
Repair harness (Main switch—Ground)
OK
Check power window main switch (Refer to page S–22)

05U0SX-027


One power window does not operate
Turn ignition switch ON
Check for 12V at terminal-wires of power window main switch connector
• Up: (G/R), ((R/B)) wire
• Down: (G), ((R/G)) wire
NG
Check power window main switch (Refer to page S–22)
OK
Check for 12V at terminal-wires of motor connector
• Up: (G/R), ((G/R)) wire
• Down: (G), ((G)) wire
NG
Repair harness (Main switch—Motor)
OK
Check motor (Refer to page S–22)

(( )): Passenger side

05U0SX-028



05U0SX-029

POWER WINDOW MAIN SWITCH

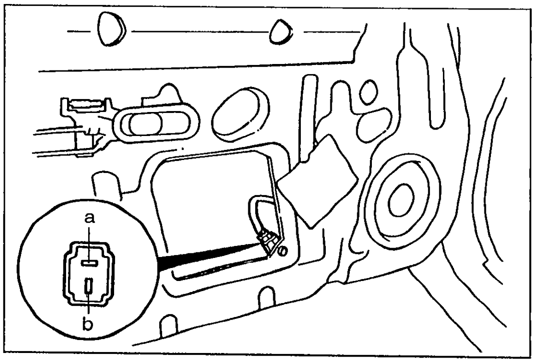
Inspection

1. Check for continuity between terminals of the switch with an ohmmeter.

Switch	Driver side				Passenger side			
Position / Terminal	a	b	c	d	a	b	e	f
UP	○		○		○		○	
		○		○		○		○
OFF		○	○	○		○	○	○
DOWN	○			○	○			○
		○	○			○	○	

○—○: Indicates continuity

2. If not as specified, replace the switch.



05U0SX-030

POWER WINDOW MOTOR

Inspection

1. Connect 12V to terminal a and ground terminal b of the motor connector. Verify that the motor operates.
2. Reverse the above connections and check for reverse operation of the motor.
3. If not as specified, replace the motor.

FUEL FILLER LID OPENER

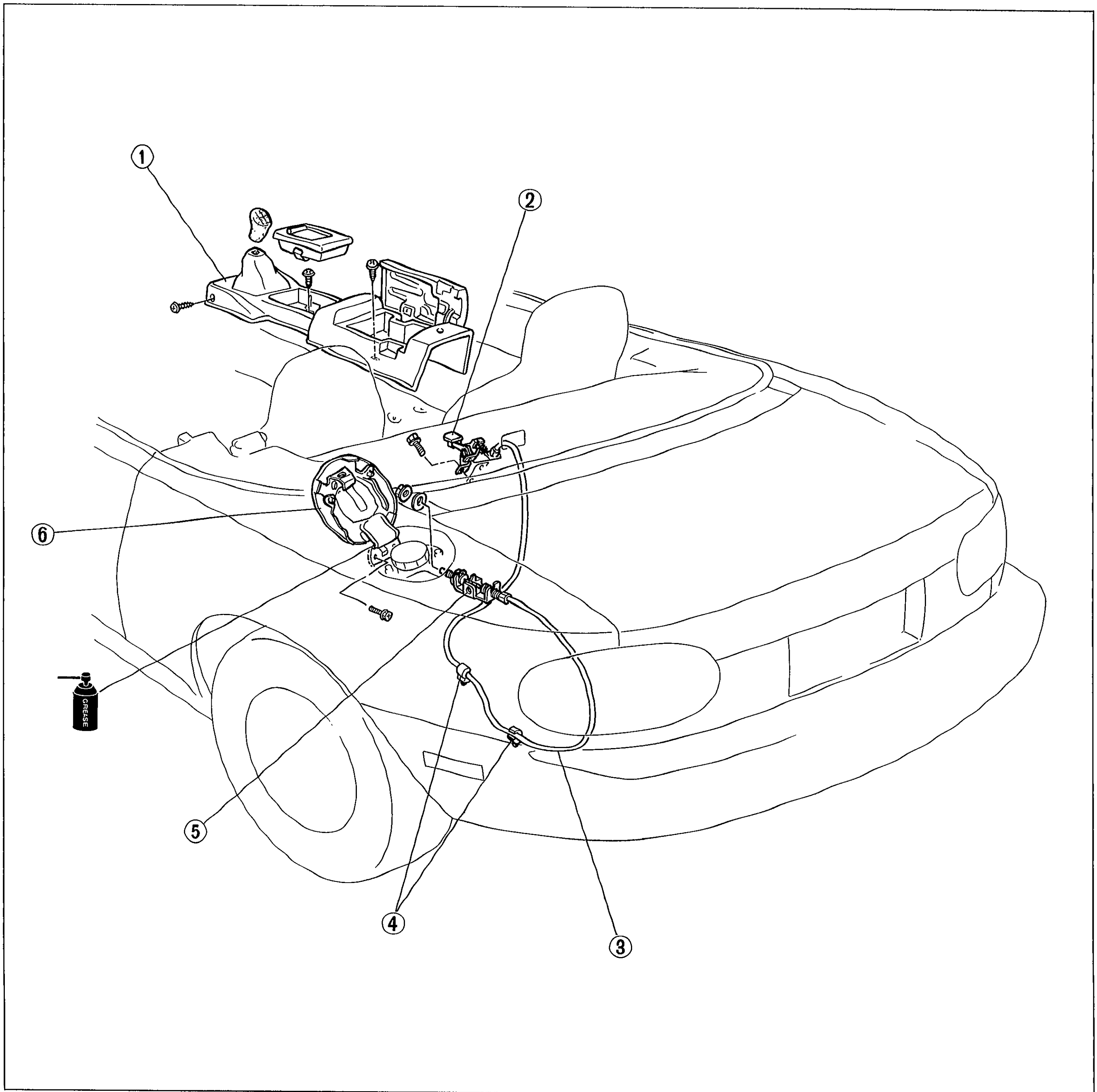
COMPONENTS

Removal / Installation

Note

- **Remove the rear console for removal of the opener lever.**
- **Remove the rear end mat, rear package trim and bulkhead panel for removal of the cable.**

1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.



05U0SX-031

1. Rear console
   Removal / Installation .... page S–50
2. Opener lever
3. Opener cable
4. Clip
5. Filler lid opener
6. Filler lid

FRONT BUMPER

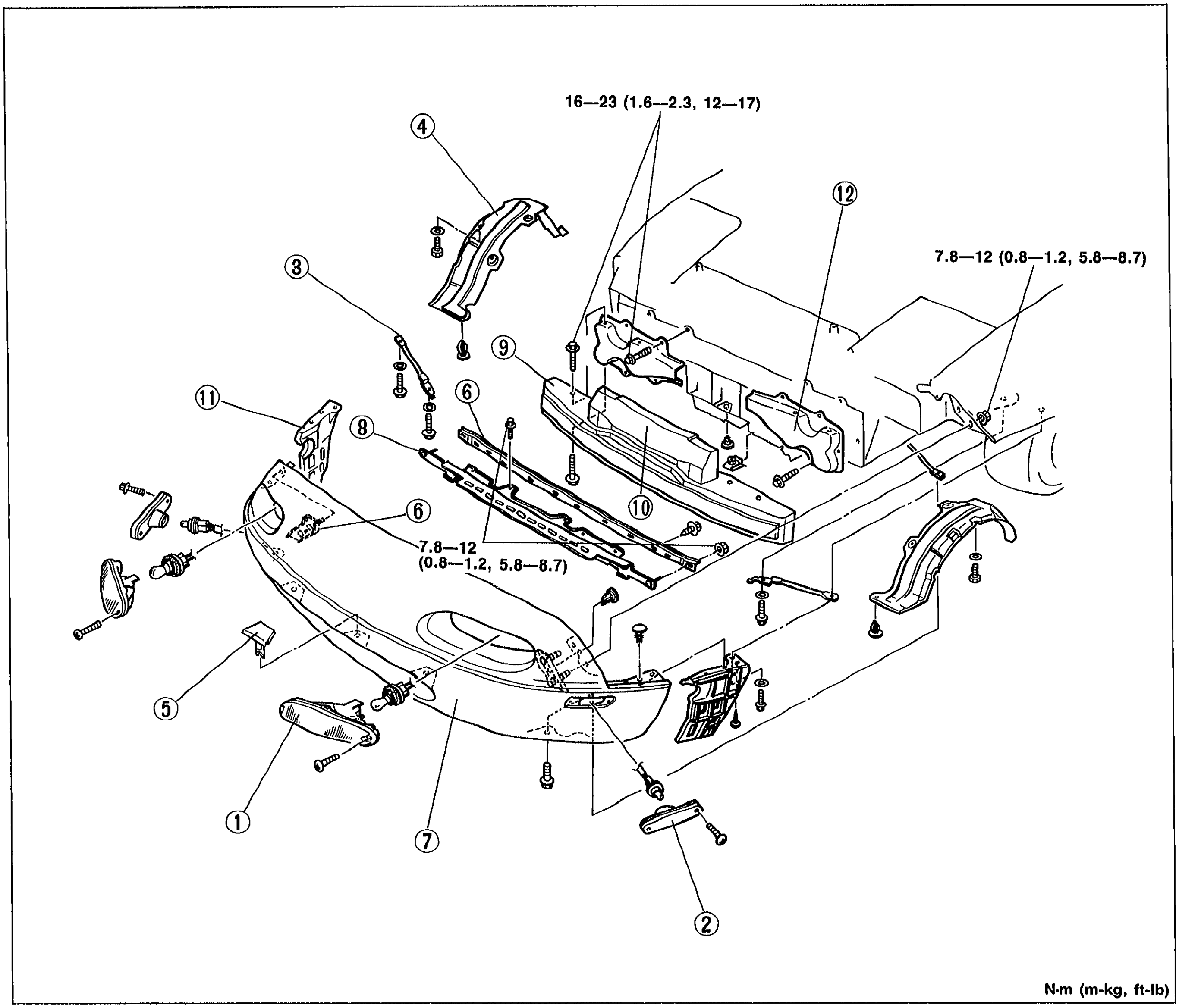
COMPONENTS

Caution
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)**

Removal / Installation

Note
- **Raise the headlights.**

1. Disconnect the negative battery cable.
2. Remove in the order shown in the figure.
3. Install in the reverse order of removal.


16—23 (1.6—2.3, 12—17)
④
⑫
7.8—12 (0.8—1.2, 5.8—8.7)
③
⑨
⑪
⑥
⑧
⑩
⑥
7.8—12
(0.8—1.2, 5.8—8.7)
⑤
①
⑦
②
N·m (m-kg, ft-lb)

05U0SX-032

1. Front combination light
   Removal............. Section T
2. Front side marker light
   Removal............. Section T
3. Fender bracket
4. Mud guard
5. Grille cover
6. Set plate
7. Front fascia
8. Retainer
9. Bumper reinforcement
10. Spacer
11. Front bumper retainer
12. Front bumper bracket

REAR BUMPER

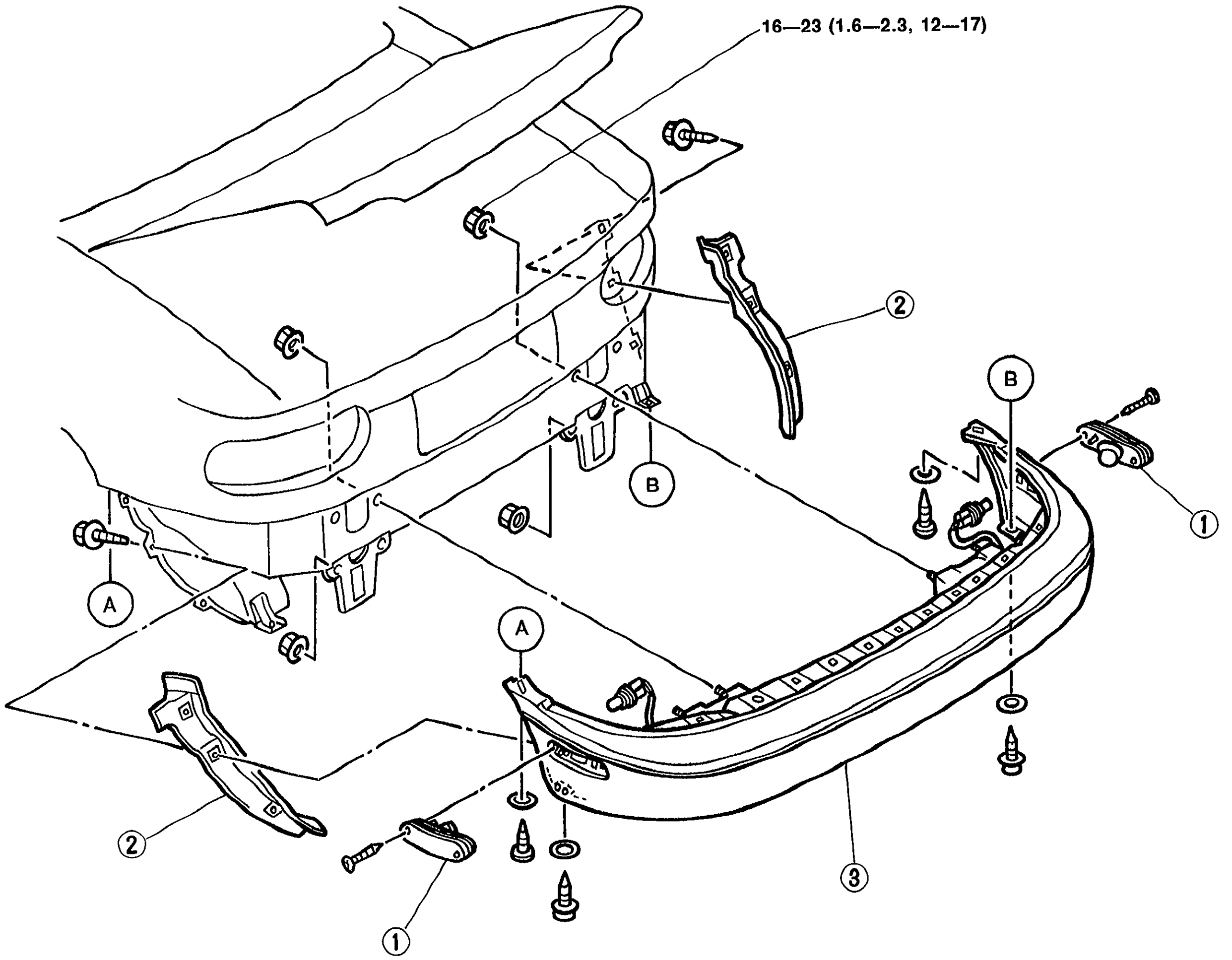
COMPONENTS

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)**

Removal / Installation

1. Disconnect the negative battery cable.
2. Remove in the order shown in the figure.
3. Install in the reverse order of removal.

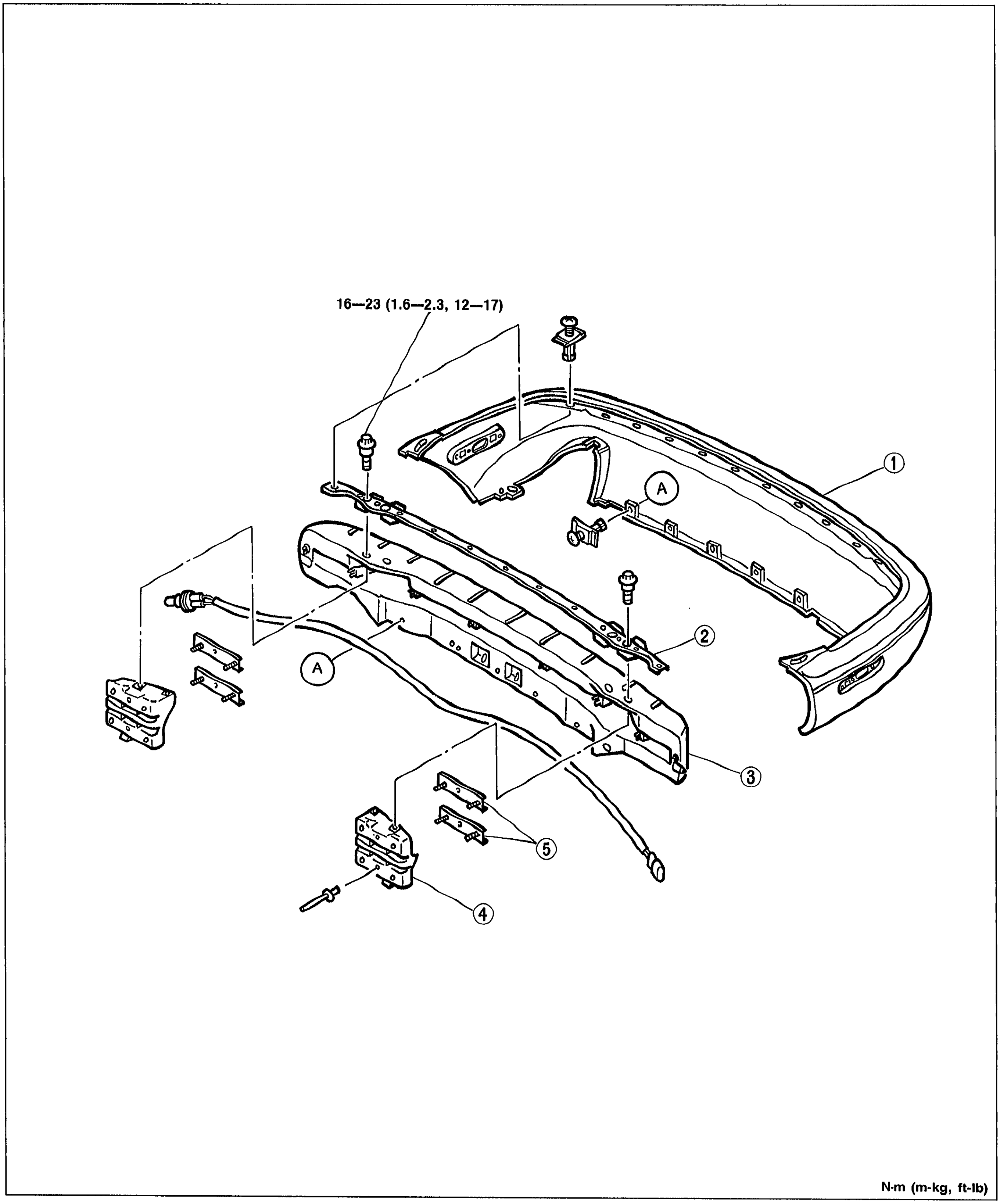


05U0SX-033

1. Rear side marker light
   Removal....................................... Section T
2. Splash shield
3. Rear bumper

Disassembly / Assembly

1. Disassemble in the order shown in the figure.
2. Assemble in the reverse order of disassembly.


16—23 (1.6—2.3, 12—17)
①
②
③
④
⑤
A
A
N·m (m-kg, ft-lb)

05U0SX-034

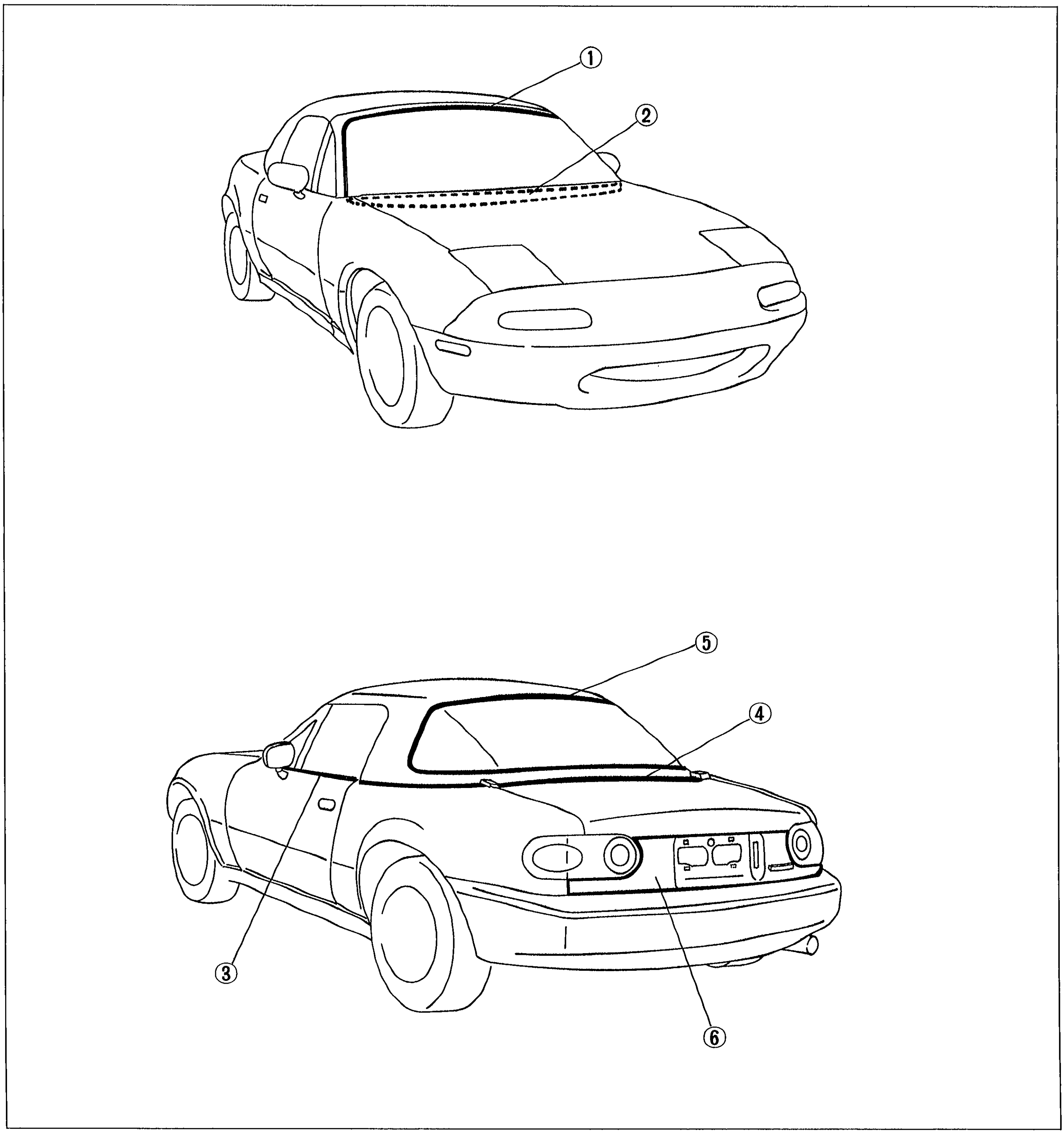
1. Rear fascia
2. Retainer
3. Bumper reinforcement
4. Bumper stay
5. Set plate

MOLDING AND GARNISH

COMPONENTS

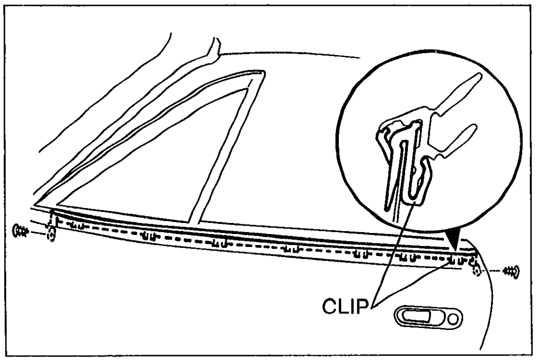
Removal / Installation

1. Remove the parts as shown.
2. Install in the reverse order of removal.



05U0SX-035

1. Windshield molding
   - Installation Note .... page S–28
2. Cowl grille
   - Removal .... page S–35
3. Front beltline molding
   - Removal Note .... page S–28
4. Beltline molding
   - Removal Note .... page S–28
5. Rear window molding (Detachable hard top)
   - Installation Note .... page S–29
6. Rear finisher
   - Removal Note .... page S–28



05U0SX-036

Removal Note

Front beltline molding

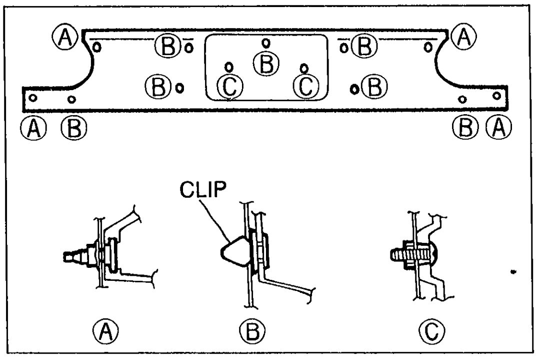
1. Remove the door mirror. (Refer to page S–30.)
2. Remove the front beltline molding.

Caution

- **Do not damage the body.**

Note

- **The clips are where shown in the figure.**



05U0SX-037

Rear finisher

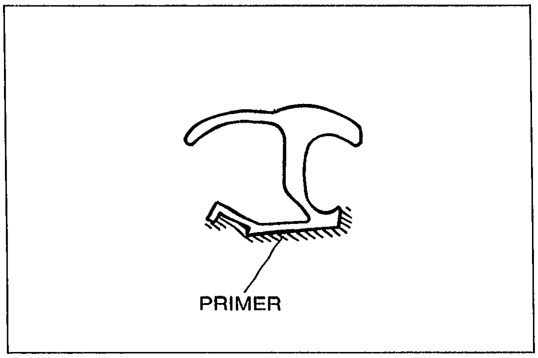
1. Remove the rear combination light. (Refer to Section T.)
2. Remove the rear finisher.

Note

- **The clips are where shown in the figure.**

Beltline molding

Remove the convertible top for removal of the beltline molding. (Refer to page S–61.)



05U0SX-038

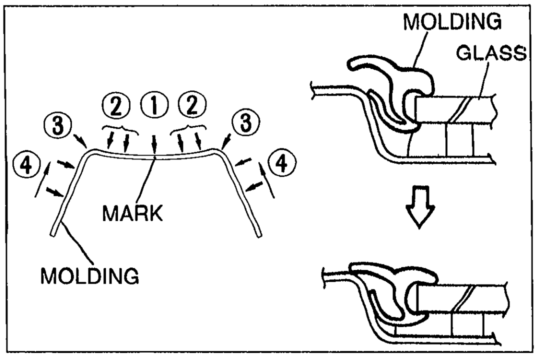
Installation Note

Windshield molding

1. Remove the windshield. (Refer to page S–38.)
2. Install the windshield. (Refer to page S–38.)
3. Apply primer with a brush to the bonding area of the new upper molding, and allow it to dry for **approx. 30 minutes**.

Caution

- **Keep the area free of dirt and grease. Do not touch the surface. If primer gets on the skin, remove it immediately.**



05U0SX-039

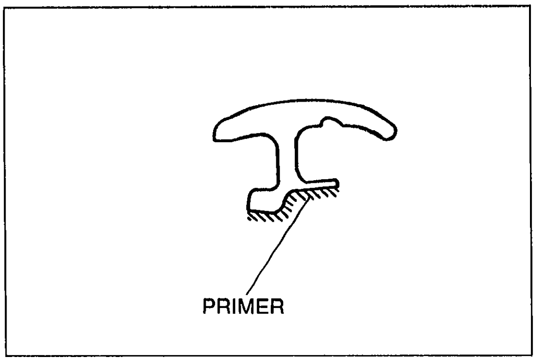
Caution

- **Lower the convertible top to prevent the glass from being pushed out by air pressure if a door is closed.**

4. Align the center mark in the molding with the glass mark (①).
5. Install the upper portions of the molding into the body (②).
6. Push the corner of the molding into the body (③).
7. Push the side portions of the molding into the body, beginning from the bottom (④).
8. Check for water leaks. If a leak is found, wipe the water off well and repeat the installation.

Hardening time of repair seal

Temperature	Surface hardening time	Time required until car can be put into service
5°C (41°F)	Approx. 1.5 hr	12 hr
20°C (68°F)	Approx. 1hr	4 hr
35°C (95°F)	Approx. 10 min	2 hr



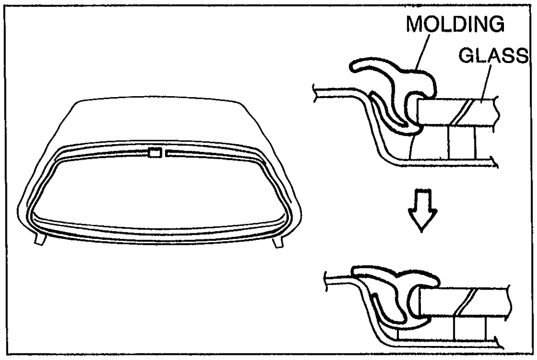
05U0SX-040

Rear window molding (Detachable hard top)

1. Remove the rear window glass. (Refer to page S–42.)
2. Install the rear window glass. (Refer to page S–42.)
3. Apply primer with a brush to the bonding area of the new rear window molding, and allow it to dry for **approx. 30 minutes**.

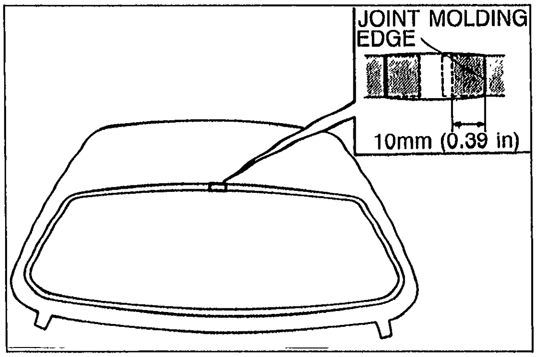
Caution

- **Keep the area free of dirt and grease. Do not touch the surface. If primer gets on the hand, remove it immediately.**



05U0SX-041

4. Install the rear window molding to the glass, as shown.



05U0SX-042

5. If the molding is too long, cut the excess molding **10mm (0.39 in)** inside the joint molding edge.

Hardening time of repair seal

Temperature	Surface hardening time	Time required until car can be put into service
5°C (41°F)	Approx. 1.5 hr	12 hr
20°C (68°F)	Approx. 1hr	4 hr
35°C (95°F)	Approx. 10 min	2 hr

6. Check for water leaks. If a leak is found, wipe the water off well and repeat the installation.

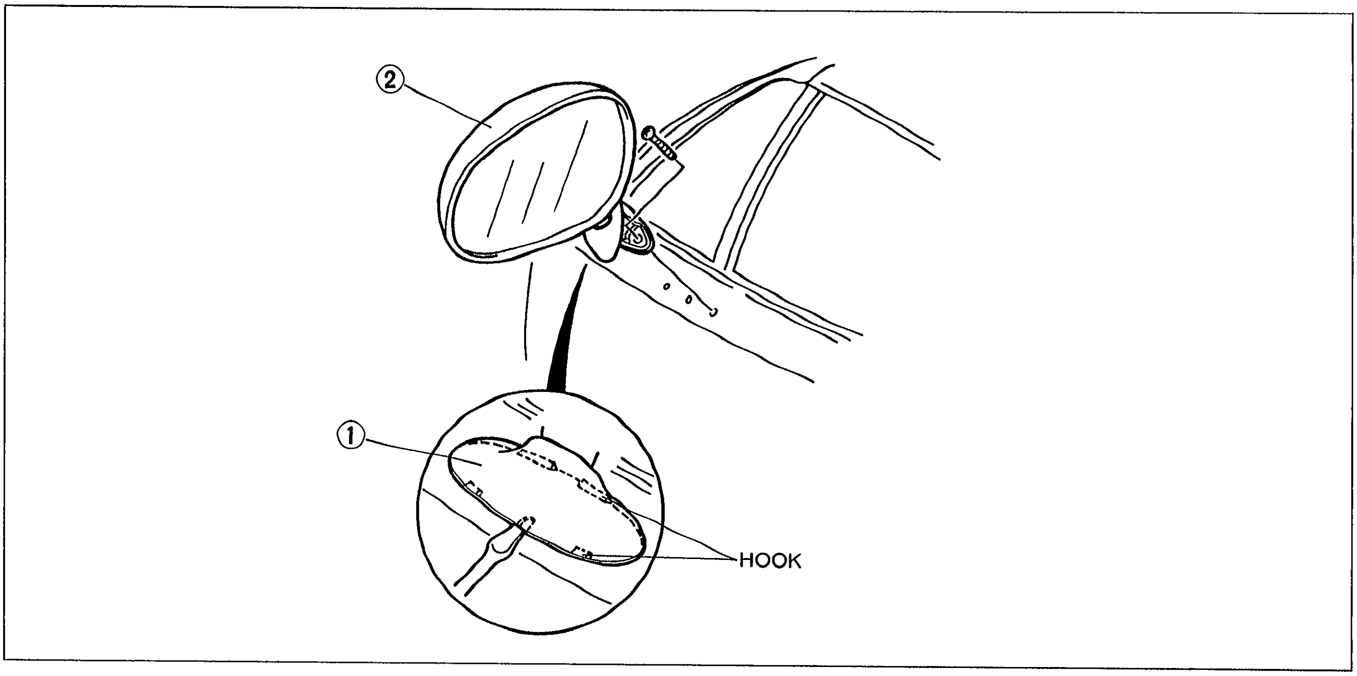
05U0SX-043

DOOR MIRROR

COMPONENTS

Removal / Installation

1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.



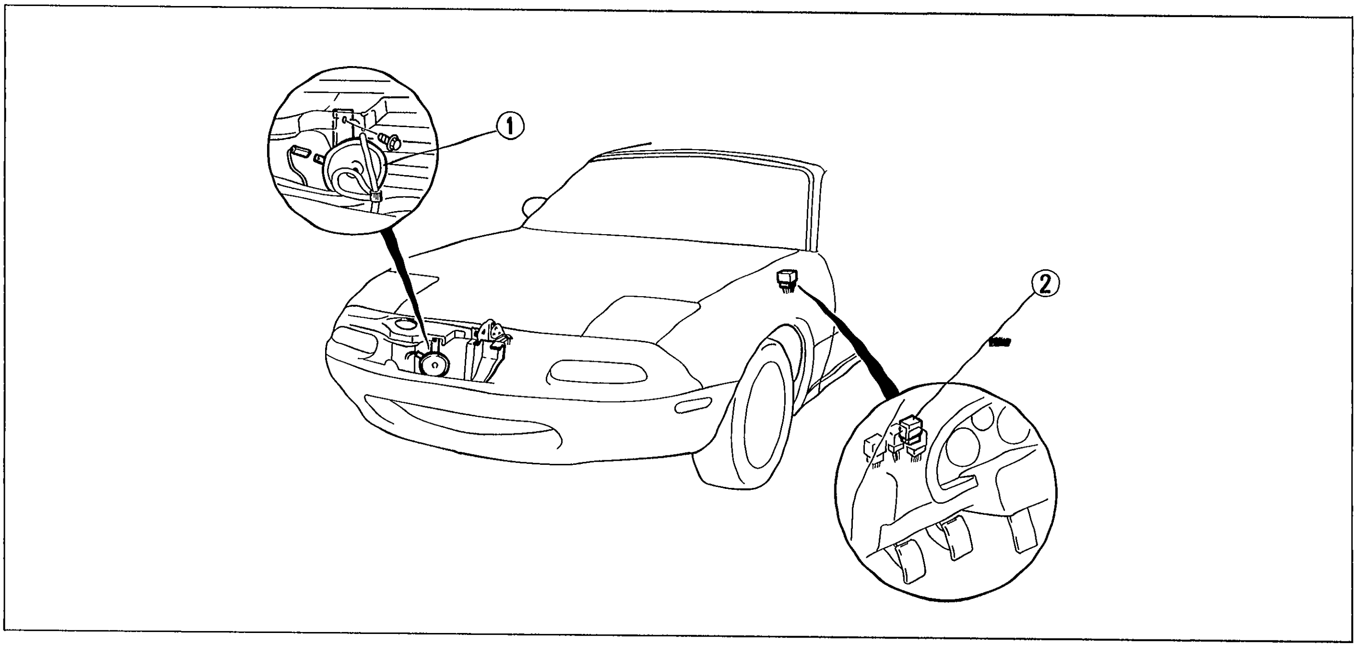
1. Mirror cover
2. Rearview mirror

HORN

COMPONENTS

Removal / Installation

1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.

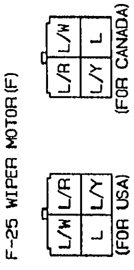


1. Horn
2. Horn relay
   Inspection .... Section T

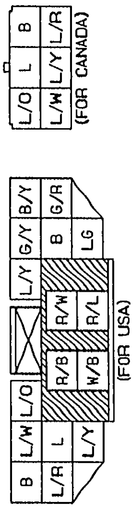
WINDSHIELD WIPER AND WASHER

TROUBLESHOOTING GUIDE

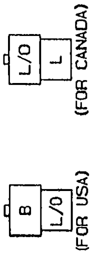
F-25 WIPER MOTOR (F)


L/W
L/R
L
L/Y
(FOR USA)
L/R
L/W
L/Y
L
(FOR CANADA)

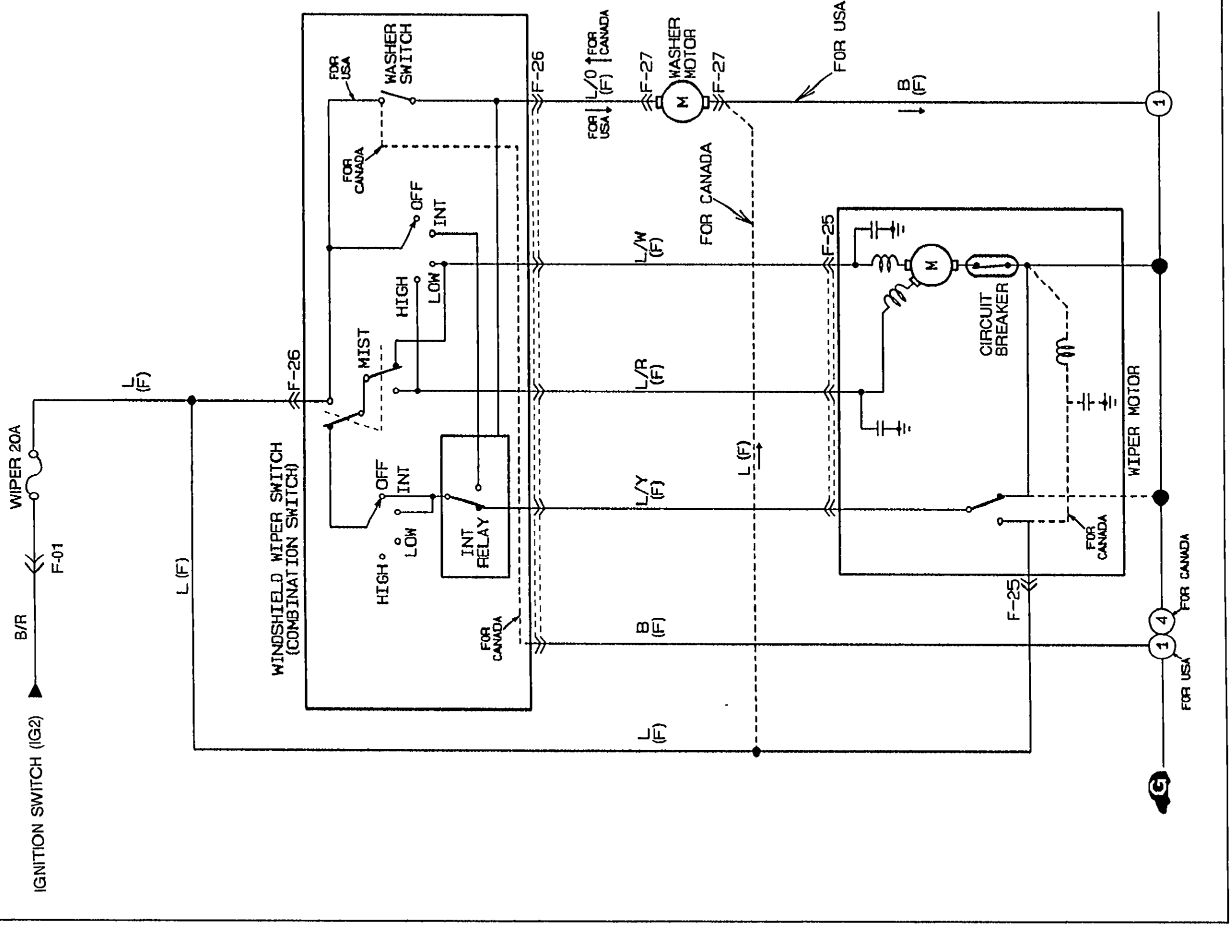
F-26 WINDSHIELD WIPER SWITCH COMBINATION SWITCH (F)

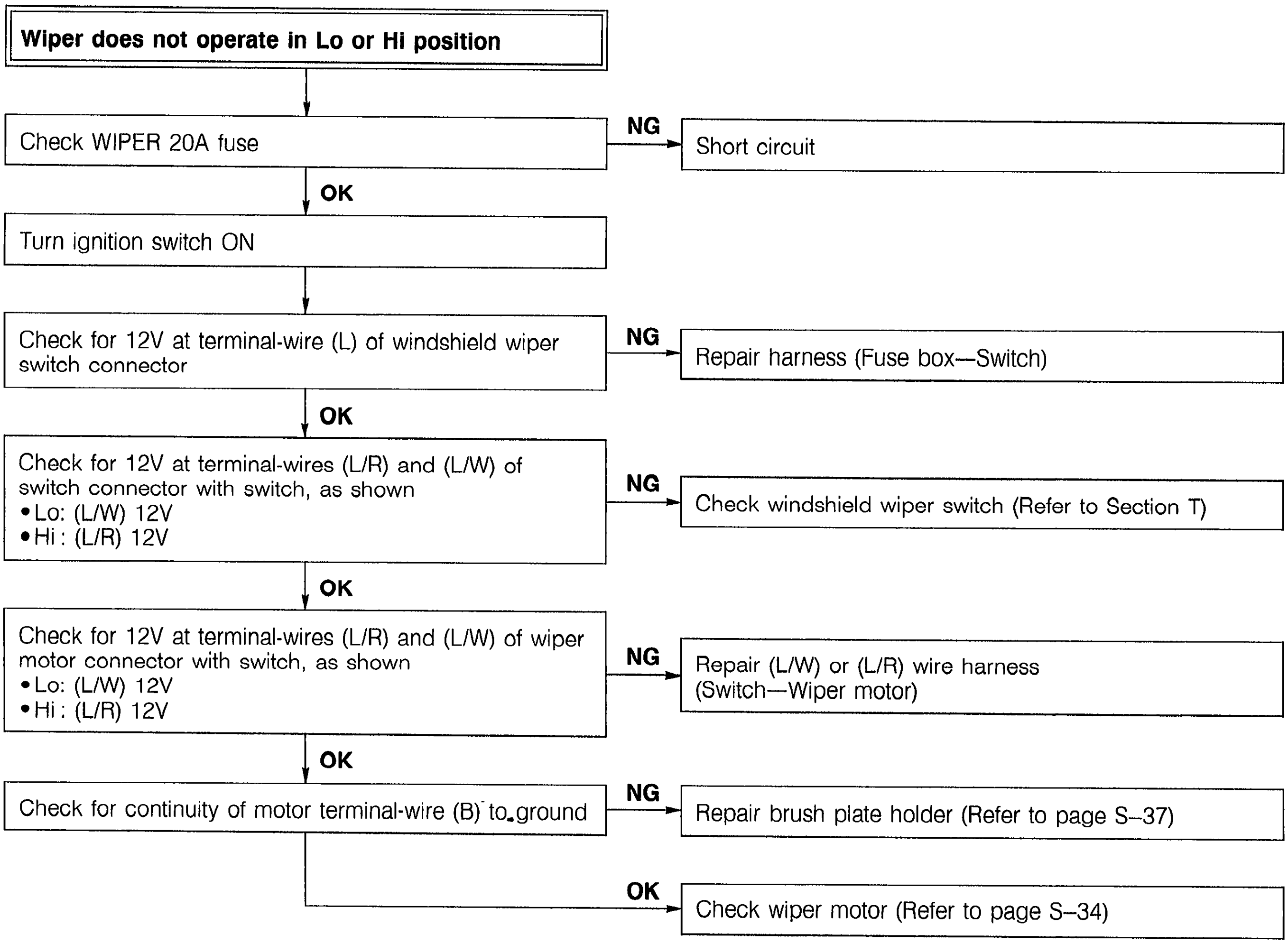

B
L/W
L/O
L/Y
G/Y
B/Y
L/R
L
R/B
R/W
B
G/R
L/Y
W/B
R/L
LG
(FOR USA)
L/O
L
B
L/W
L/Y
L/R
(FOR CANADA)

F-27 WASHER MOTOR (F)


B
L/O
(FOR USA)
L/O
L
(FOR CANADA)

CIRCUIT DIAGRAM


IGNITION SWITCH (IG2)
B/R
F-01
WIPER 20A
L (F)
F-26
WINDSHIELD WIPER SWITCH (COMBINATION SWITCH)
WASHER SWITCH
FOR USA
FOR CANADA
OFF
INT
HIGH
LOW
MIST
INT RELAY
L/O (F)
WASHER MOTOR
F-27
L/W (F)
L/R (F)
L/Y (F)
B (F)
F-25
CIRCUIT BREAKER
WIPER MOTOR
M
1
4
G



Wiper does not operate in Lo or Hi position

Check WIPER 20A fuse

Short circuit

Turn ignition switch ON

Check for 12V at terminal-wire (L) of windshield wiper switch connector

Repair harness (Fuse box—Switch)

Check for 12V at terminal-wires (L/R) and (L/W) of switch connector with switch, as shown
- Lo: (L/W) 12V
- Hi : (L/R) 12V

Check windshield wiper switch (Refer to Section T)

Check for 12V at terminal-wires (L/R) and (L/W) of wiper motor connector with switch, as shown
- Lo: (L/W) 12V
- Hi : (L/R) 12V

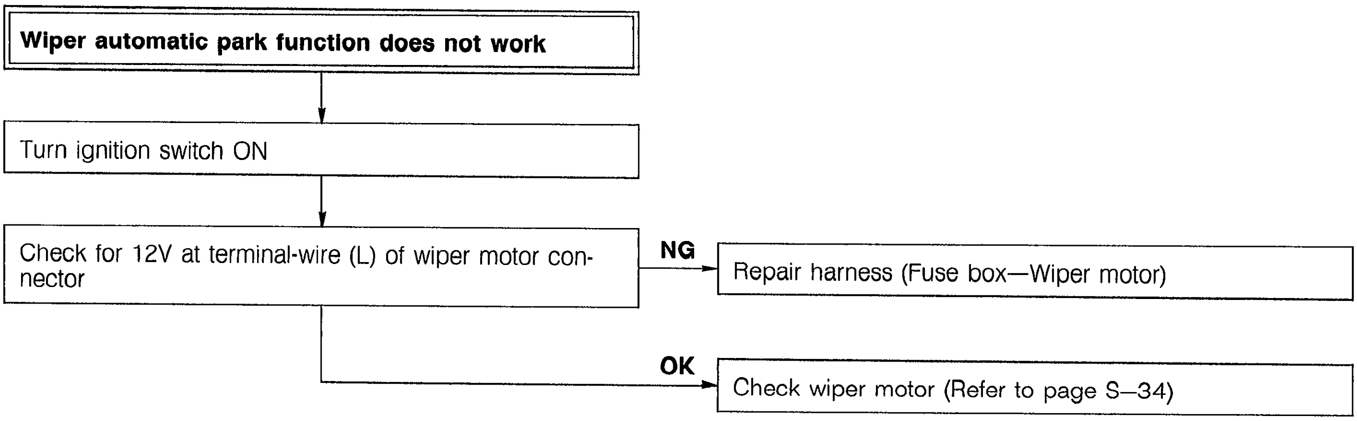
Repair (L/W) or (L/R) wire harness (Switch—Wiper motor)

Check for continuity of motor terminal-wire (B) to ground

Repair brush plate holder (Refer to page S–37)

Check wiper motor (Refer to page S–34)

05U0SX-047



Wiper automatic park function does not work

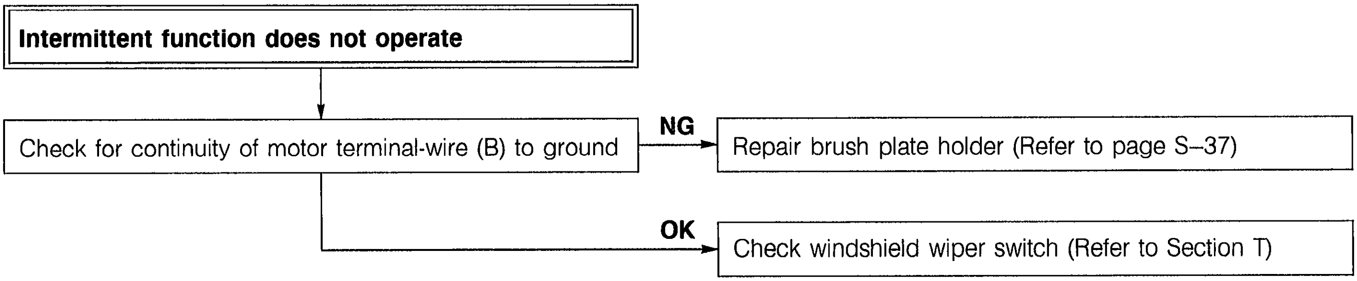
Turn ignition switch ON

Check for 12V at terminal-wire (L) of wiper motor connector

Repair harness (Fuse box—Wiper motor)

Check wiper motor (Refer to page S–34)

05U0SX-048



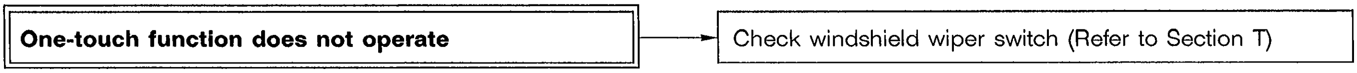
Intermittent function does not operate

Check for continuity of motor terminal-wire (B) to ground

NG → Repair brush plate holder (Refer to page S–37)

OK → Check windshield wiper switch (Refer to Section T)

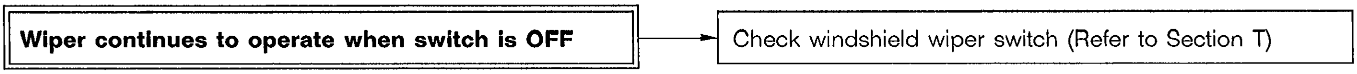
05U0SX-049



One-touch function does not operate

→ Check windshield wiper switch (Refer to Section T)

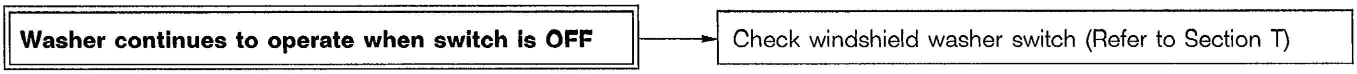
05U0SX-050



Wiper continues to operate when switch is OFF

→ Check windshield wiper switch (Refer to Section T)

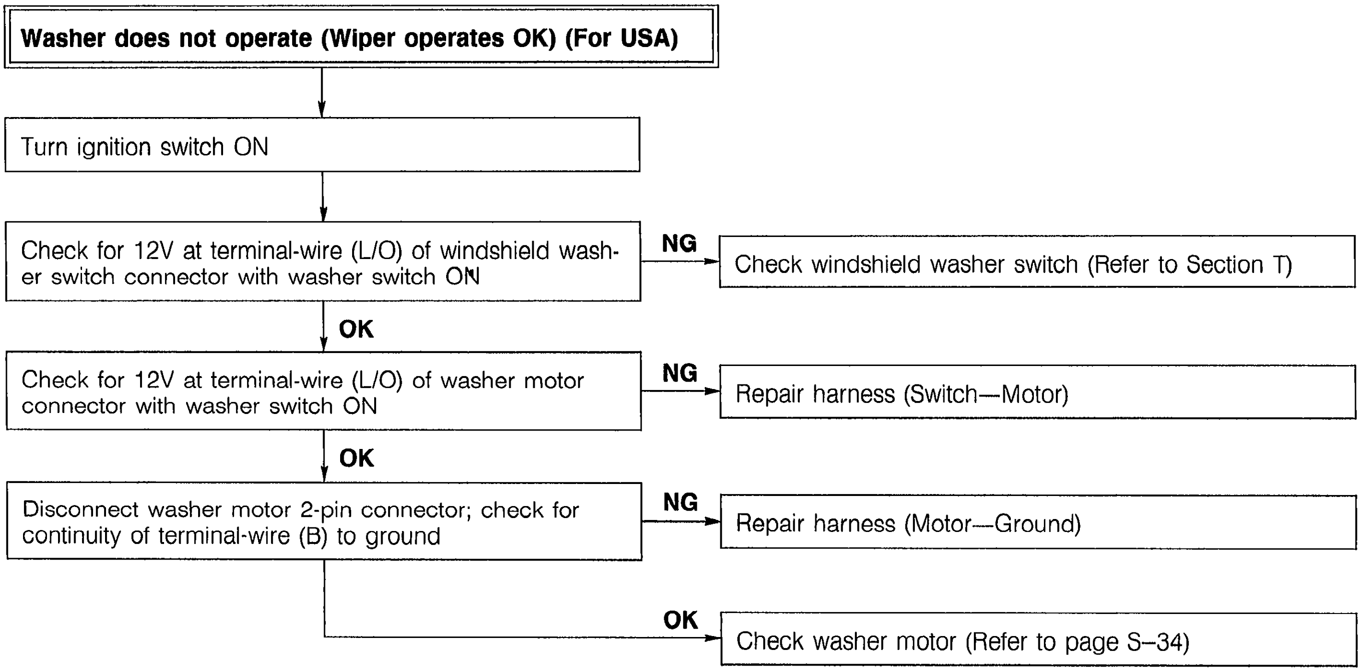
05U0SX-051



Washer continues to operate when switch is OFF

→ Check windshield washer switch (Refer to Section T)

05U0SX-052



Washer does not operate (Wiper operates OK) (For USA)

Turn ignition switch ON

Check for 12V at terminal-wire (L/O) of windshield washer switch connector with washer switch ON

NG → Check windshield washer switch (Refer to Section T)

OK

Check for 12V at terminal-wire (L/O) of washer motor connector with washer switch ON

NG → Repair harness (Switch—Motor)

OK

Disconnect washer motor 2-pin connector; check for continuity of terminal-wire (B) to ground

NG → Repair harness (Motor—Ground)

OK → Check washer motor (Refer to page S–34)

05U0SX-053

Washer does not operate (Wiper operates OK) (For Canada)

Turn ignition switch ON

Check for 12V at terminal-wire (L) of windshield washer motor connector with washer switch ON — NG → Repair harness (Fuse—Motor)

OK

Check washer motor (Refer to page S–34) — NG → Replace washer motor

OK

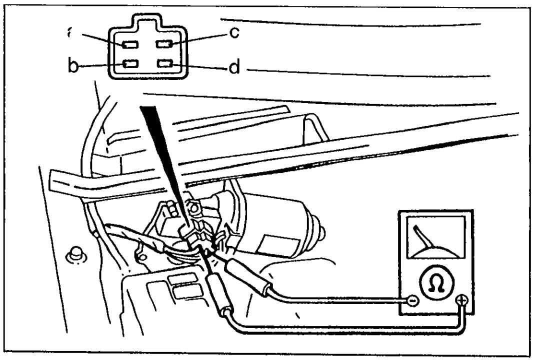
Check for continuity of terminal-wire (L/O) between washer motor and windshield wiper switch — NG → Repair harness (Motor—Switch)

OK

Disconnect windshield wiper switch 6-pin connector; check for continuity of terminal-wire (B) to ground — NG → Repair harness (Switch—Ground)

OK → Check windshield washer switch (Refer to Section T)

05U0SX-054



05U0SX-055

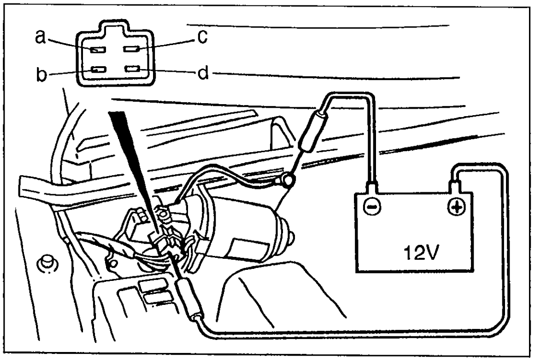
WIPER MOTOR

Inspection

Check for continuity between the terminals with the wiper is in parked position.

Terminals	Continuity	Terminals	Continuity
a—b	No (Yes)	b—c	No (Yes)
a—c	Yes (Yes)	b—d	No (Yes)
a—d	Yes (Yes)	c—d	Yes (Yes)

( ): CANADA

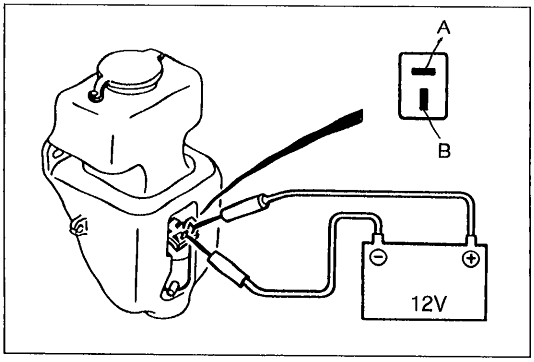


05U0SX-056

Check operation by applying 12V and a ground to the terminals of the motor connector.

Terminal	Operation speed
12V	
a (c)	Low
c (a)	High

( ): CANADA



05U0SX-057

WASHER MOTOR

Inspection

Connect 12V to terminal B and a ground to terminal A, and verify that the motor operates.

FRONT WIPER AND WASHER SWITCH

Inspection

Refer to Section T.

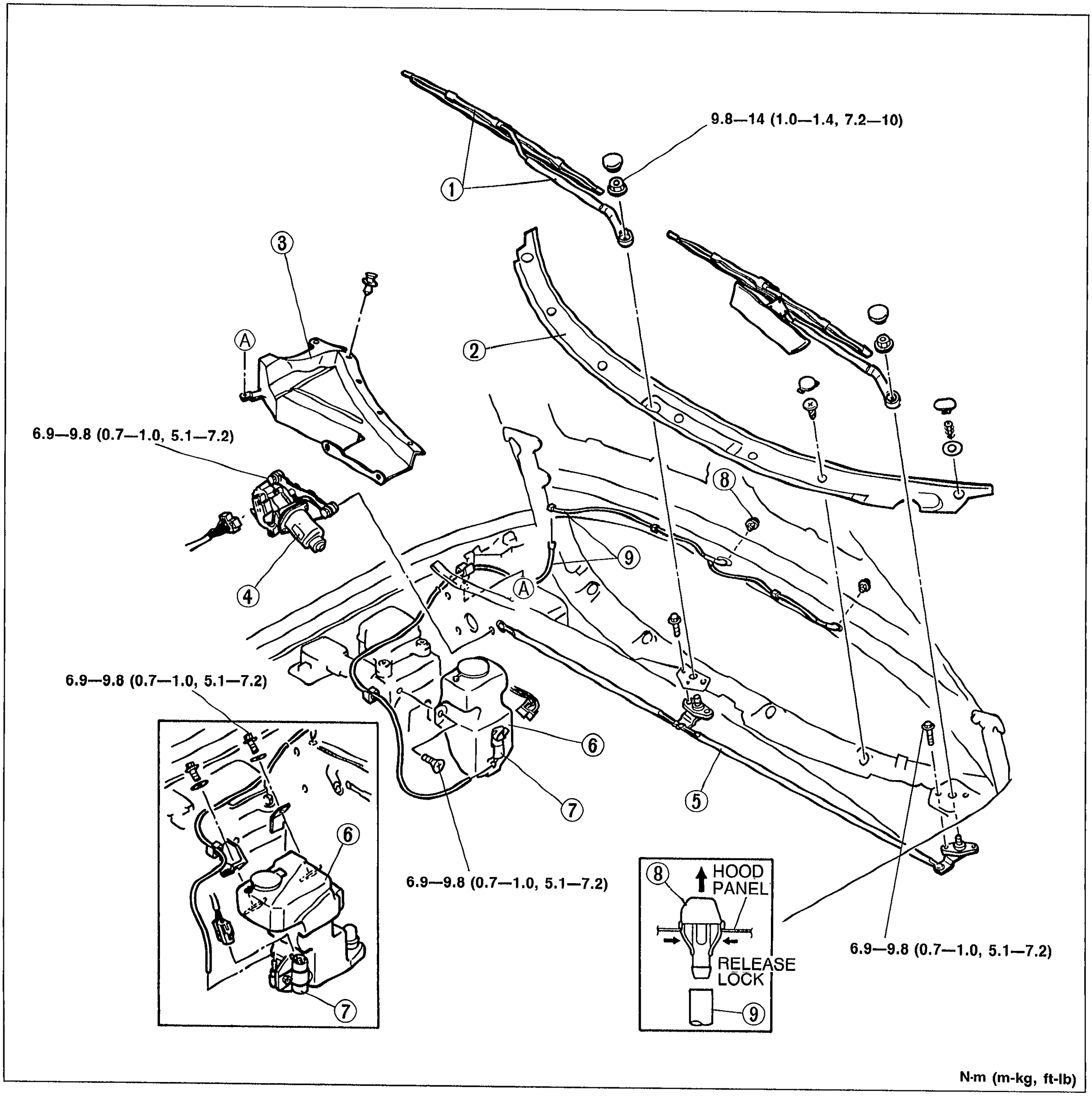
COMPONENTS

Caution

- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)**

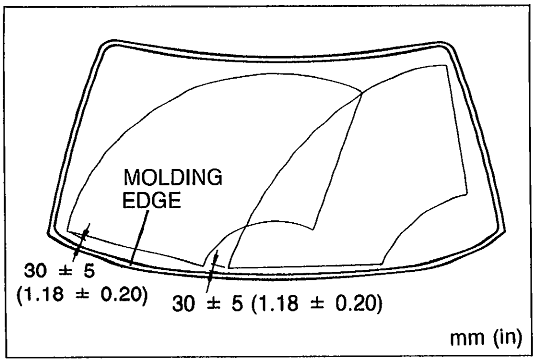
Removal / Installation

1. Disconnect the negative battery cable.
2. Remove in the order shown in the figure.
3. Install in the reverse order of removal.


9.8—14 (1.0—1.4, 7.2—10)
①
③
Ⓐ
②
6.9—9.8 (0.7—1.0, 5.1—7.2)
⑧
⑨
④
Ⓐ
6.9—9.8 (0.7—1.0, 5.1—7.2)
⑥
⑦
⑤
⑥
6.9—9.8 (0.7—1.0, 5.1—7.2)
⑧ HOOD PANEL
RELEASE LOCK
⑨
6.9—9.8 (0.7—1.0, 5.1—7.2)
⑦
N·m (m-kg, ft-lb)

05U0SX-058

1. Wiper arm and blade
   Adjustment .... page S–36
2. Cowl grille
3. Baffle cover
4. Wiper motor
   Inspection......... page S–34
5. Wiper link
6. Washer tank
7. Washer motor
   Inspection......... page S–34
8. Washer nozzle
   Adjustment .... page S–36
9. Washer pipe

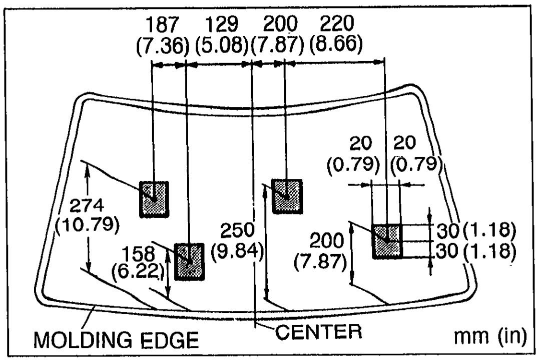

MOLDING EDGE
30 ± 5 (1.18 ± 0.20)
30 ± 5 (1.18 ± 0.20)
mm (in)

05U0SX-059

Adjustment

Arm height

Set the arm height as shown.


187 (7.36)
129 (5.08)
200 (7.87)
220 (8.66)
20 (0.79)
20 (0.79)
274 (10.79)
250 (9.84)
200 (7.87)
158 (6.22)
30 (1.18)
30 (1.18)
MOLDING EDGE
CENTER
mm (in)

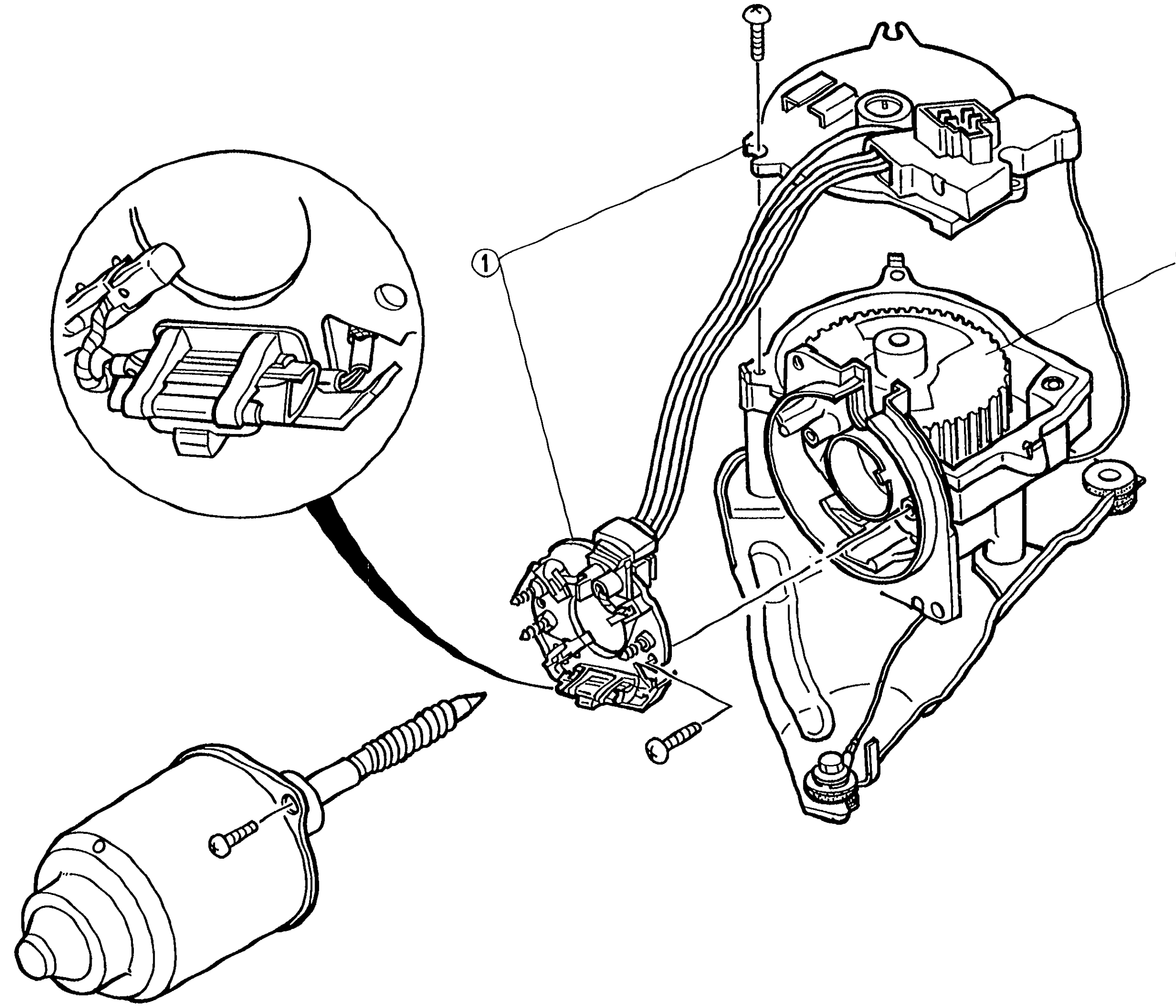
05U0SX-060

Washer nozzle

Insert a needle or similar object into the nozzle hole and move the nozzle to adjust the spray direction.

Disassembly / Assembly

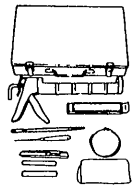
1. Disassemble in the order shown in the figure.
2. Assemble in the reverse order of disassembly.



1. Brush plate holder
2. Motor gear shaft

WINDSHIELD

PREPARATION
SST

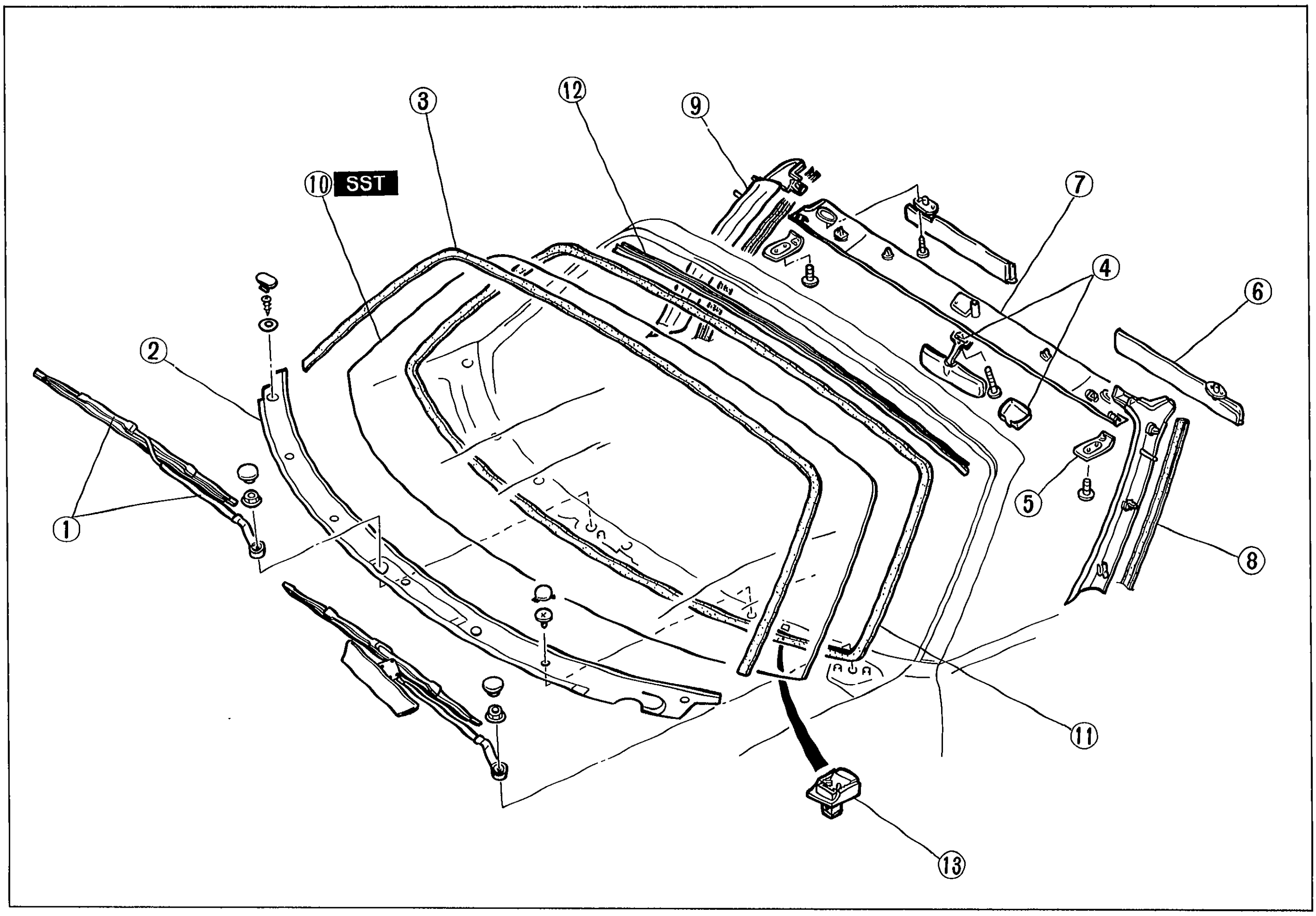
49 0305 870A Tool set, window	

05U0SX-062

COMPONENTS
Removal / Installation

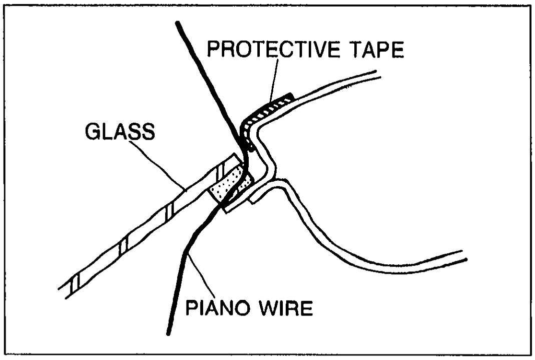
Note
- **Use the SST (49 0305 870A) to remove and install the windshield.**

1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.



05U0SX-063

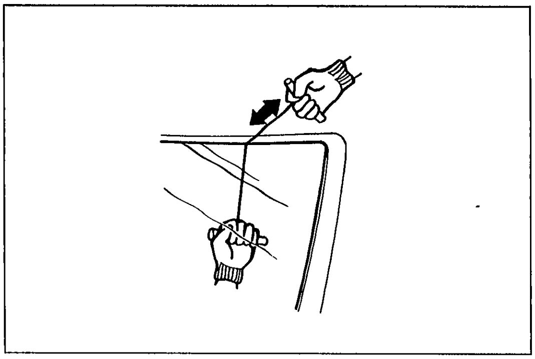
1. Wiper arm and blade
   Adjustment .... page S–36
2. Cowl grille
3. Windshield molding
   Installation Note page S–28
4. Rearview mirror and cover
5. Striker
6. Sunvisor
7. Front header trim
   Removal Note .. page S–54
8. Weatherstrip
9. A-pillar trim
   Removal Note .. page S–54
10. Windshield
    Removal Note .. page S–39
    Installation Note page S–39
11. Dam
12. Upper protector
13. Spacer



9MU0SX-097

Removal Note
Windshield

1. Apply protective tape along the edge of the body to protect it from damage.
2. Using an awl, make a hole through the sealant from the inside of the vehicle.
3. Pass piano wire through the hole.

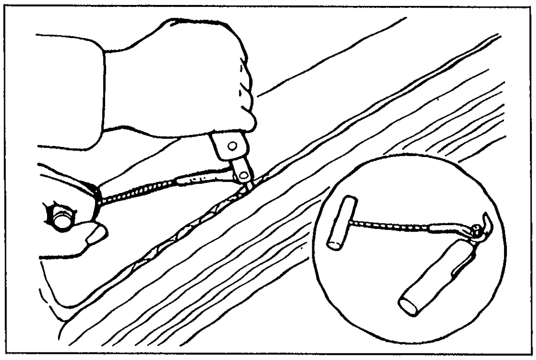


05U0SX-064

4. Wind each end of the wire around a bar.
5. Working with another person, saw through the sealant around the edge of the glass. Then remove the glass.

Caution

- **Use a long sawing action to spread the work over the whole length of wire to prevent it from breaking.**
- **Be careful that the wire does not rub on the body or dashboard.**

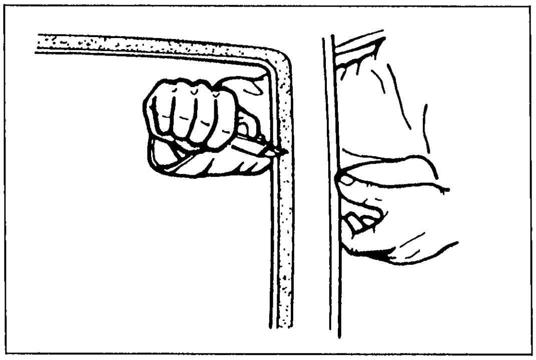


9MU0SX-099

Note

- **If the glass is not to be reused, a tool like that shown in the figure may be used.**

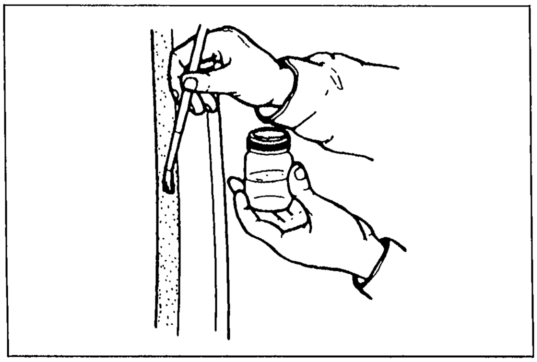
Insert the blade in the sealant, and pull on the bars.



05U0SX-065

Installation Note
Windshield

1. Cut away the old sealant with a razor knife so that **1 to 2mm (0.04 to 0.08 in)** thickness of sealant remains around the circumference of the frame. If all the sealant has come off in any one place, apply some primer after degreasing, and allow it **30 minutes** to dry. Then put on new sealant to create a **2mm (0.08 in)** layer.
2. Carefully clean an area **5 cm (1.97 in)** wide around the circumference of the glass and the bond on the body.

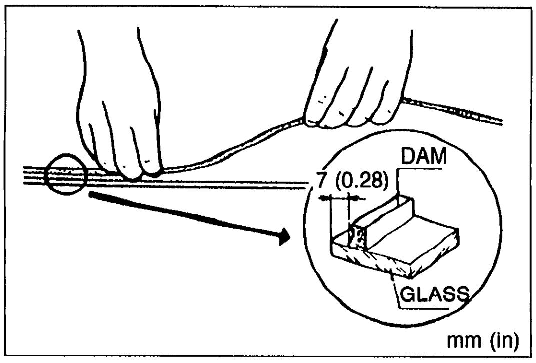


05U0SX-160

3. Apply primer with a brush to the bonding area of the glass and the body, and allow it to dry for **approx. 30 minutes**.

Caution

- **Keep the area free of dirt and grease. Do not touch the surface. If primer gets on the skin, remove it immediately.**

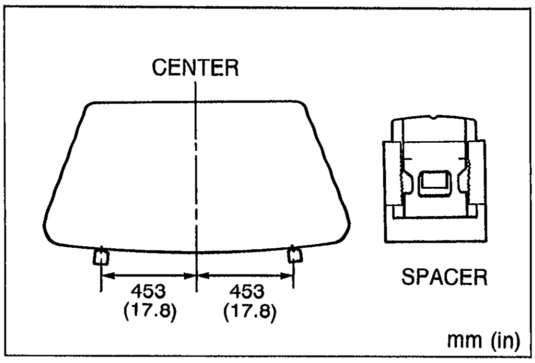

DAM
7 (0.28)
GLASS
mm (in)

05U0SX-066

4. Bond a new dam along the circumference of the glass **7mm (0.28 in)** from the edge.

Caution

- **Bond the dam securely and allow it to dry.**

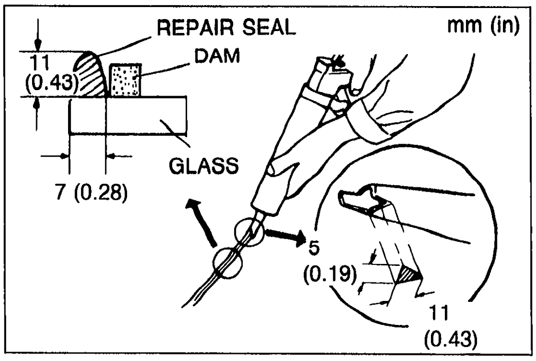

CENTER
SPACER
453
(17.8)
453
(17.8)
mm (in)

9MU0SX-103

5. Install the spacers onto the body as shown.

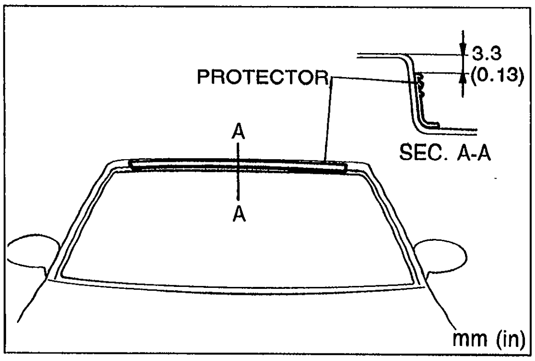
Caution

- **Damaged spacers must be replaced.**


REPAIR SEAL
DAM
11
(0.43)
GLASS
7 (0.28)
mm (in)
5
(0.19)
11
(0.43)

05U0SX-067

6. Prepare the nozzle of the sealant tube so that it has a flange that can run along the edge of the glass and a V from which the sealant can flow. Once the primer is dry, apply **repair seal** (B001 77 739) around the entire circumference to fill the gap between the dam and the edge of the glass with a ridge of sealant **11mm (0.43 in)** high.
   Keep the bead of sealant smooth and even, reshaping it where necessary with a spatula.

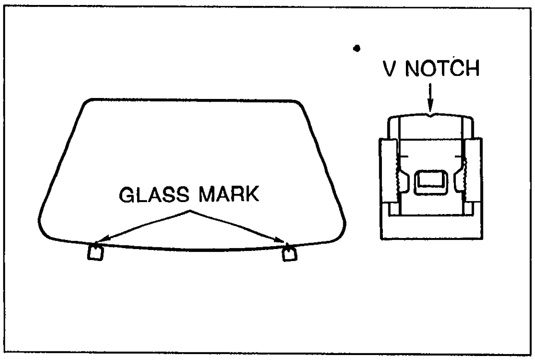

PROTECTOR
3.3
(0.13)
SEC. A-A
A
A
mm (in)

05U0SX-068

7. If the protector is damaged, bond a new protector onto the body, as shown.

Caution

- **Bond the protector securely and allow it to dry.**


V NOTCH
GLASS MARK

05U0SX-069

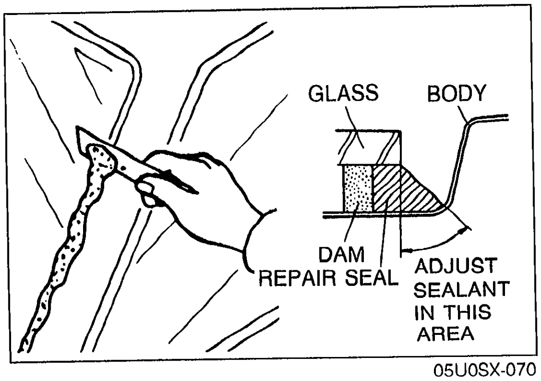
8. Install the glass, aligning the glass mark with the V notch in the spacer. Push it in lightly toward the vehicle to compress the sealant.

Caution

- **Lower the convertible top to prevent the glass from being pushed out by air pressure if a door is closed.**

Hardening time of repair seal

Temperature	Surface hardening time	Time required until car can be put into service
5°C (41°F)	Approx. 1.5 hr	12 hr
20°C (68°F)	Approx. 1 hr	4 hr
35°C (95°F)	Approx. 10 min	2 hr


GLASS
BODY
DAM
REPAIR SEAL
ADJUST SEALANT IN THIS AREA

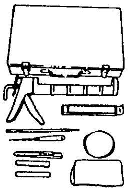
05U0SX-070

9. Use a scraper to smooth away any sealant that oozes out. Add more sealant to any points of poor contact.
10. Install a new windshield molding. (Refer to page S–28.)
11. Check for water leaks.
12. If a leak is found, wipe the water off well and remove the molding and windshield. Reinstall the windshield and replace the molding with new molding. (Refer to page S–28.)

05U0SX-071

REAR WINDOW GLASS (DETACHABLE HARD TOP)

PREPARATION
SST

49 0305 870A Tool set, window	

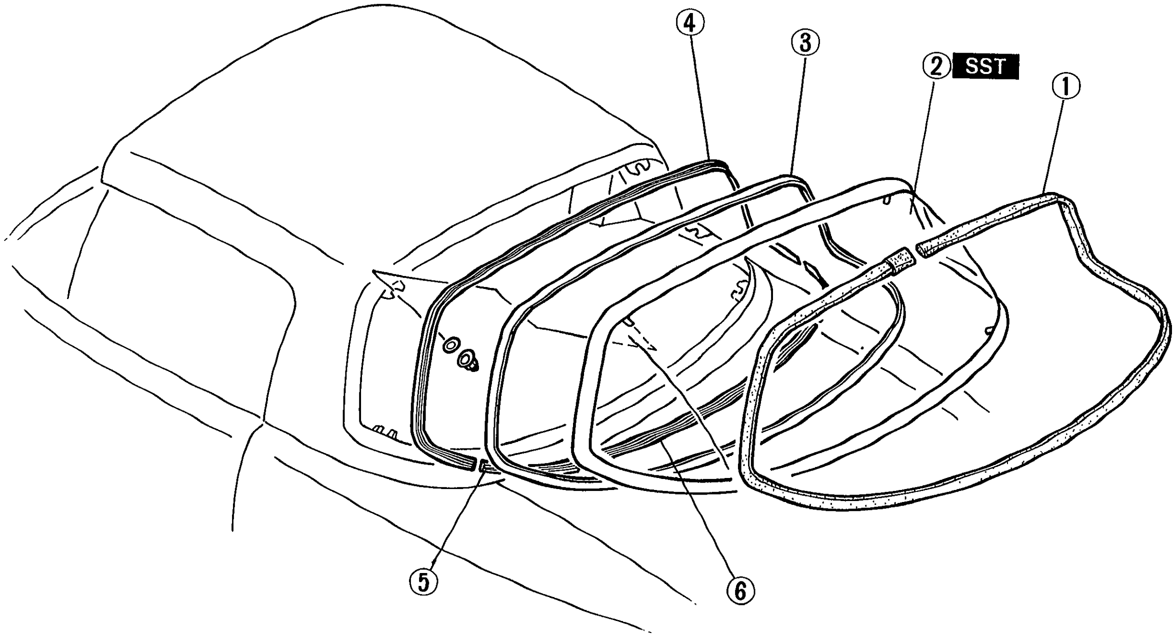
05U0SX-072

COMPONENTS
Removal / Installation

Note

- **Use the SST (49 0305 870A) to remove and install the rear window glass.**

1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.

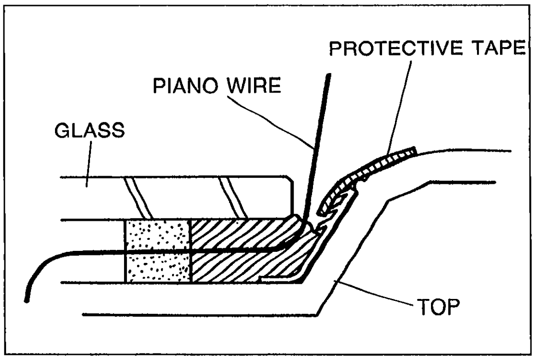


05U0SX-073

1. Rear window molding
   Installation Note .... page S–29
2. Rear window glass
   Removal Note .... page S–43
   Installation Note .... page S–43
3. Dam
4. Upper protector
5. Lower protector
6. Side protector

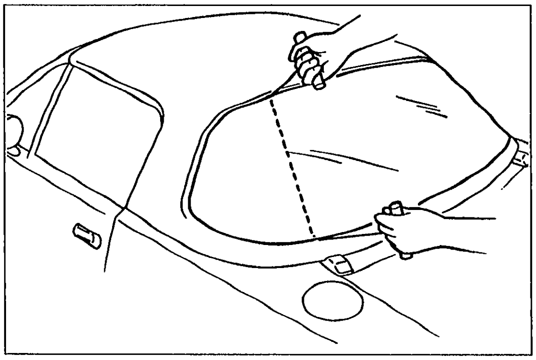
Removal Note

Rear window glass



05U0SX-074

1. Apply protective tape along the edge of the top to protect it from damage.
2. Remove the glass mounting nuts.
3. Using an awl, make a hole through the sealant from the inside of the vehicle.
4. Pass piano wire through the hole.

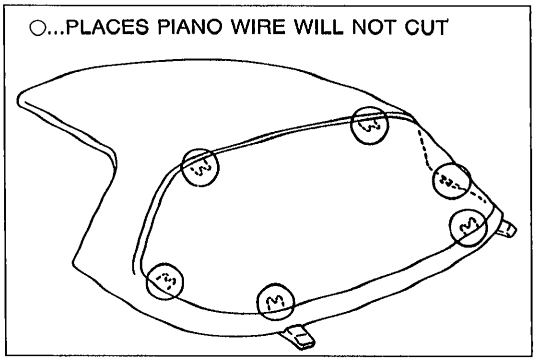


05U0SX-075

5. Wind each end of the wire around a bar.
6. Saw through the sealant around the edge of the glass. Then remove the glass.

Caution

- **Use a long sawing action to spread the work over the whole length of wire to prevent it from breaking.**
- **Be careful that the wire does not rub on the top.**

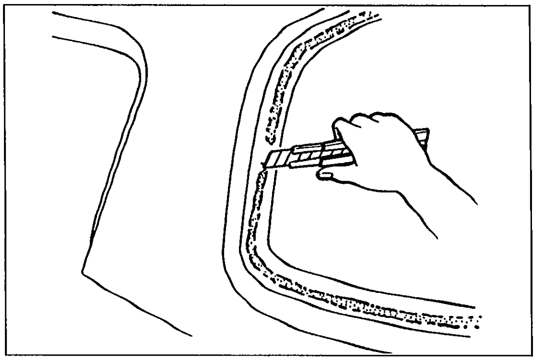


05U0SX-076

- **Use a razor knife to cut where the piano wire will not cut.**

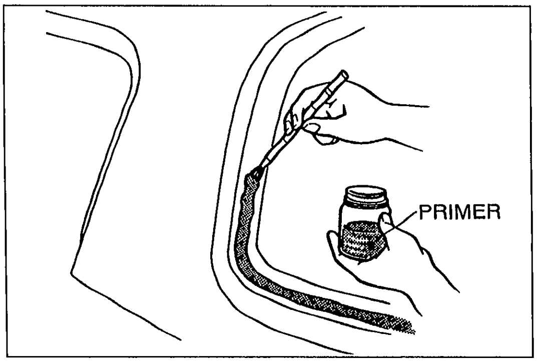
Installation Note

Rear window glass



05U0SX-077

1. Cut away the old sealant with a razor knife so that **1 to 2mm (0.04 to 0.08 in)** thickness of sealant remains around the circumference of the frame. If all the sealant has come off in any one place, apply some primer after degreasing, and allow it **30 minutes** to dry. Then put on new sealant to create a **2mm (0.08 in)** layer.
2. Carefully clean an area **5 cm (1.97 in)** wide around the circumference of the glass and the bond on the top.

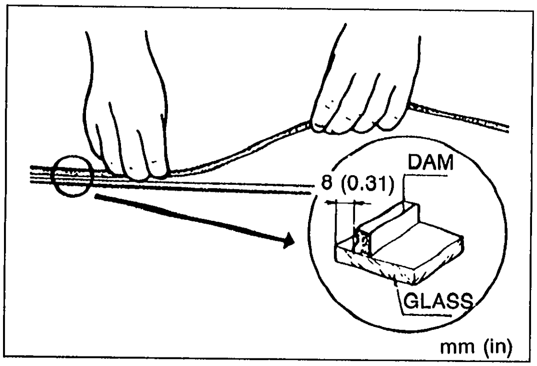


05U0SX-078

3. Apply primer with a brush to the bonding area of the glass and the top, and allow it to dry for **approx. 30 minutes**.

Caution

- **Keep the area free of dirt and grease. Do not touch the surface. If primer gets on the skin, remove it immediately.**

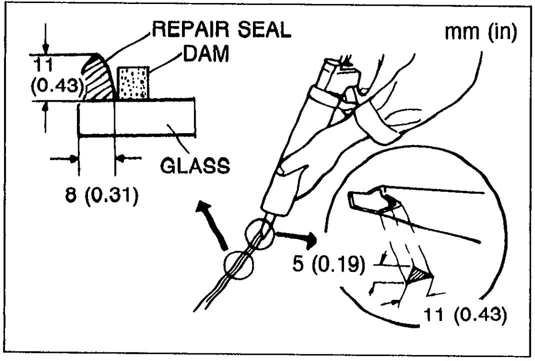

DAM
8 (0.31)
GLASS
mm (in)

05U0SX-079

4. Bond a new dam along the circumference of the glass **8mm (0.31 in)** from the edge.

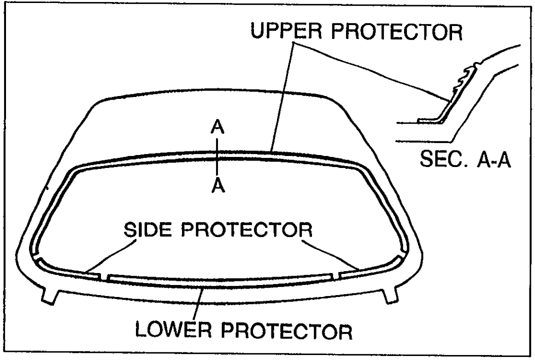
Caution

- **Bond the dam securely and allow it to dry.**


REPAIR SEAL
DAM
mm (in)
11 (0.43)
GLASS
8 (0.31)
5 (0.19)
11 (0.43)

05U0SX-080

5. Prepare the nozzle of the sealant tube so that it has a flange that can run along the edge of the glass and a V from which the sealant can flow. Once the primer is dry, apply the sealant around the entire circumference to fill the gap between the dam and the edge of the glass with a ridge of sealant **11mm (0.43 in)** high.
   Keep the bead of sealant smooth and even, reshaping it where necessary with a spatula.

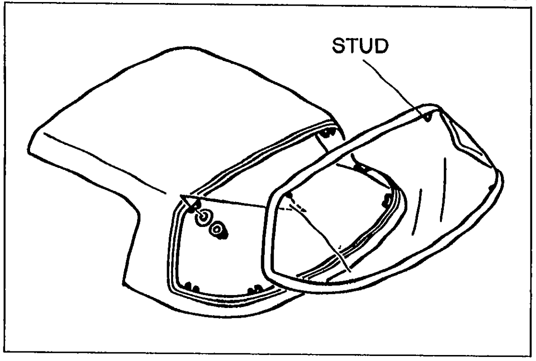

UPPER PROTECTOR
A
A
SEC. A-A
SIDE PROTECTOR
LOWER PROTECTOR

05U0SX-081

6. If protector is damaged bond a new protector onto the detachable hard top, as shown.

Caution

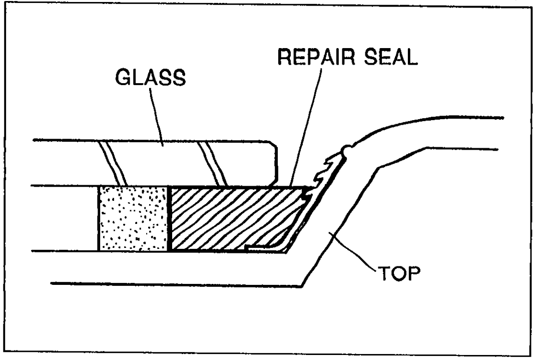
- **Bond the protector securely and allow it to dry.**



05U0SX-082

7. Align the studs of the glass with the detachable hard top and mount the glass.
8. Push the glass lightly toward the front to compress the sealant.
9. Tighten the glass mounting nuts.

Tightening torque:
2.4—3.3 N·m (24—34 cm-kg, 20.8—29.5 in-lb)


GLASS
REPAIR SEAL
TOP

05U0SX-083

10. Use a scraper to smooth away any sealant that oozes out. Add more sealant to any points of poor contact.
11. Install the new rear window molding. (Refer to page S–29.)

Hardening time of repair seal

Temperature	Surface hardening time	Time required until car can be put into service
5°C (41°F)	Approx. 1.5 hr	12 hr
20°C (68°F)	Approx. 1 hr	4 hr
35°C (95°F)	Approx. 10 min	2 hr

12. Check for water leaks.
13. If a leak is found, wiper the water off well and remove the molding and rear window glass. Reinstall the glass and replace the molding with new molding.
    (Refer to page S–29.)

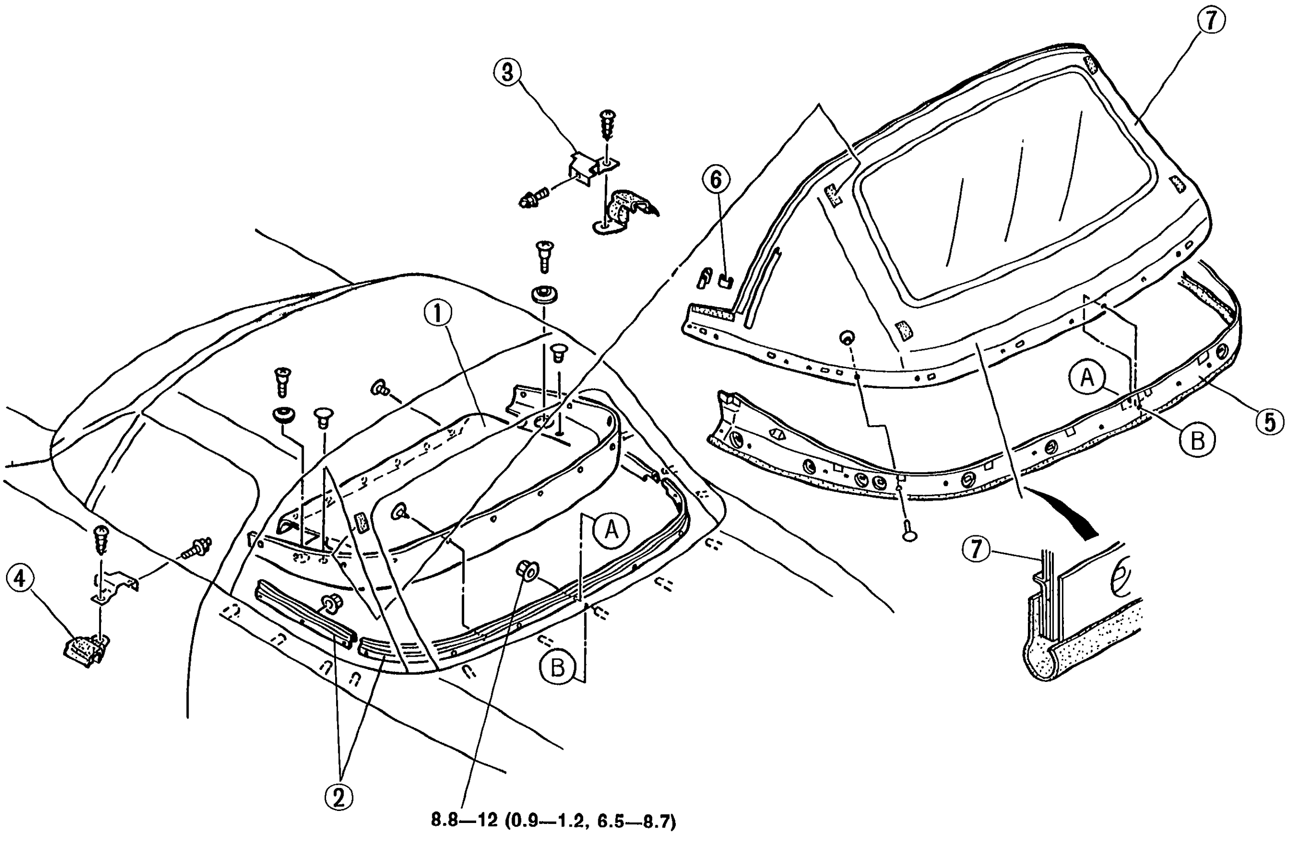
05U0SX-084

REAR WINDOW (CONVERTIBLE TOP)

COMPONENTS

Removal / Installation

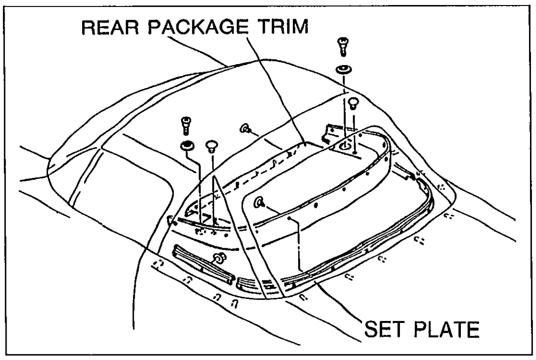
1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.



05U0SX-085

1. Rear package trim
2. Set plate
3. Beltline cover
4. Beltline protector
5. Rain rail
6. Zipper stop
7. Rear window

Removal Note............................. page S–47
Installation Note.......................... page S–48

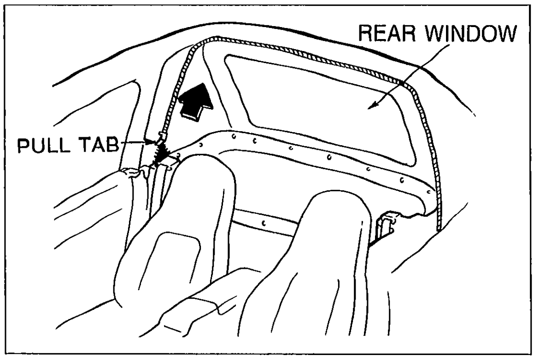

REAR PACKAGE TRIM
SET PLATE

05U0SX-086

Removal Note

Rear window

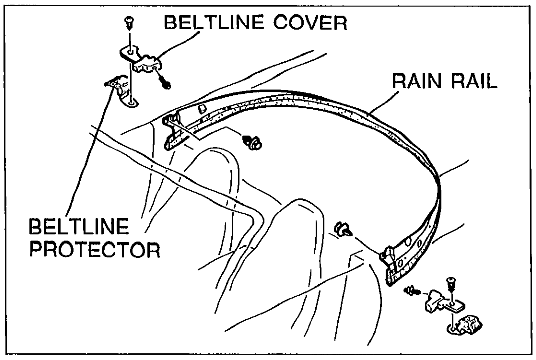
1. Remove the rear package trim.
2. Remove the set plates.


REAR WINDOW
PULL TAB

05U0SX-087

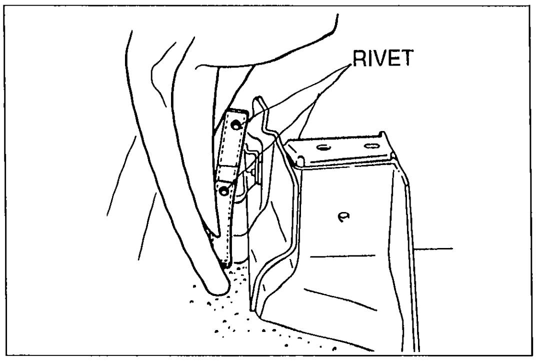
Note

- **Unzip the rear window, and lower the convertible top fully.**


BELTLINE COVER
RAIN RAIL
BELTLINE PROTECTOR

05U0SX-088

3. Remove the beltline covers.
4. Remove the beltline protectors.
5. Remove the rain rail mounting fasteners from the body.



05U0SX-089

Note

- **Raise the convertible top completely.**
- **Leave the top latch assemblies in the unlocked position.**

6. Remove the rain rail from the studs.
7. Remove the rivets from the link assembly with a drill.

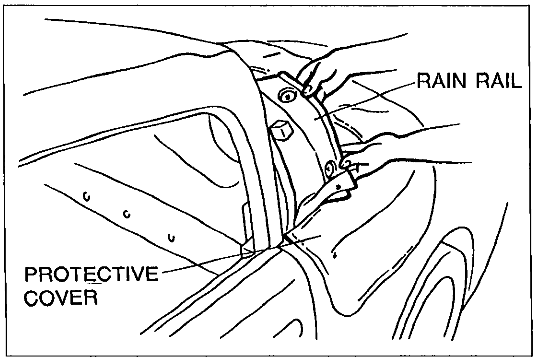
Drill size: ϕ4.0mm (ϕ0.16 in)

Note

- **Remove any accumulated dirt, etc.**

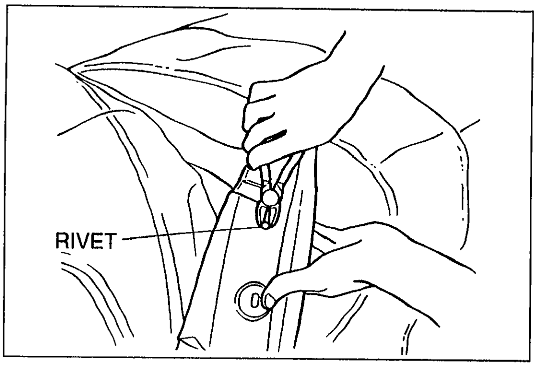
Caution

- **Cover the body to prevent it from damage.**


RAIN RAIL
PROTECTIVE COVER

05U0SX-090

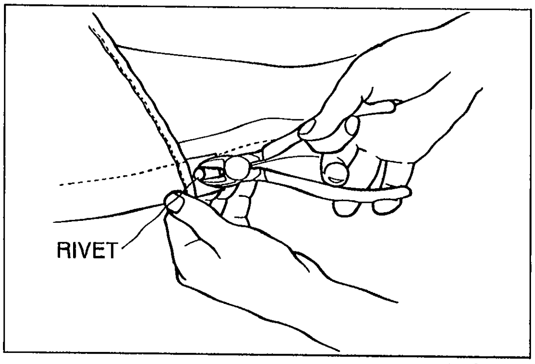
8. Remove the rain rail from the body.



05U0SX-091

9. Remove the rivets from the rain rail with a cutter, and remove the rain rail from the convertible top.

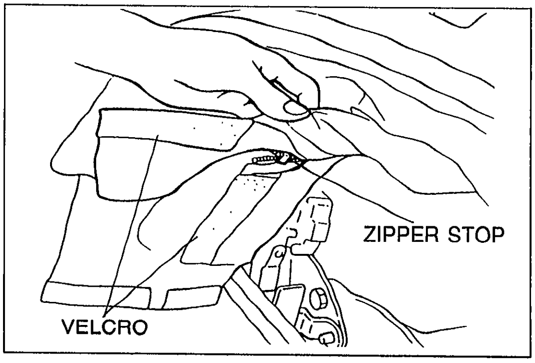
Note
- **Do not damage the rain rail.**



05U0SX-092

10. Remove the rivets from the rear window with a cutter.

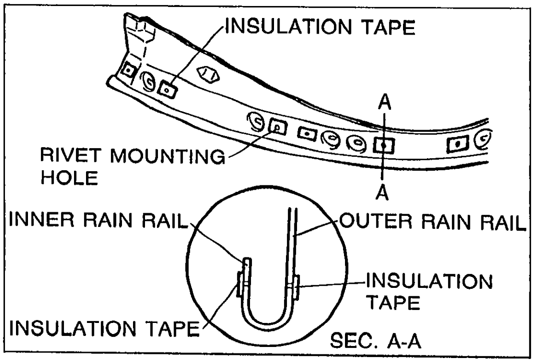
Note
- **Do not damage the rear window.**


ZIPPER STOP
VELCRO

05U0SX-093

11. Peel apart the Velcro.
12. Carefully remove the zipper stops from the rear window and top fabric, and remove the rear window.

Note
- **Save the zipper stops for reuse.**

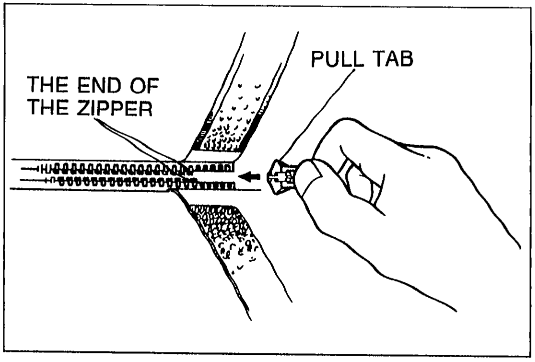

INSULATION TAPE
A
RIVET MOUNTING HOLE
A
INNER RAIN RAIL
OUTER RAIN RAIL
INSULATION TAPE
INSULATION TAPE
SEC. A-A

05U0SX-094

Installation Note
Rear window

1. Degrease the rain rail with ethyl alcohol.
2. Install insulation tape to the rivet mounting holes of the rain rail.

Insulation tape
Width : 20mm (0.79 in)
Height : 15mm (0.59 in)
Thick : 3mm (0.12 in)

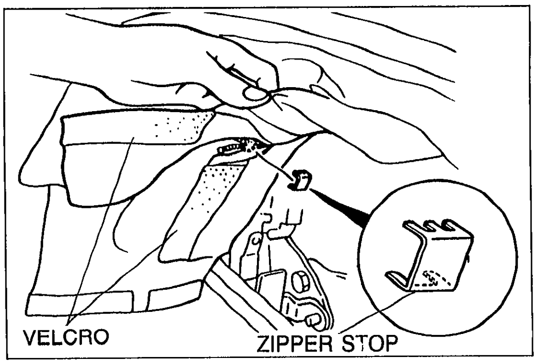

THE END OF THE ZIPPER
PULL TAB

05U0SX-095

3. Align the ends of the zipper, and install the zipper pull tab.

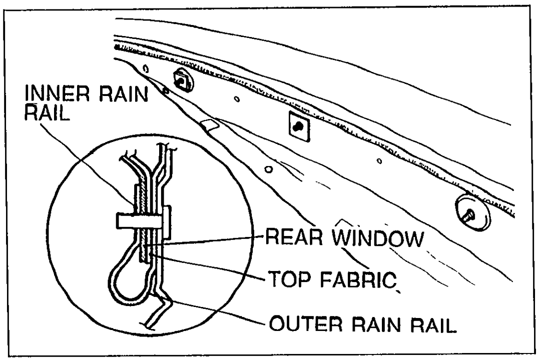
Note
- **Do not damage the rear window.**

4. Zip the rear window into place.


VELCRO
ZIPPER STOP

05U0SX-096

5. Install the zipper stops to the rear window and the top fabric.
6. Affix the rear window to the top fabric with the Velcro.

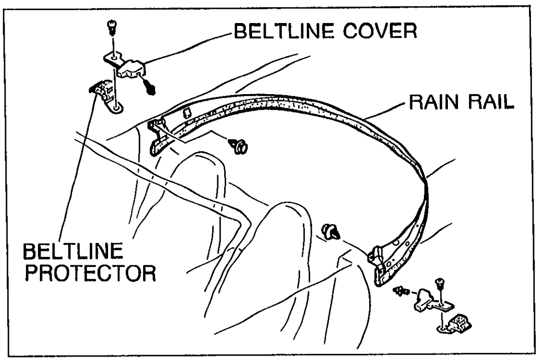

INNER RAIN RAIL
REAR WINDOW
TOP FABRIC
OUTER RAIN RAIL

05U0SX-097

7. Mount the outer rain rail to the studs.
8. Mount the top fabric to the studs.
9. Mount the rear window to the studs.
10. Mount the inner rain rail to the studs.
11. Loosely install the set plates.

Note

- **Install the set plate beginning at the left side.**

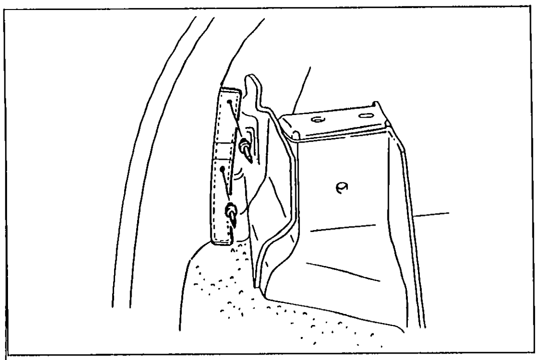

BELTLINE COVER
RAIN RAIL
BELTLINE PROTECTOR

05U0SX-098

Note

- **Unzip the rear window, and lower the convertible top fully.**

12. Install the rain rail with the fasteners.
13. Install the beltline protectors.
14. Install the beltline cover.



05U0SX-099

Note

- **Raise the convertible top completely, and lock the top latch assemblies.**
- **Zip the rear window into place.**

15. Tighten the set plate mounting nuts.

Tightening torque:
8.8—12 N·m (0.9—1.2 m-kg, 6.5—8.7 ft-lb)

16. Rivet the top fabric to the link assembly.
17. Install the rear package trim.
18. It there is any sagging of the top fabric, remove the pull tab and realign the zipper.

05U0SX-100

DASHBOARD AND CONSOLE

COMPONENTS

Caution

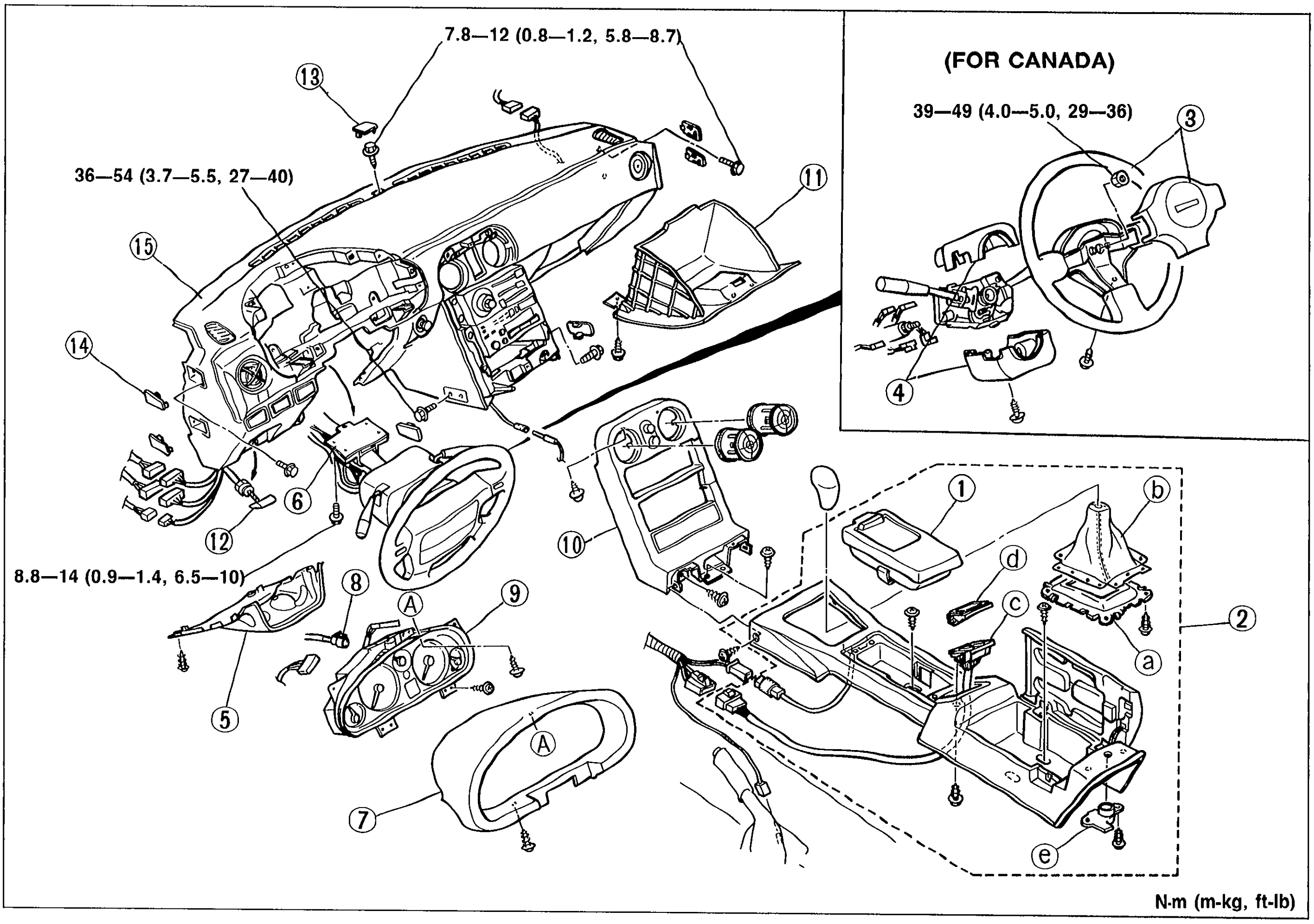
- **Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)**

Removal / Installation

Note

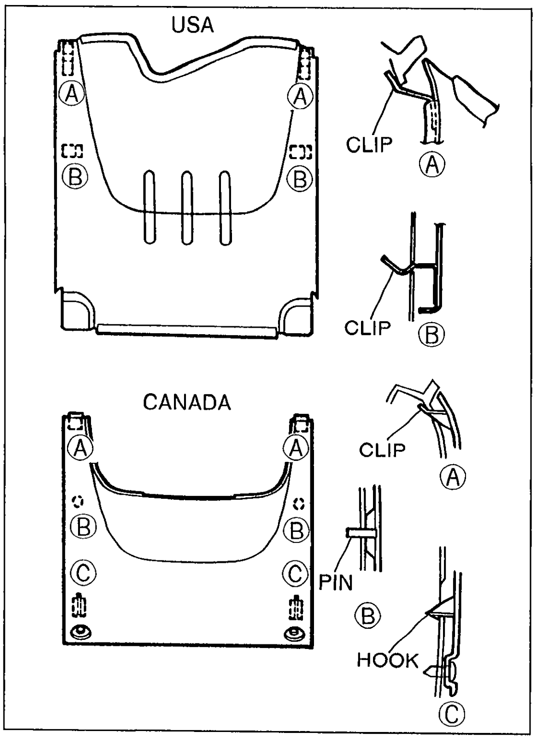
- **Do not remove the steering wheel if not necessary (U.S. spec.). If it is removed, refer to Section T.**
- **Remove the control wires of the heater unit and blower unit for removal of the dashboard.**
- **If necessary, remove Nos. 10 and 11 shown in the figure.**

1. Disconnect the negative battery cable.
2. Remove in the order shown in the figure.
3. Install in the reverse order of removal.



05U0SX-101

1. Ashtray
2. Rear console assembly
   - a. Back plate
   - b. Shift lever boot
   - c. Power window switch
   - d. Cover (Without power window)
   - e. Console lock assembly
3. Steering wheel and horn cap (Canada)
4. Column cover (Canada)
5. Center lower panel assembly
   Removal Note .. page S–51
6. Steering shaft
7. Meter hood assembly
   Removal Note .. page S–51
8. Speedometer cable
9. Instrument cluster
10. Center panel assembly
   Removal Note .. page S–51
11. Glove box assembly
12. Hood release knob
13. Center hole cover
14. Side cover
15. Dashboard

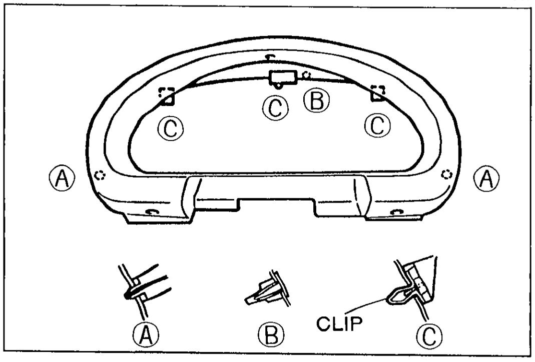

USA
Ⓐ
Ⓑ
CLIP
Ⓐ
CLIP
Ⓑ
CANADA
Ⓐ
Ⓑ
Ⓒ
CLIP
Ⓐ
PIN
Ⓑ
HOOK
Ⓒ

05U0SX-102

Removal Note

Center lower panel assembly

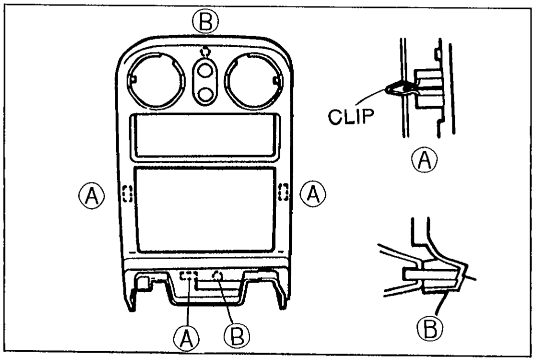
The clips are where shown.



05U0SX-103

Meter hood assembly

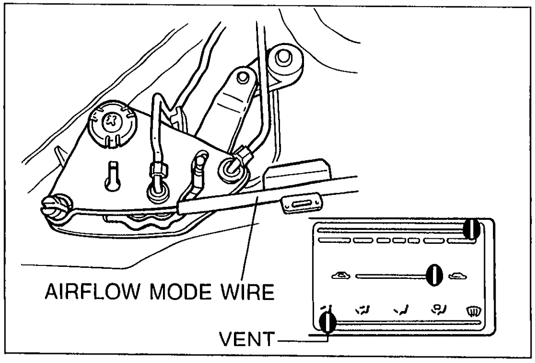
The clips are where shown.



05U0SX-104

Center panel assembly

The clips are where shown.


AIRFLOW MODE WIRE
VENT

05U0SX-105

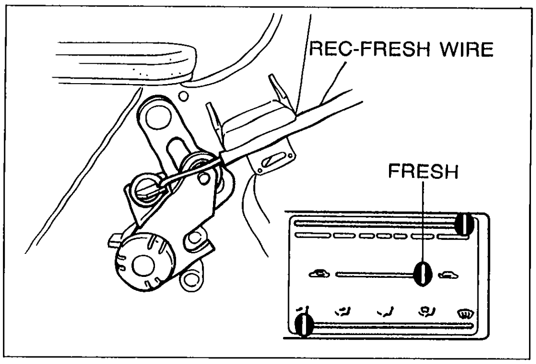
Adjustment Note

Airflow mode wire

1. Set the airflow mode control lever to VENT position.
2. Connect and clamp the wire with the shutter lever on the heater unit at its closest point.

Caution

- **After installation, move the airflow mode control lever to be sure the wire is securely attached, and that it moves the full stroke from DEF to VENT.**



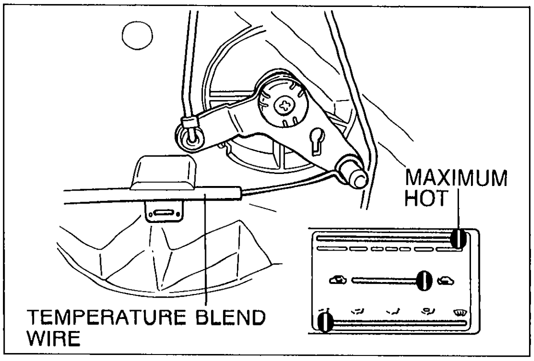
05U0UX-161

REC-FRESH wire

1. Set the selector lever to FRESH position.
2. Connect and clamp the wire with the shutter lever on the blower unit at its closest point.

Caution

- **After installation, move the REC-FRESH lever to be sure the wire is securely attached, and that it moves the full stroke from REC to FRESH.**



05U0SX-106

Temperature blend wire

1. Set the temperature blend lever to MAX-HOT position.
2. Connect and clamp the wire with the shutter lever on the heater unit all the way to the right.

Caution

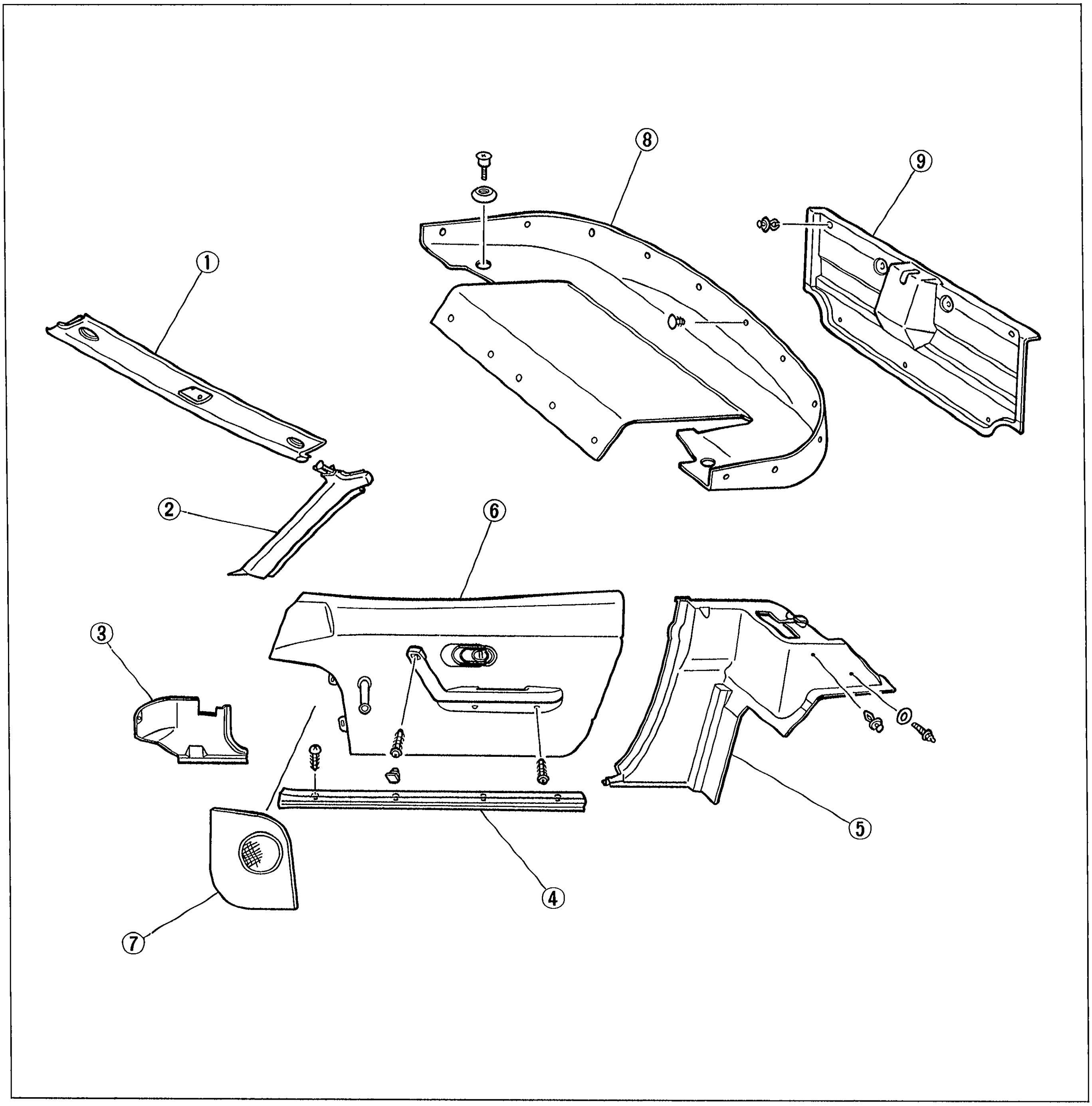
- **After installation, move the temperature blend lever to be sure the wire is securely attached, and that it moves the full stroke from HOT to COLD.**

TRIM

COMPONENTS

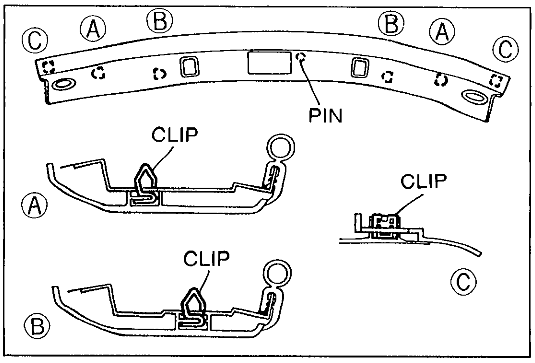
Removal / Installation

1. Remove as shown by prying out the trim clips.
2. Install in the reverse order of removal.



05U0SX-107

1. Front header trim
   Removal Note.............................. page S–54
2. A-pillar trim
   Removal..................................... page S–54
3. Front side trim
   Removal Note.............................. page S–54
4. Scuff plate
   Removal Note.............................. page S–54
5. Quarter trim
   Removal Note.............................. page S–54
6. Door trim
   Removal Note.............................. page S–55
7. Speaker grille
   Removal Note.............................. page S–55
8. Rear package trim
9. Trunk end trim

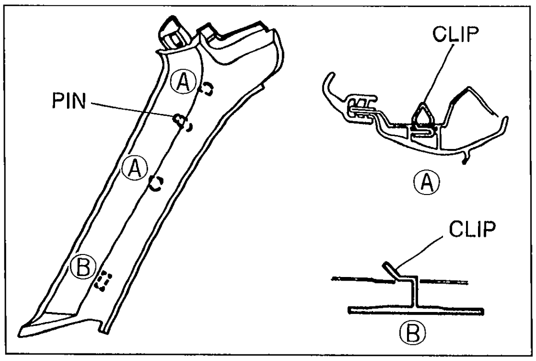

Ⓒ
Ⓐ
Ⓑ
Ⓑ
Ⓐ
Ⓒ
PIN
CLIP
Ⓐ
CLIP
Ⓒ
CLIP
Ⓑ

05U0SX-108

Removal Note

Front header trim

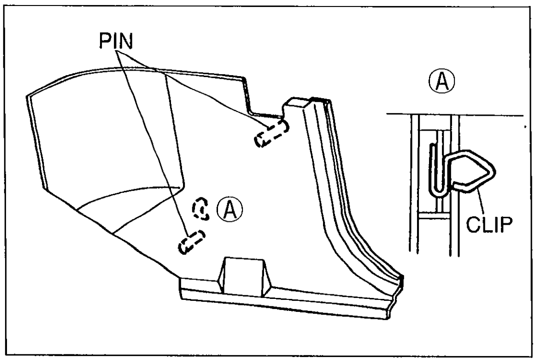
The clips and pin are where shown.


PIN
Ⓐ
Ⓐ
Ⓑ
CLIP
Ⓐ
CLIP
Ⓑ

05U0SX-109

A-pillar trim

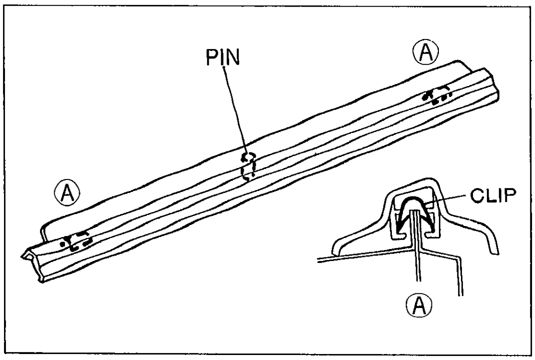
The clips and pin are where shown.



05U0SX-110

Front side trim

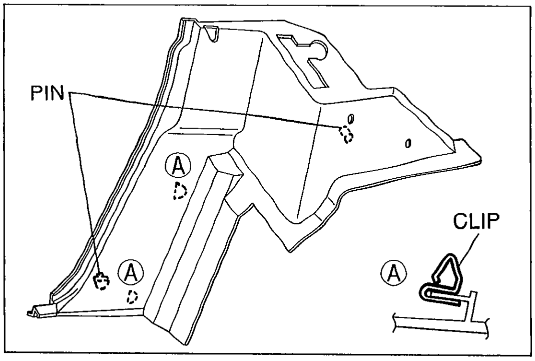
The clip and pins are where shown.



05U0SX-111

Scuff plate

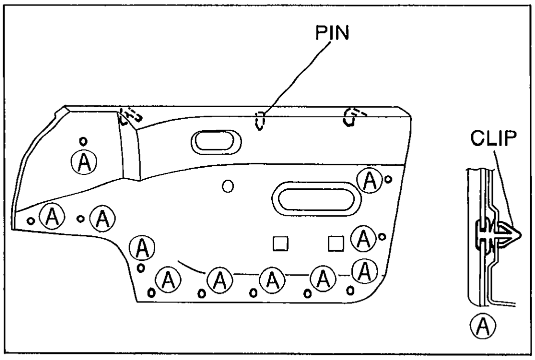
The clips and pin are where shown.



05U0SX-112

Quarter trim

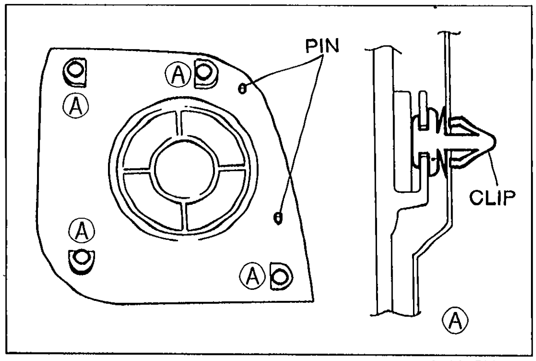
The clips and pins are where shown.



05U0SX-113

Door trim

The clips and pin are where shown.



05U0SX-114

Speaker grille

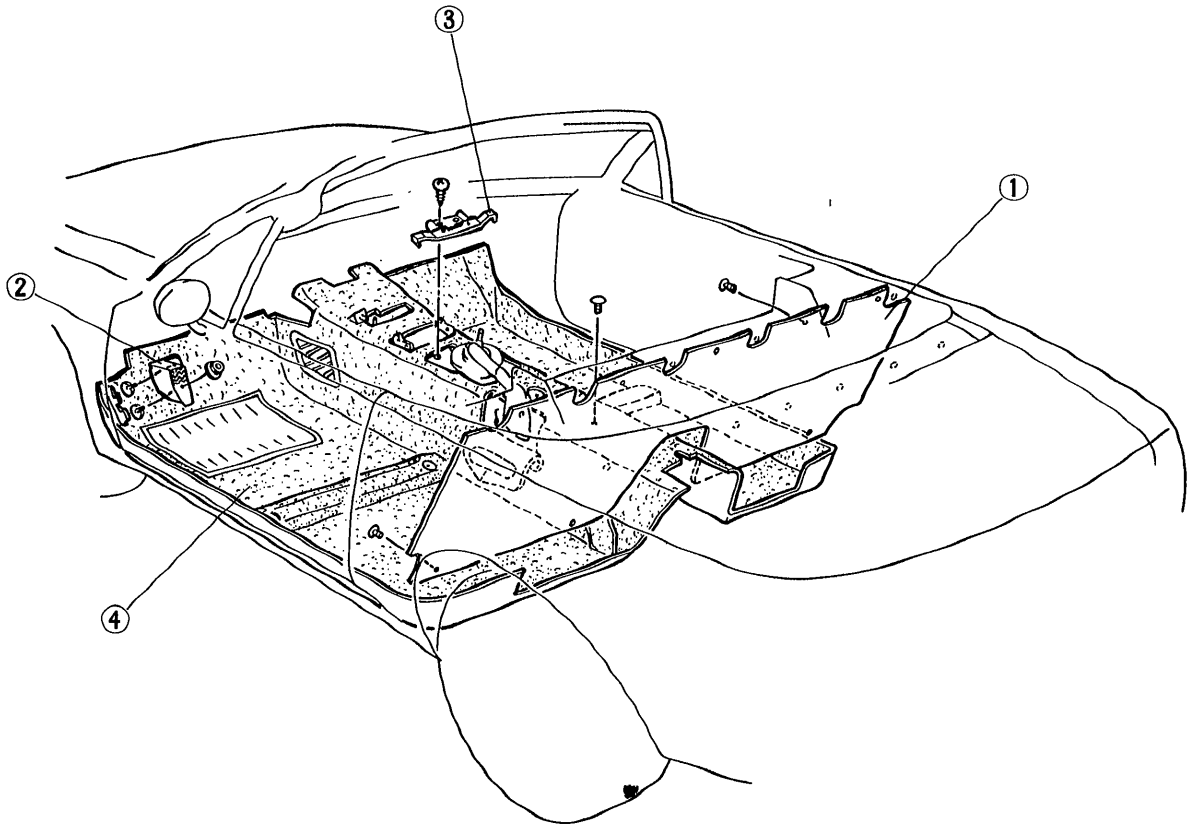
The clips and pins are where shown.

FLOORMAT

COMPONENTS

Removal / Installation

1. To remove the floormat, first remove the following.
   a) Seats; (Refer to page S–59.)
   b) Dashboard; (Refer to page S–50.)
   c) Heater unit; (Refer to Section U.)
   d) Front side trim, scuff plates, quarter trim, and rear package trim; (Refer to page S–53.)
   e) Front seat belts and buckles; (Refer to page S–57.)
2. Remove the remaining parts in the order shown in the figure.
3. Install in the reverse order of removal.



05U0SX-115

1. Rear end mat
2. Foot rest
3. Bracket
4. Front floormat

SEAT BELT

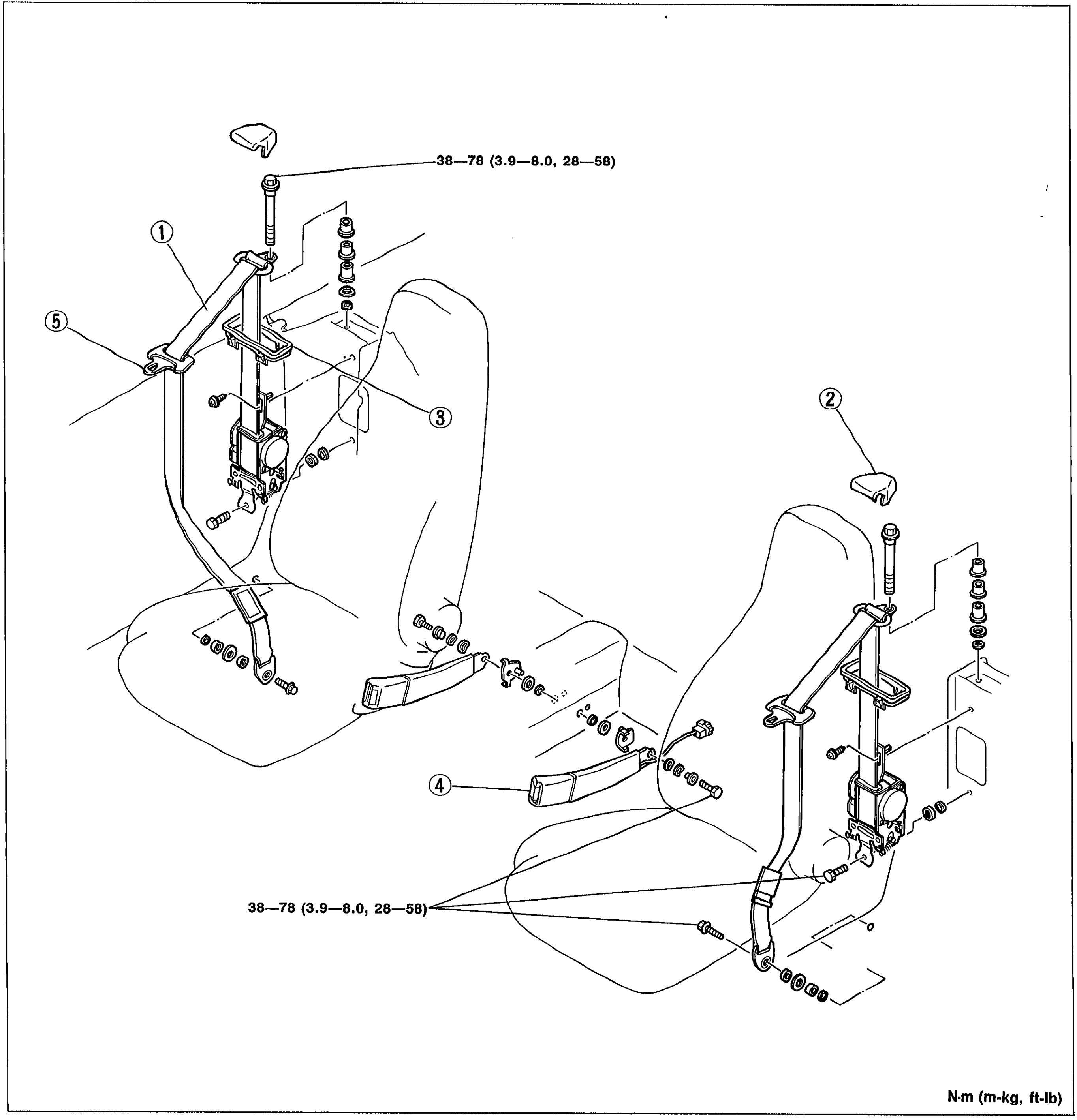
COMPONENTS

Removal / Installation

1. Remove the quarter trim for removal of the seat belt. (Refer to page S–54.)
2. Remove in the order shown in the figure.
3. Install in the reverse order of removal.

Caution

- **Do not disassemble the buckle or retractor assembly.**


38—78 (3.9—8.0, 28—58)
①
⑤
③
②
④
38—78 (3.9—8.0, 28—58)
N·m (m-kg, ft-lb)

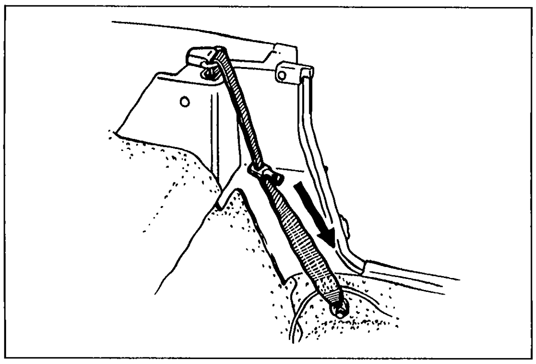
05U0SX-116

1. Seat belt
    Inspection .... page S–58
2. Anchor cover
3. Bezel
4. Buckle
5. Tang

EMERGENCY LOCKING RETRACTOR (ELR)

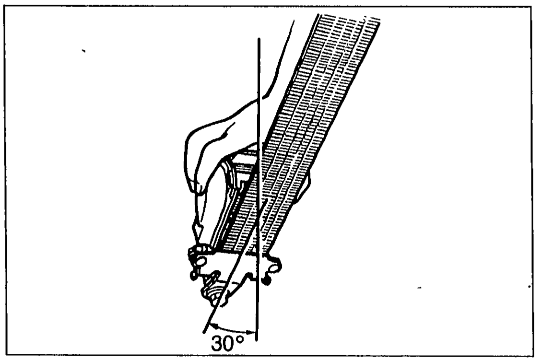
Inspection

1. Verify that the belt can be pulled out smoothly, and that it moves smoothly when worn.
2. Verify that the retractor locks when the belt is quickly pulled.



05U0SX-117

3. Remove the retractor.
4. Hold the retractor as it would be installed.
5. Slowly incline the retractor while pulling out the belt.
6. Verify that the retractor locks at **approx. 30 degrees** inclination.



05U0SX-118

WEBBING

Inspection

Inspect the webbing for scars, tears, and wear and for deformation of the fittings.

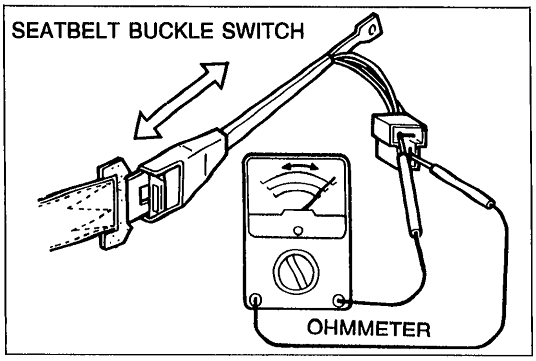
BUCKLE SWITCH

Inspection

1. Disconnect the seatbelt buckle switch connector.
2. Check continuity of the switch.

Seatbelt	Continuity
Buckled	No
Unbuckled	Yes

3. If continuity is not as specified, replace the switch.



05U0SX-119

SEAT

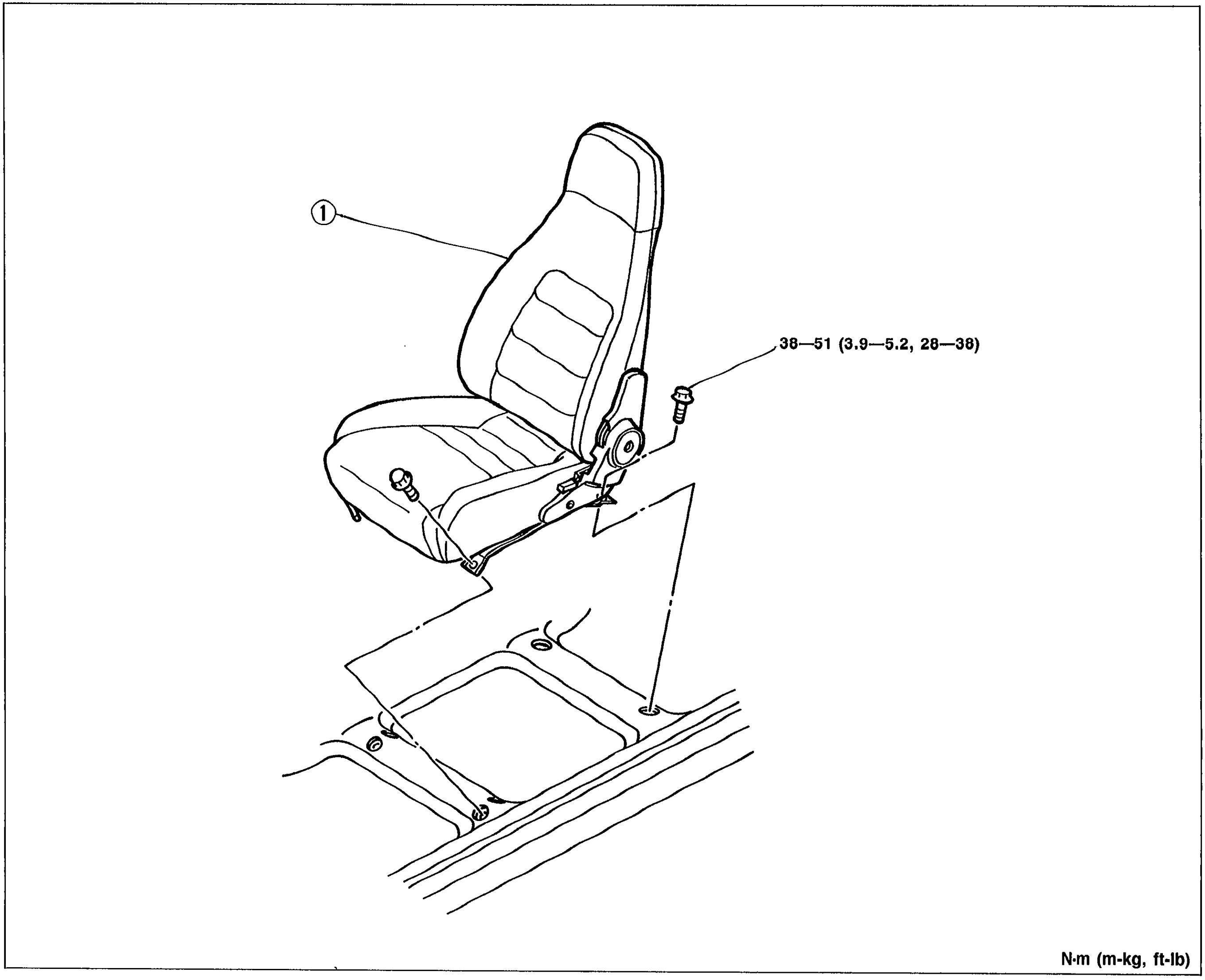
COMPONENTS

Removal / Installation

1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.

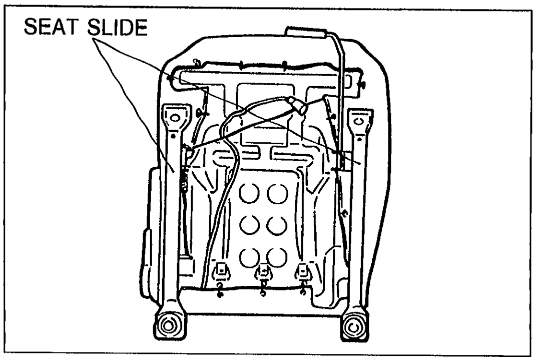
Note

- **Disconnect the headrest speaker connector for removal of the seat (with headrest speaker).**



05U0SX-120

1. Front seat
   Inspection... below



05U0SX-121

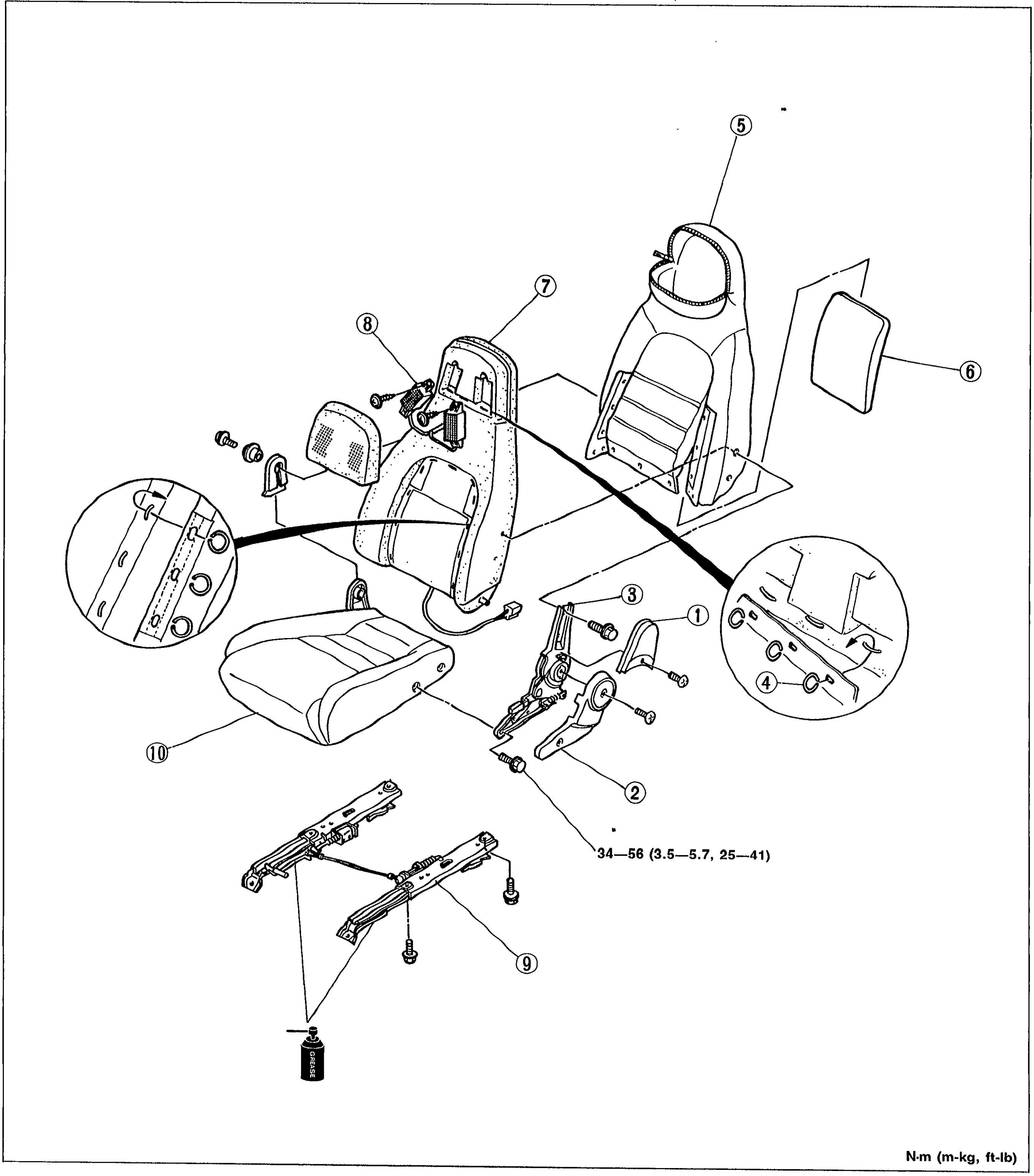
SEAT

Inspection

1. Verify that the seat adjuster lever and reclining knuckle move smoothly.
2. Check the adjustment lever for wear.
3. Check the front seat mounting bolts for looseness.
4. Check grease on the seat slides.

Disassembly / Assembly

1. Disassemble in the order shown in the figure.
2. Assemble in the reverse order of disassembly.


⑤
⑦
⑧
⑥
③
①
④
⑩
②
34—56 (3.5—5.7, 25—41)
⑨
GREASE
N·m (m-kg, ft-lb)

05U0SX-122

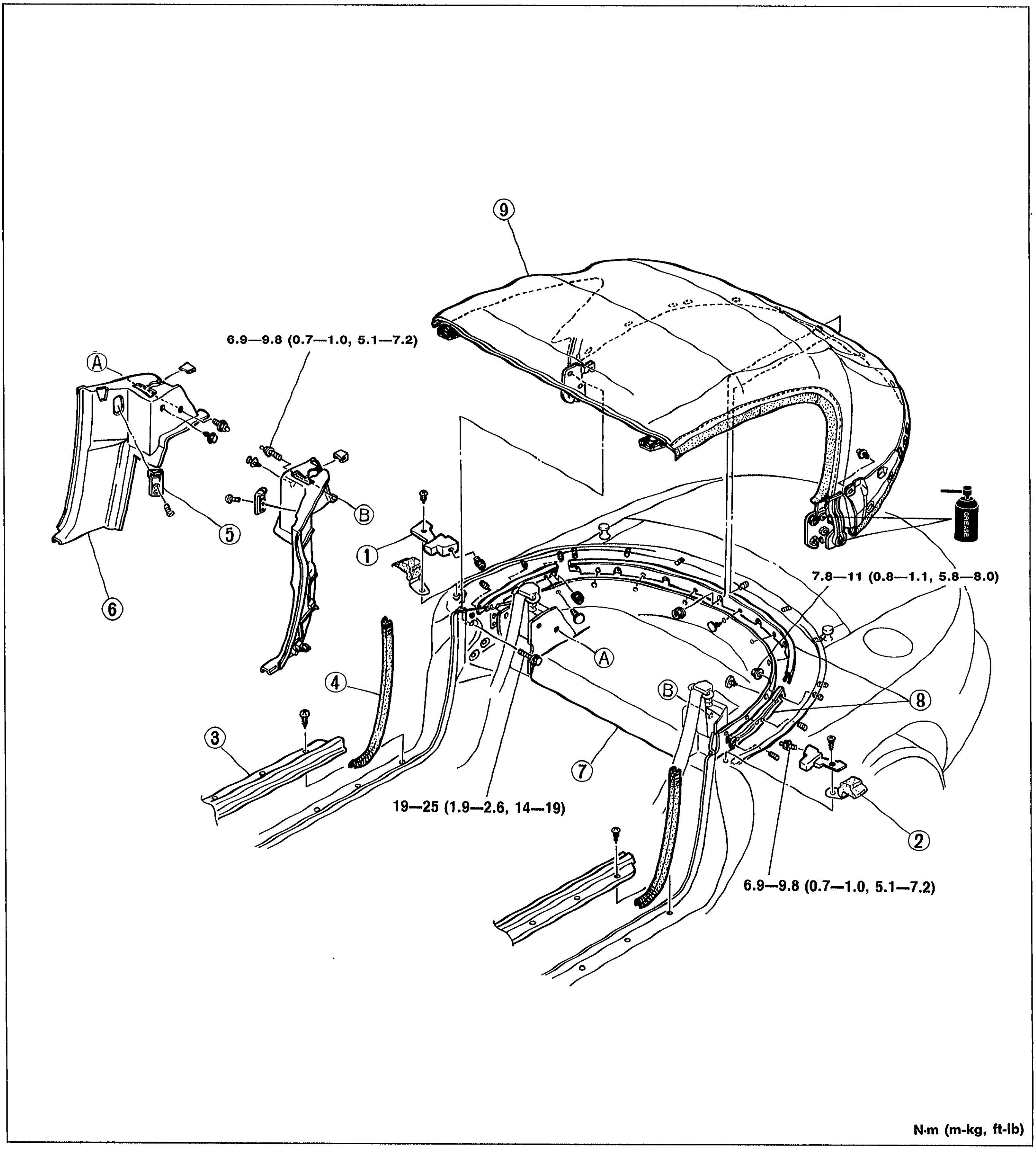
1. Side cover
2. Reclining knuckle cover
3. Reclining knuckle
4. Hog ring
5. Seatback trim
6. Pad
7. Back frame
8. Headrest speaker (If equipped)
   Inspection .... Section T
9. Seat slide
10. Seat cushion

CONVERTIBLE TOP

COMPONENTS

Removal / Installation

1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.



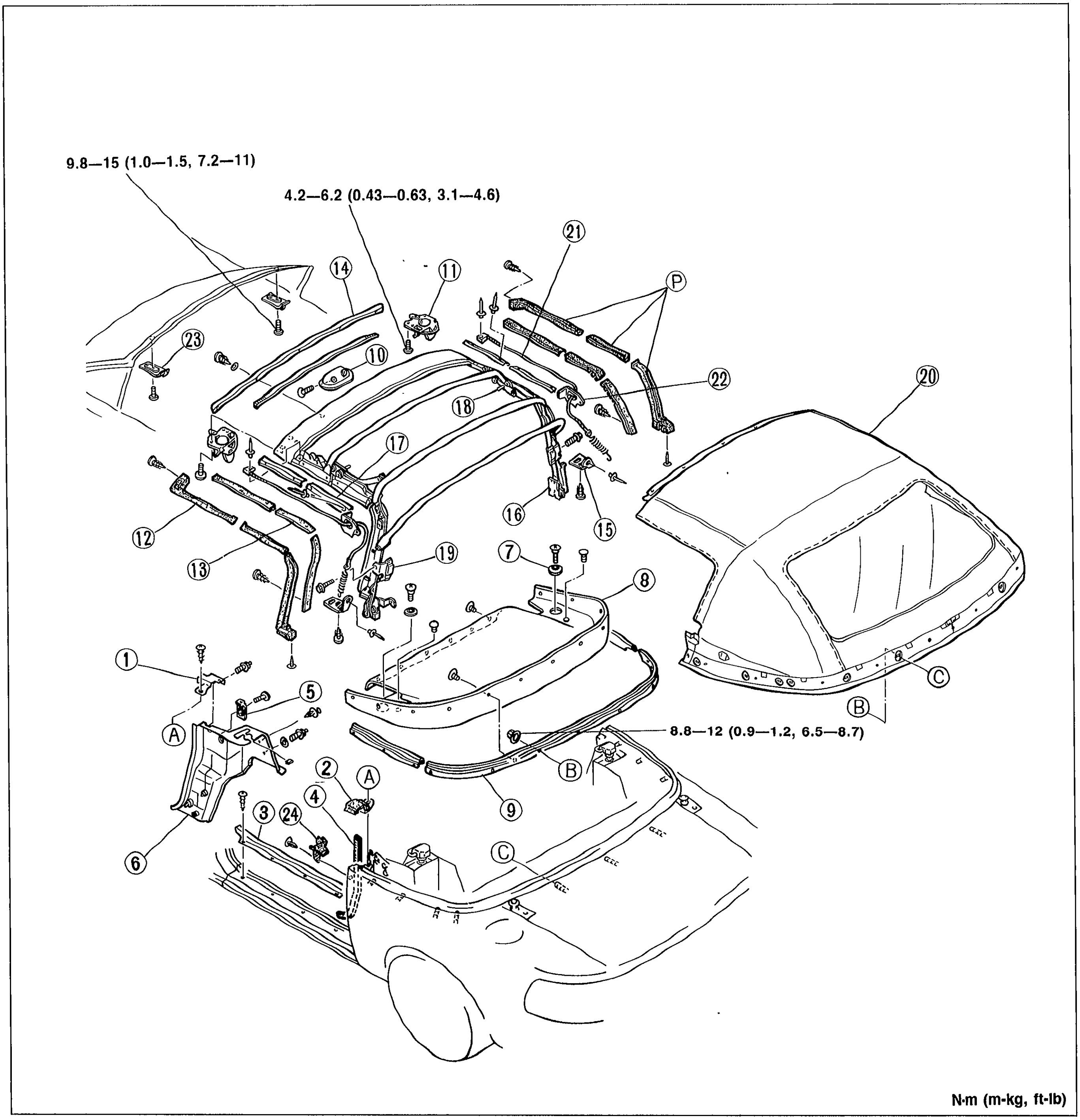
⑨
6.9—9.8 (0.7—1.0, 5.1—7.2)
Ⓐ
Ⓑ
⑤
①
⑥
GREASE
7.8—11 (0.8—1.1, 5.8—8.0)
Ⓐ
④
Ⓑ
⑧
③
⑦
19—25 (1.9—2.6, 14—19)
②
6.9—9.8 (0.7—1.0, 5.1—7.2)
N·m (m-kg, ft-lb)

05U0SX-123

1. Beltline cover	4. Seaming welt	7. Rear package trim
2. Beltline protector	5. Striker (If equipped)	8. Set plate
3. Scuff plate Removal Note .. page S–54	6. Quarter trim Removal Note .. page S–54	9. Convertible top

Disassembly / Assembly

1. Disassemble in the order shown in the figure.
2. Assemble in the reverse order of disassembly.


9.8—15 (1.0—1.5, 7.2—11)
4.2—6.2 (0.43—0.63, 3.1—4.6)
8.8—12 (0.9—1.2, 6.5—8.7)
N·m (m-kg, ft-lb)
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
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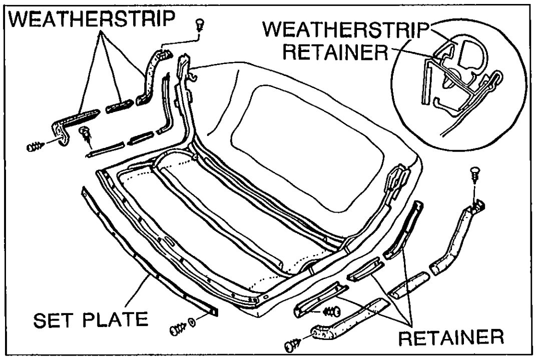
Ⓐ
Ⓑ
Ⓒ
Ⓟ

05U0SX-124

1. Beltline cover
2. Beltline protector
3. Scuff plate
4. Seaming welt
5. Striker (If equipped)
6. Quarter trim
7. Stopper
8. Rear package trim
9. Set plate
10. Top handle
11. Top latch assembly
    Adjustment....... page S–71
12. Weatherstrip
    Adjustment....... page S–72
13. Retainer
14. Set plate
15. End plate
16. Link assembly
17. Protector
18. Link stopper
19. Open stopper
20. Top fabric
    Disassembly Note
    .... page S–63
    Assembly Note. page S–65
21. Cable
22. Cable guide
23. Striker
24. Cab side weatherstrip


WEATHERSTRIP
WEATHERSTRIP RETAINER
SET PLATE
RETAINER

05U0SX-125

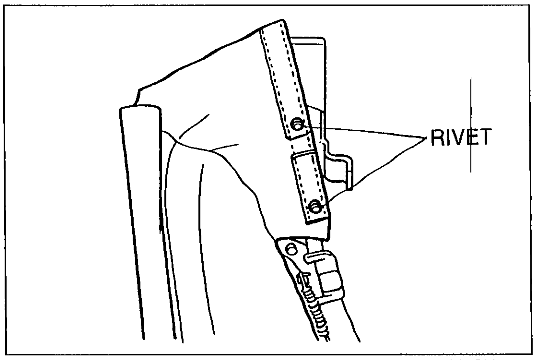
Disassembly Note

Top fabric

1. Remove the convertible top from the body.
   (Refer to page S–61.)

   Note
   - **Set the convertible top upside down on a clean surface.**

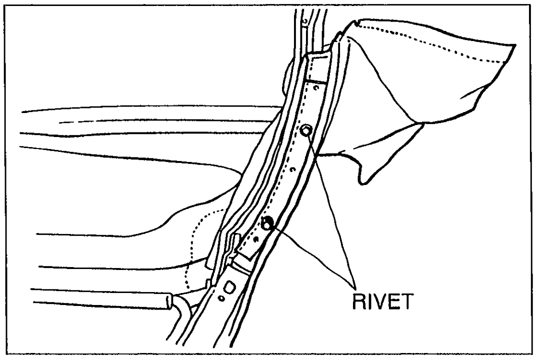
2. Remove the set plate, weatherstrips, and retainers.

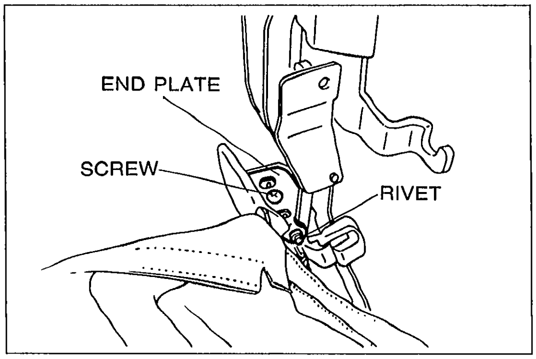


05U0SX-126

3. Remove the rivets from the link assembly with a drill.

   Drill size: ϕ4.0mm (ϕ0.16 in)




END PLATE
SCREW
RIVET

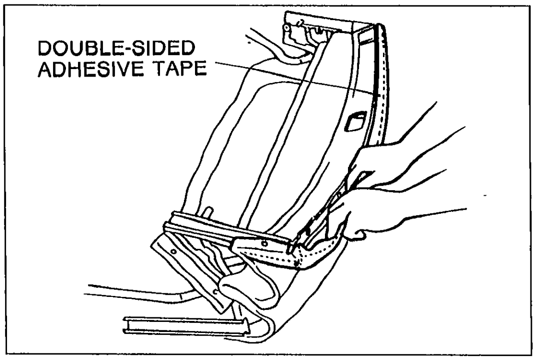
05U0SX-127

4. Remove the rivets with a drill and remove the screws from the link assembly. Remove the end plates.

   Drill size: ϕ4.0mm (ϕ0.16 in)

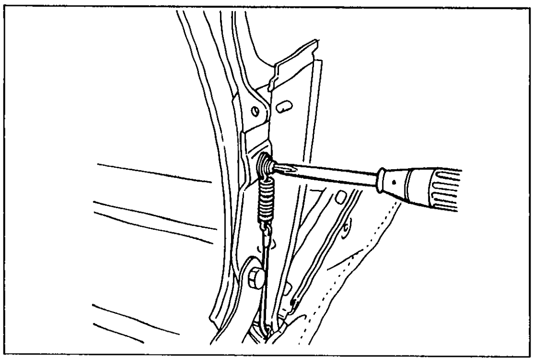
   Note
   - **Fold the convertible top.**

5. Remove the top fabric from the link assembly.


DOUBLE-SIDED ADHESIVE TAPE

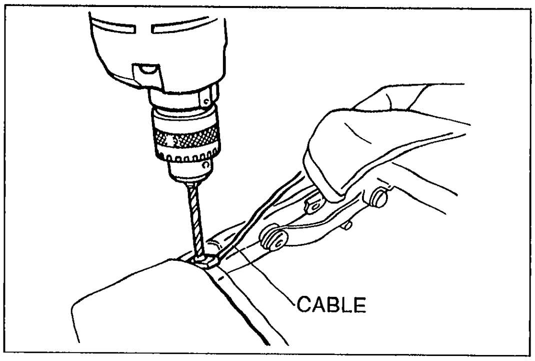
05U0SX-128

6. Remove the top fabric from the front header.



05U0SX-129

7. Remove the screws, and remove the cables from the rear of the link assembly.



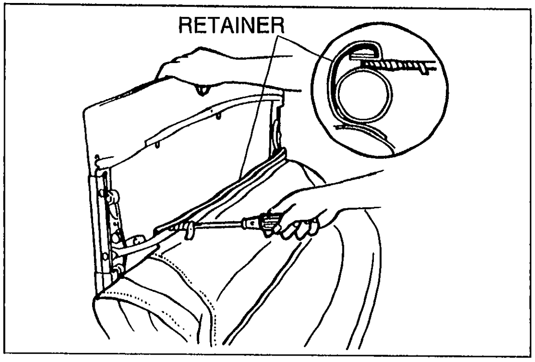
05U0SX-130

Note

- **Unfold the convertible top.**

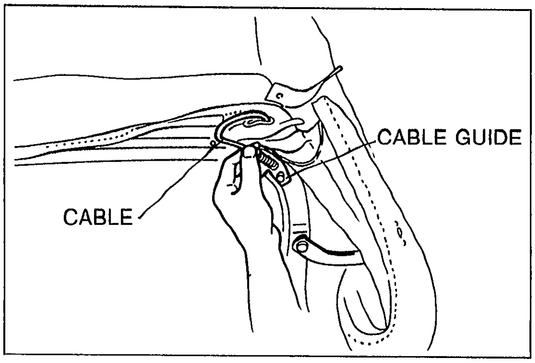
8. Remove the rivets from the link assembly with a drill, and remove the cables from the link assembly.

Drill size: ϕ4.0mm (ϕ0.16 in)



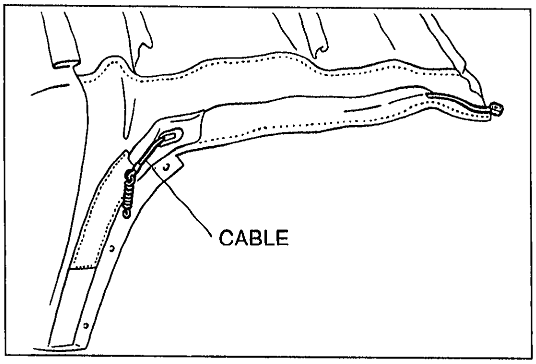
05U0SX-131

9. Peel off the Velcro at the rear bow.
10. Pry back the bow retainers with a protected screwdriver.
11. Remove the top fabric from the bows.



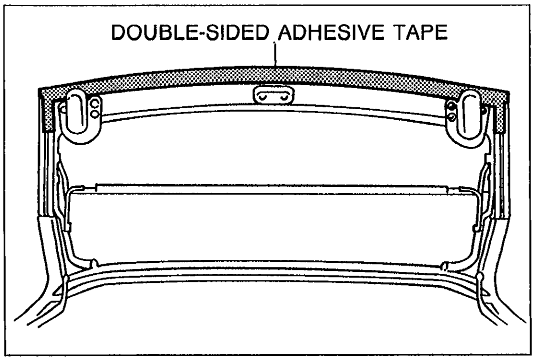
05U0SX-132

12. Remove the cables from the cable guide.
13. Remove the top fabric and cables from the link assembly.



05U0SX-133

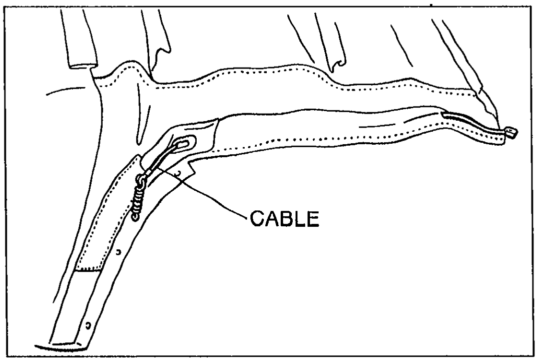
14. Remove the cables from the top fabric.


DOUBLE-SIDED ADHESIVE TAPE
05U0SX-134

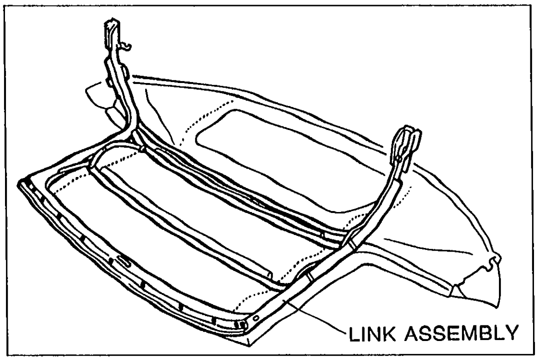
Installation Note

Top fabric

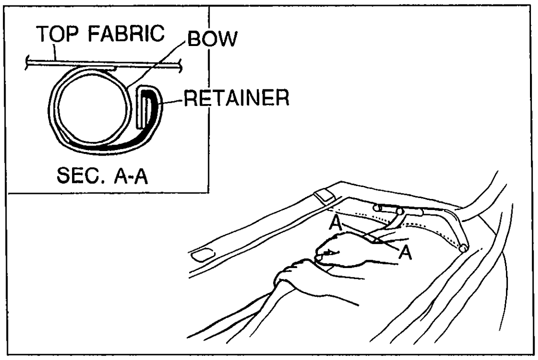
1. Remove the original double-sided adhesive tape from the front header.
2. Degrease the front header with ethyl alcohol.
3. Install new double-sided adhesive tape to the front header.


CABLE
05U0SX-135

4. Thread the cables into the top fabric.


LINK ASSEMBLY
05U0SX-136

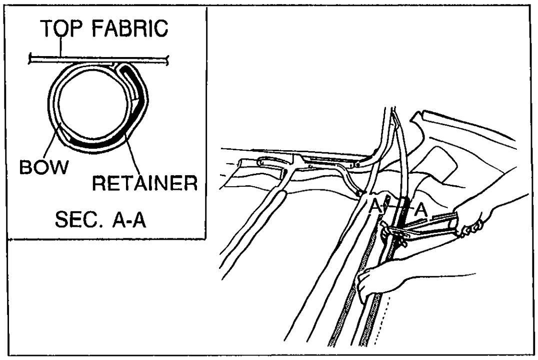
5. Place the link assembly over the top fabric.


TOP FABRIC
BOW
RETAINER
SEC. A-A
A
A
05U0SX-137

Note

- **Install the top fabric to the bows, beginning from the rear bow. Perform Steps 6, 7, and 8.**

6. Roll the top fabric over the bow retainer.
7. Hang the end of the top fabric on the bow retainer.

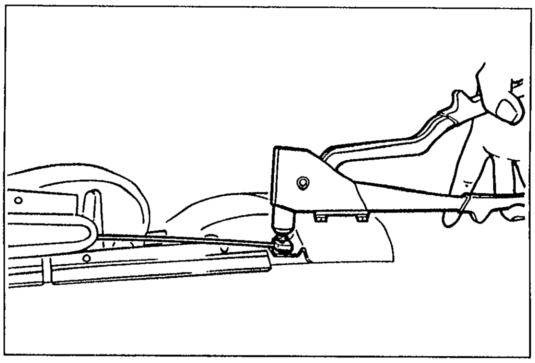

TOP FABRIC
BOW
RETAINER
SEC. A-A
A
A
05U0SX-138

8. Clamp the top fabric to the bow with protected water pump pliers.

Note

- **Pull the top fabric by hand to verify that it is held securely.**

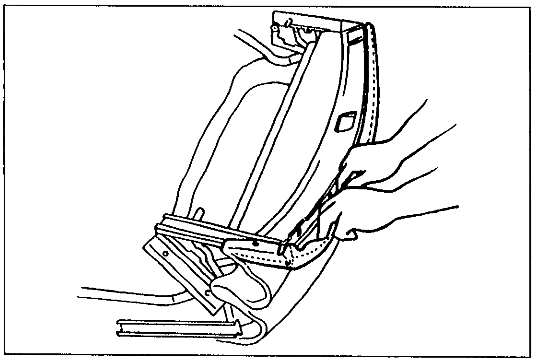
9. Affix the top fabric to the rear bow with the Velcro.



05U0SX-139

Note
- **Set the convertible top upright.**

10. Rivet the cables to the front of the link assembly.



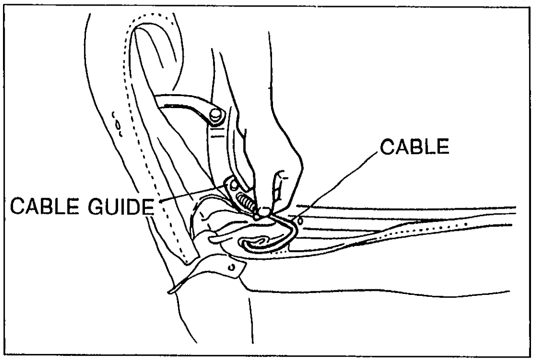
05U0SX-140

Note
- **Turn the convertible top over and fold it.**

11. Install the front of the top fabric to the front header.

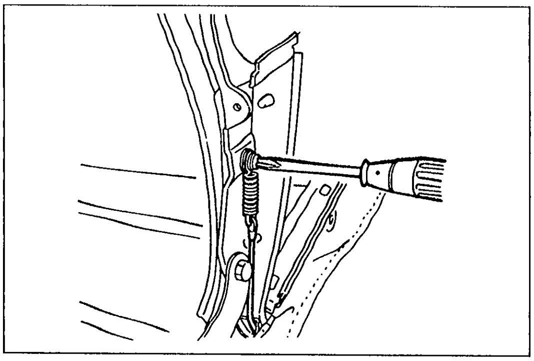
Note
- **Align the set plate and top fabric with the set plate mounting holes.**

12. Install the set plate to the link assembly.



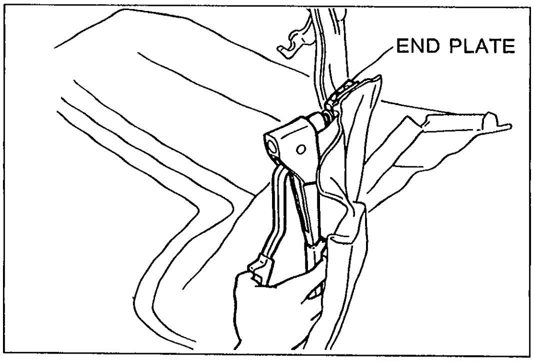
05U0SX-141

13. Pass the cables through the cable guides.



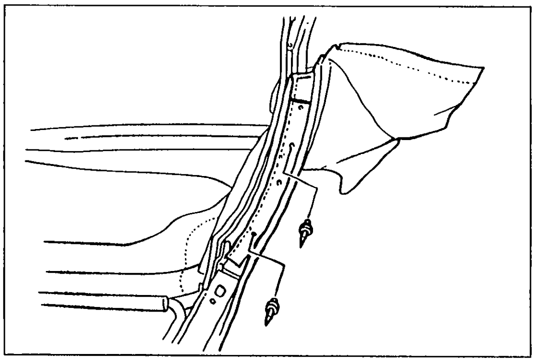
05U0SX-142

14. Install the cables to the rear of the link assembly.



05U0SX-143

15. Install the top fabric to the link assembly.
16. Install the end plates to the link assembly.

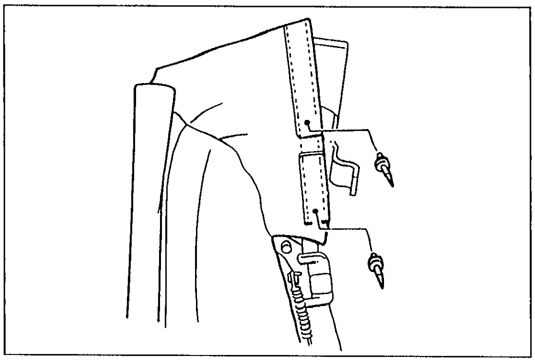


05U0SX-144

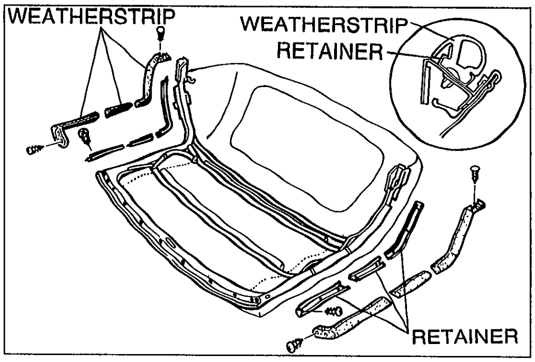
Note

- **Unfold the convertible top.**

17. Rivet the top fabric to the link assembly.



18. Install the retainers and weatherstrips to the link assembly.


WEATHERSTRIP
WEATHERSTRIP
RETAINER
RETAINER

05U0SX-145

Adjusting Small Sag

1. Raise the convertible top and lock the latch assemblies.
2. Use a steamer or steam wand to remove sags.
3. Allow top fabric to dry.

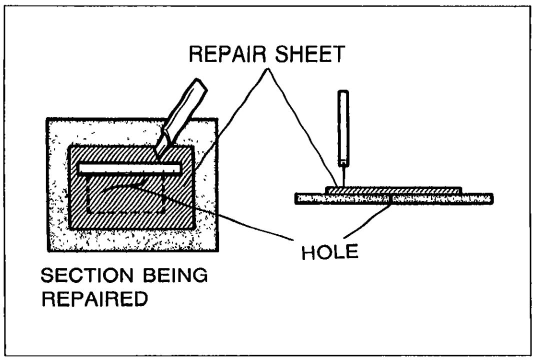
05U0SX-146

REPAIR OF TOP FABRIC

Note

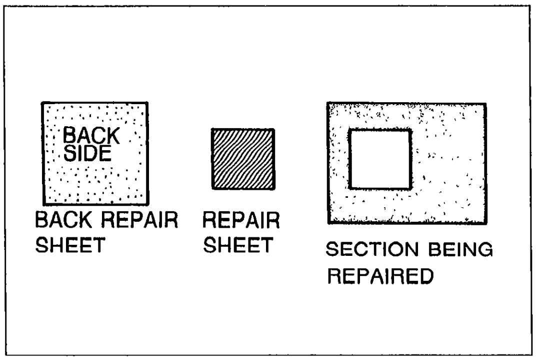
- **Repairing a hole in the top fabric differs from repairing a tear in the fabric. Refer to page S–69 for tear repair.**

Repair of Hole in Top Fabric


REPAIR SHEET
HOLE
SECTION BEING REPAIRED

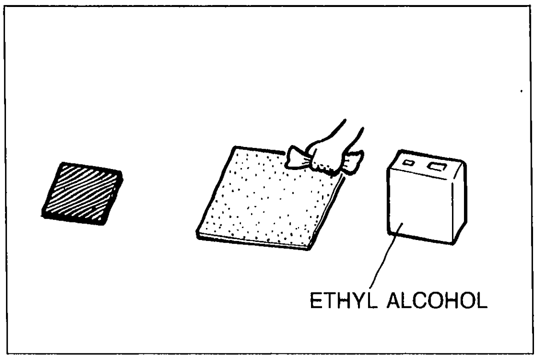
05U0SX-147

1. Place the **repair sheet** (NAY1 R1 211) over the damaged section. Cut both the top fabric and the repair sheet with a razor knife.


BACK SIDE
BACK REPAIR SHEET
REPAIR SHEET
SECTION BEING REPAIRED

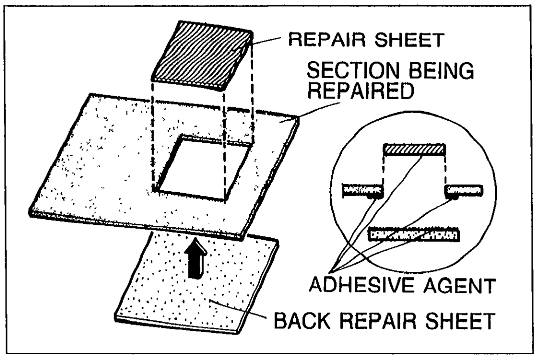
05U0SX-148

2. Cut another piece of repair sheet larger than the first for use as a back repair sheet.
3. Trim the top fabric and the repair sheets with scissors.


ETHYL ALCOHOL

77A14X-028

4. Degrease the repair sheets with ethyl alcohol.

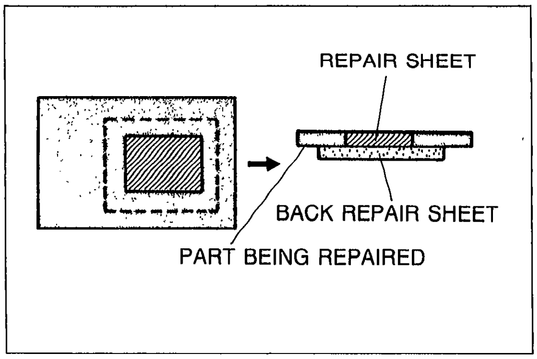

REPAIR SHEET
SECTION BEING REPAIRED
ADHESIVE AGENT
BACK REPAIR SHEET

05U0SX-149

5. Apply **adhesive agent** (K180 W0 313) or equivalent to the part being repaired, to the repair sheet, and to the back repair sheet.

Note

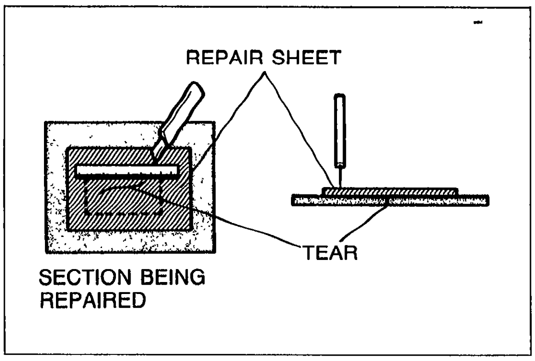
- **Apply a substantial amount of the adhesive agent to the cloth.**
- **Let it stand for a few minutes.**


REPAIR SHEET
BACK REPAIR SHEET
PART BEING REPAIRED

05U0SX-150

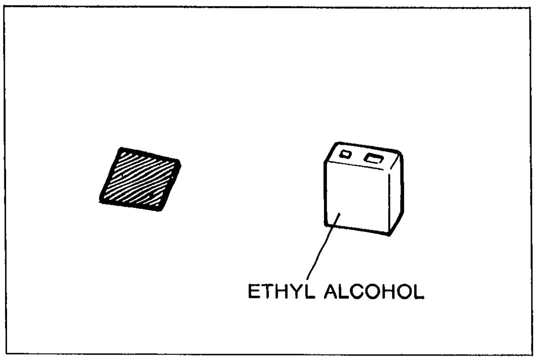
6. Insert the repair sheet into the section of the top fabric being repaired. Then install the back repair sheet from the underside.
7. Press the repair sheets firmly together.
8. Let the top fabric stand until the adhesive agent is fully dry.

Repair of Tear in Top Fabric


REPAIR SHEET
TEAR
SECTION BEING REPAIRED

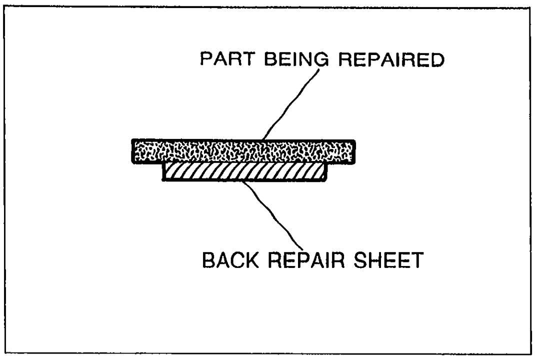
05U0SX-151

1. Cut a piece of **repair sheet** (NAY1 R1 211) larger than the damaged section for use as a back repair sheet.


ETHYL ALCOHOL

97U0SX-239

2. Degrease the repair sheet with ethyl alcohol.


PART BEING REPAIRED
BACK REPAIR SHEET

05U0SX-152

3. Apply **adhesive agent** (K180 W0 313) or equivalent to the part being repaired and to the back repair sheet.

Note
- **Apply a substantial amount of the adhesive agent to the cloth.**
- **Let it stand for a few minutes.**

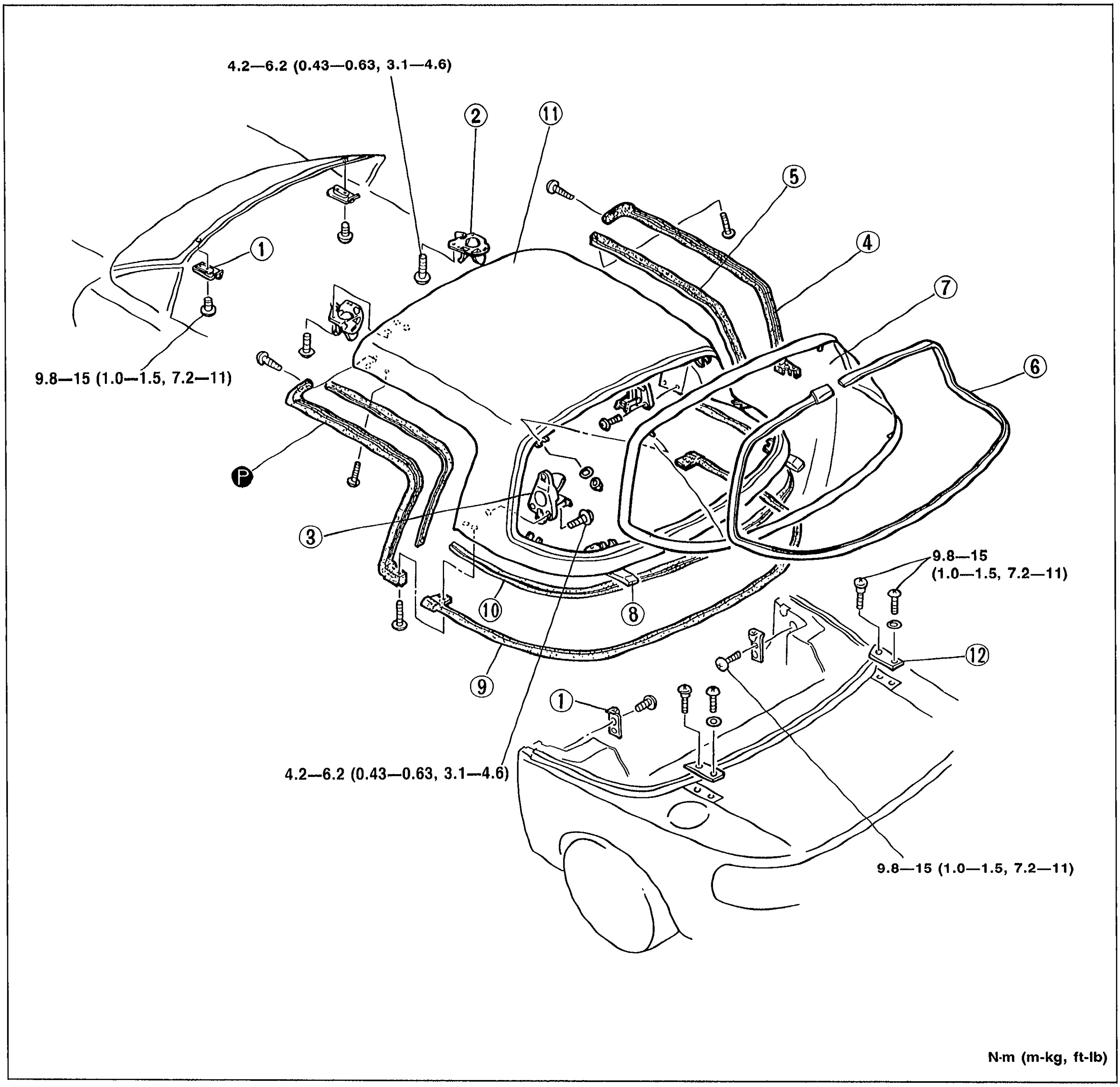
4. Install the back repair sheet from the underside.
5. Press the repair sheets firmly together.
6. Let the top fabric stand until the adhesive agent is fully dry.

DETACHABLE HARD TOP

COMPONENTS

Disassembly / Assembly

1. Disassemble in the order shown in the figure.
2. Assemble in the reverse order of disassembly.


4.2—6.2 (0.43—0.63, 3.1—4.6)
②
⑪
⑤
①
④
⑦
⑥
9.8—15 (1.0—1.5, 7.2—11)
Ⓟ
③
9.8—15
(1.0—1.5, 7.2—11)
⑩
⑧
⑫
⑨
①
4.2—6.2 (0.43—0.63, 3.1—4.6)
9.8—15 (1.0—1.5, 7.2—11)
N·m (m-kg, ft-lb)

05U0SX-153

1. Striker
2. Top latch assembly
   Adjustment................................ page S–71
3. Side latch assembly
   Adjustment................................ page S–71
4. Weatherstrip
   Adjustment................................ page S–72
5. Retainer
6. Rear window molding
   Installation................................ page S–29
7. Rear window glass
   Removal / Insallation.................. page S–42
8. Rear deck latch assembly
9. Rear weatherstrip
10. Edge protector
11. Detachable hard top
12. Rear deck plate

CONVERTIBLE TOP, DETACHABLE HARD TOP

Adjustment

Convertible top/Detachable hard top

The alignment of either top to the windshield header may be adjusted up, down, fore, and aft by turning the respective top latch assembly adjusting nut.

Adjustment procedure

1. Fold the protector away from the adjusting nut.
2. When the adjusting nut is turned clockwise:
   Clearance (A) and height (B) of the top become less.
3. When the adjusting nut is turned counterclockwise:
   Clearance (A) and height (B) of the top become greater.

Caution

- **Secure the adjusting nut with the protector after completing any adjustment.**

Detachable hard top

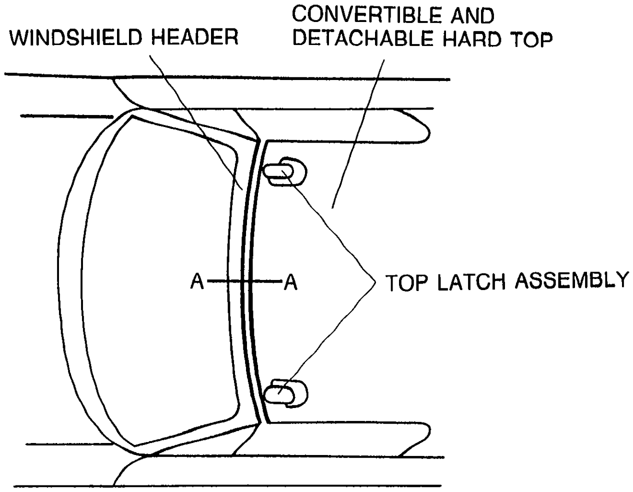
If engagement of the striker and the side latch assembly is too tight or too loose, adjustment is made through the latch assembly adjusting nut.

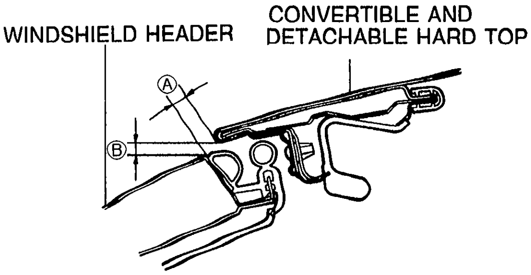
Adjustment procedure

1. Fold the protector away from the adjusting nut.
2. When the adjusting nut is turned clockwise:
   Engagement of the striker and the side latch assembly becomes tighter.
3. When the adjusting nut is turned counterclockwise:
   Engagement of the striker and the side latch assembly becomes looser.

Caution

- **Secure the adjusting nut with the protector after completing any adjustment.**

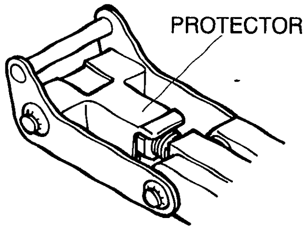

WINDSHIELD HEADER
CONVERTIBLE AND DETACHABLE HARD TOP
A
A
TOP LATCH ASSEMBLY

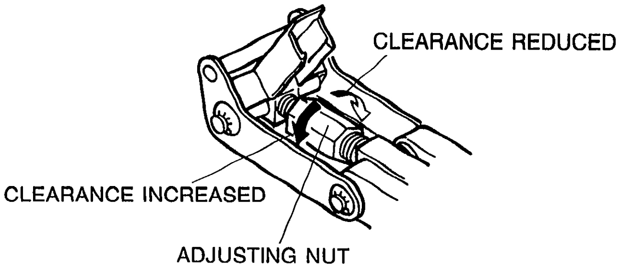

WINDSHIELD HEADER
CONVERTIBLE AND DETACHABLE HARD TOP
Ⓐ
Ⓑ

SEC. A-A

Ⓐ	5 ± 2 (0.2 ± 0.08)
Ⓑ	0 ± 2 (0 ± 0.08)

mm (in)



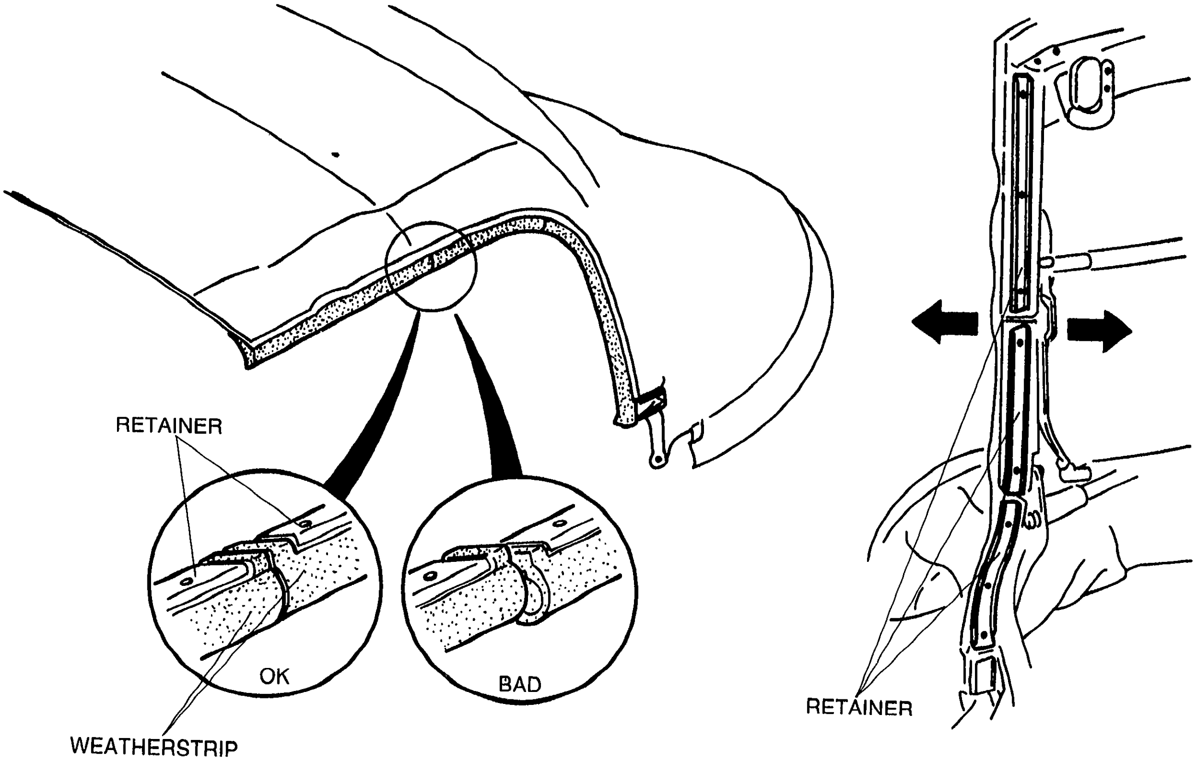

CLEARANCE REDUCED
CLEARANCE INCREASED
ADJUSTING NUT

Weatherstrip (Convertible top/Detachable hard top)

If there is any misalignment (lateral or vertical), adjust by following the steps below:

Adjustment procedure

1. Remove the weatherstrip in question.
2. Loosen the retainer screw and adjust the retainer as necessary.
3. Tighten the screw, and reinstall the weatherstrip.
4. Recheck the alignment.



WEATHERSTRIP INSTALLATION

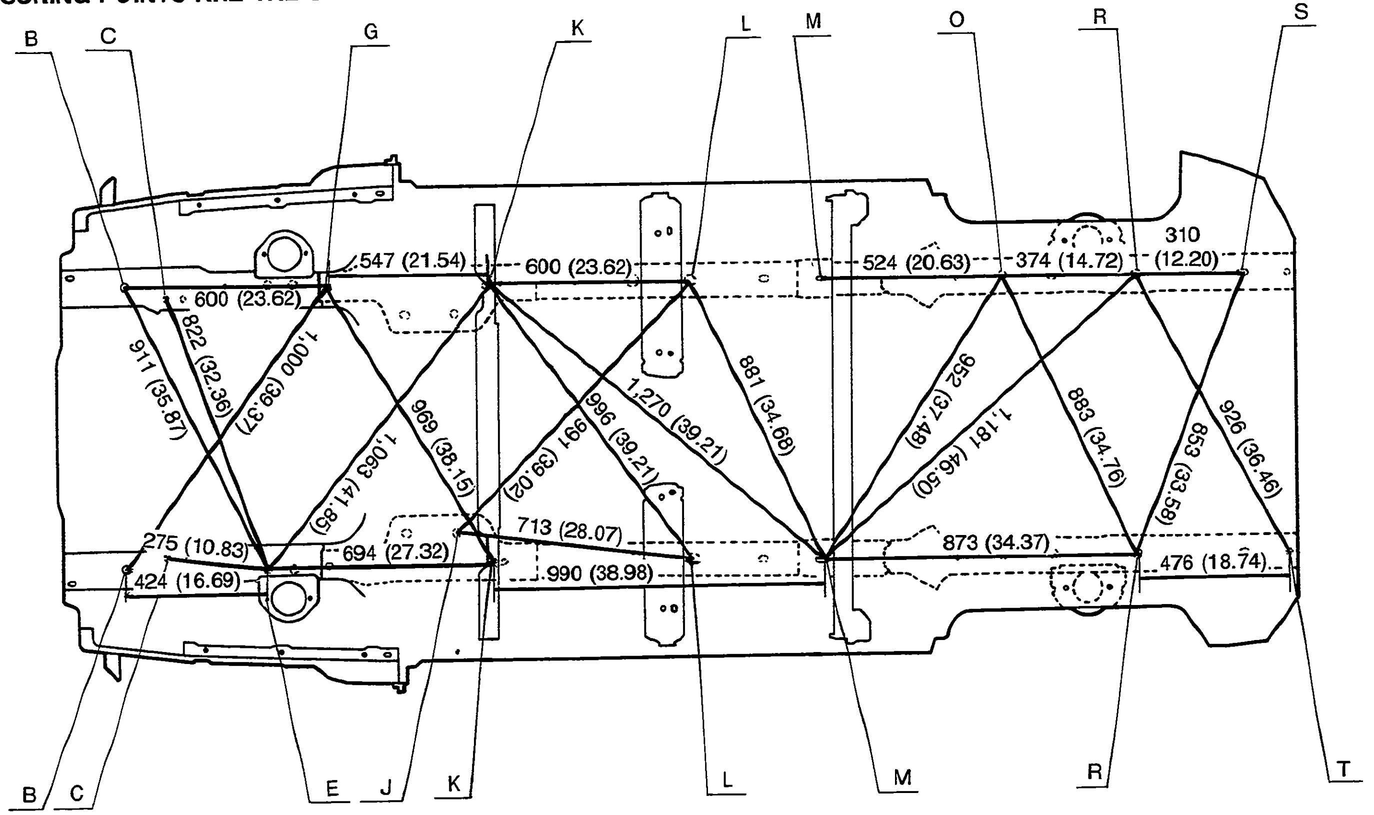
05U0SX-155

UNDERBODY DIMENSIONS

UNDERBODY STRAIGHT-LINE DIMENSIONS

ALL MEASURING POINTS ARE LOCATED SYMMETRICALLY

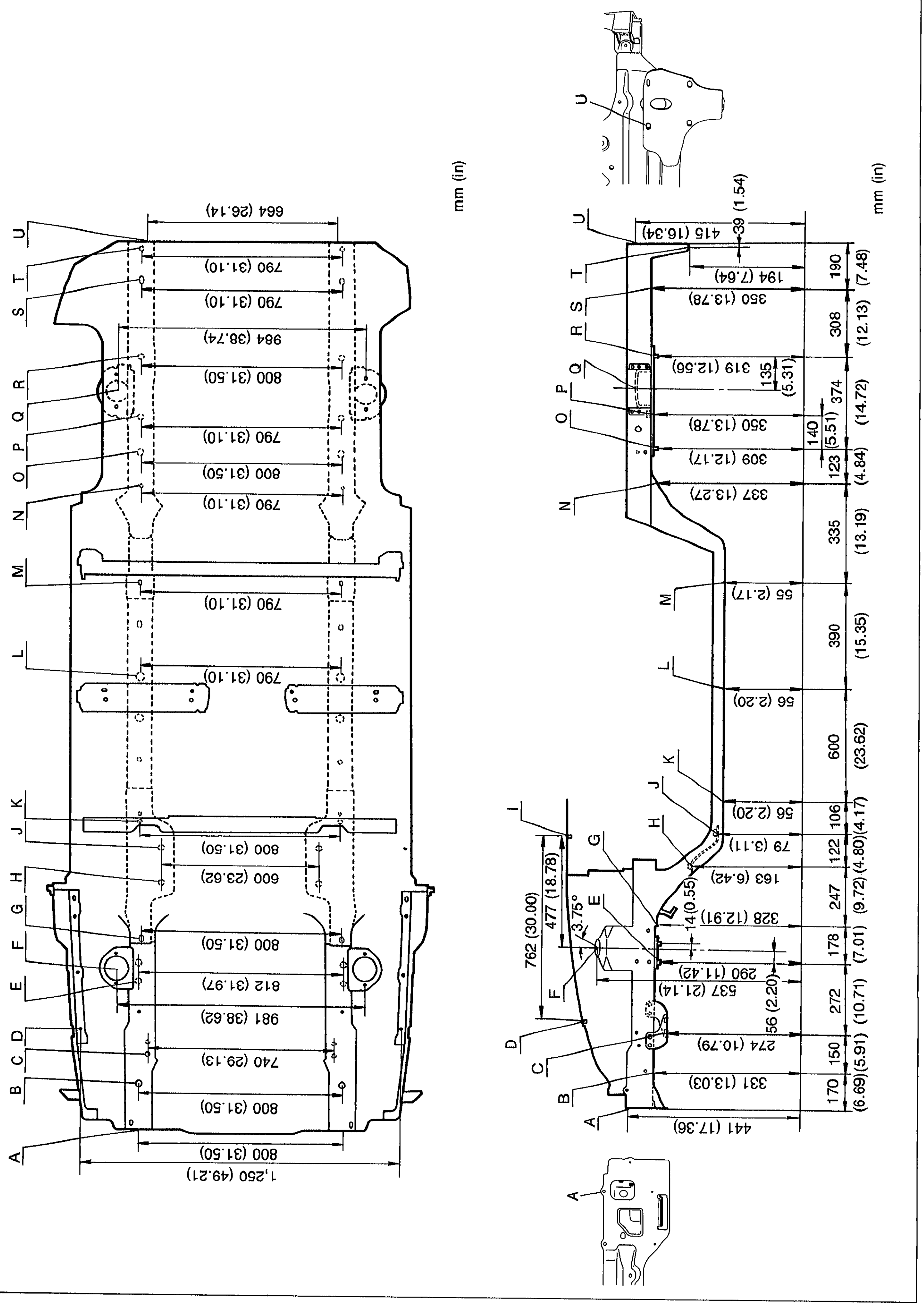
ALL MEASURING POINTS ARE THE CENTER OF THE REFERENCE HOLE OR MOUNTING NUT AND BOLT


B
C
G
K
L
M
O
R
S
547 (21.54)
600 (23.62)
524 (20.63)
374 (14.72)
310 (12.20)
600 (23.62)
911 (35.87)
822 (32.36)
1,000 (39.37)
969 (38.15)
1,063 (41.85)
991 (39.02)
996 (39.21)
1,270 (39.21)
881 (34.68)
952 (37.48)
1,181 (46.50)
883 (34.76)
853 (33.58)
926 (36.46)
275 (10.83)
424 (16.69)
694 (27.32)
713 (28.07)
990 (38.98)
873 (34.37)
476 (18.74)
B
C
E
J
K
L
M
R
T

B : FRAME REFERENCE HOLE φ16 (0.63)
C : STABILIZER MOUNTING NUT
E : SUSPENSION MOUNTING BOLT
G : FRAME REFERENCE HOLE 12x18 (0.47x0.71)
J : CROSSMEMBER MOUNTING NUT
K : FRAME REFERENCE HOLE φ12 (0.47)
L : FRAME REFERENCE HOLE φ20 (0.79)
M : FRAME REFERENCE HOLE 12x18 (0.47x0.71)
O : SUSPENSION MOUNTING BOLT
R : SUSPENSION MOUNTING BOLT
S : FRAME REFERENCE HOLE 16x22 (0.63x0.87)
T : BUMPER BRACKET REFERENCE HOLE φ7 (0.28)

mm (in)

UNDERBODY PROJECTED DIMENSIONS


mm (in)
A
B
C
D
E
F
G
H
J
K
L
M
N
O
P
Q
R
S
T
U
664 (26.14)
790 (31.10)
790 (31.10)
984 (38.74)
800 (31.50)
790 (31.10)
800 (31.50)
790 (31.10)
790 (31.10)
790 (31.10)
800 (31.50)
600 (23.62)
800 (31.50)
812 (31.97)
981 (38.62)
740 (29.13)
800 (31.50)
800 (31.50)
1,250 (49.21)
I
415 (16.34)
39 (1.54)
194 (7.64)
350 (13.78)
319 (12.56)
135 (5.31)
350 (13.78)
140 (5.51)
309 (12.17)
337 (13.27)
55 (2.17)
56 (2.20)
56 (2.20)
79 (3.11)
163 (6.42)
14 (0.55)
328 (12.91)
3.75°
762 (30.00)
477 (18.78)
290 (11.42)
537 (21.14)
56 (2.20)
274 (10.79)
331 (13.03)
441 (17.36)
190 (7.48)
308 (12.13)
374 (14.72)
123 (4.84)
335 (13.19)
390 (15.35)
600 (23.62)
106 (4.17)
122 (4.80)
247 (9.72)
178 (7.01)
272 (10.71)
150 (5.91)
170 (6.69)

A : BUMPER BRACKET MOUNTING NUT
B : FRAME REFERENCE HOLE ϕ16 (0.63)
C : STABILIZER MOUNTING NUT
D : FRONT FENDER PANEL MOUNTING NUT
E : SUSPENSION MOUNTING BOLT
F : FRONT MOUNTING BLOCK
G : FRAME REFERENCE HOLE 12x18 (0.47x0.71)
H : CROSSMEMBER MOUNTING NUT
I : FRONT FENDER PANEL MOUNTING NUT
J : CROSSMEMBER MOUNTING NUT
K : FRAME REFERENCE HOLE ϕ12 (0.47)
L : FRAME REFERENCE HOLE ϕ20 (0.79)
M : FRAME REFERENCE HOLE 12x18 (0.47x0.71)
N : FRAME REFERENCE HOLE ϕ12 (0.47)
O : SUSPENSION MOUNTING BOLT
P : SUSPENSION MOUNTING NUT
Q : REAR MOUNTING BLOCK
R : SUSPENSION MOUNTING BOLT
S : FRAME REFERENCE HOLE 16x22 (0.63x0.87)
T : BUMPER BRACKET REFERENCE HOLE ϕ7 (0.28)
U : BUMPER MOUNTING HOLE 12x14 (0.47x0.55)

mm (in)

05U0SX-158

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05U0TX-001

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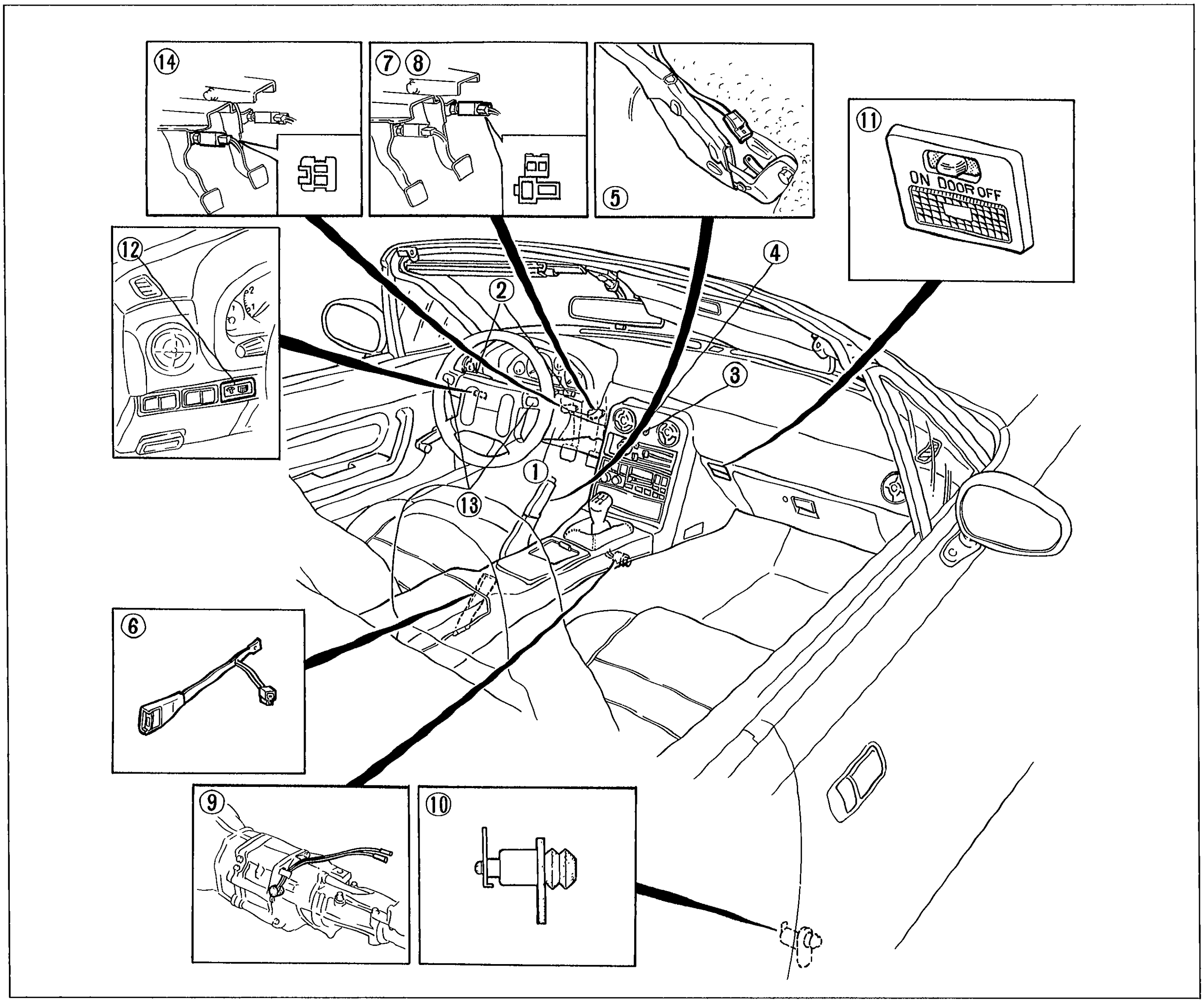

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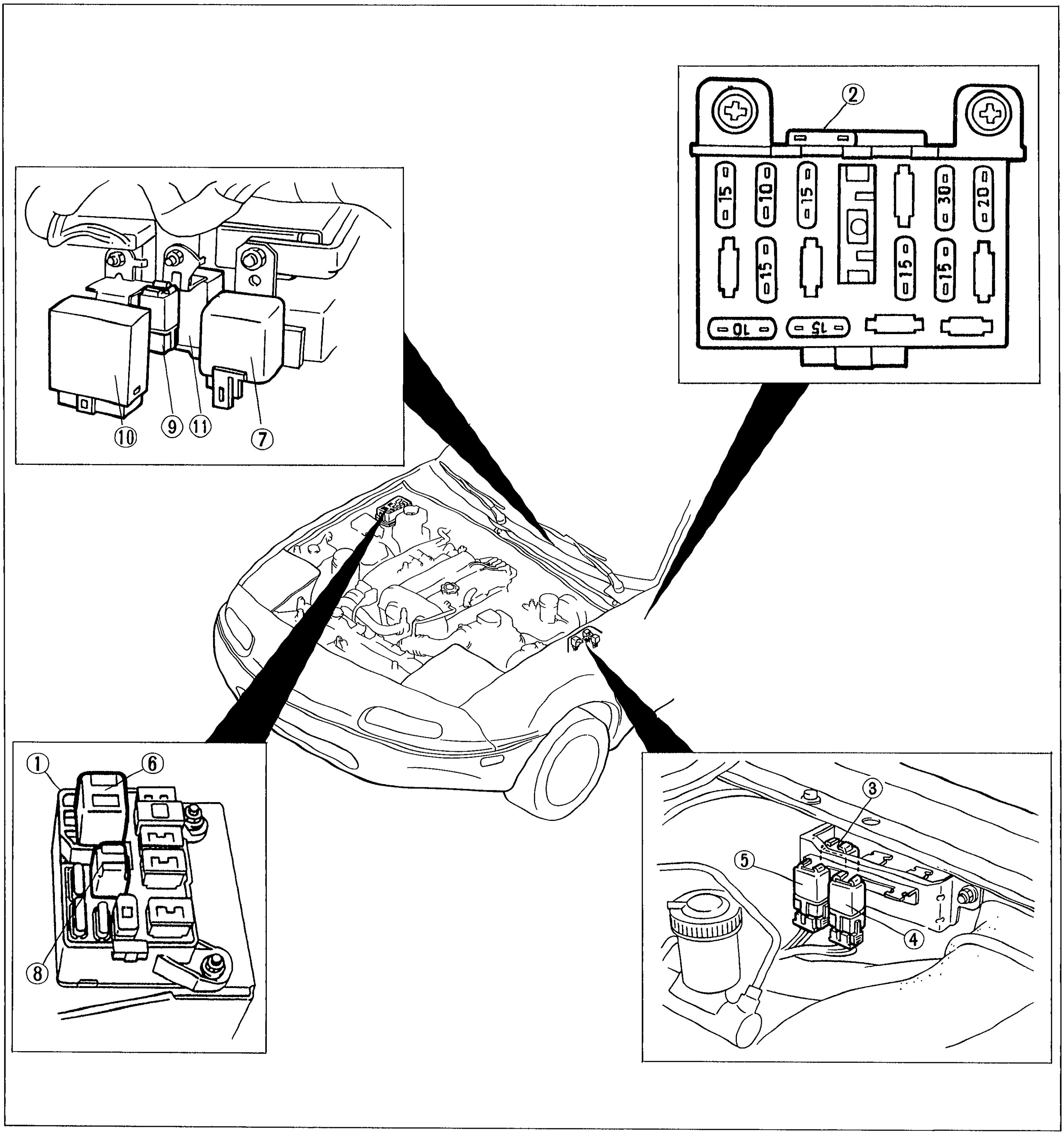

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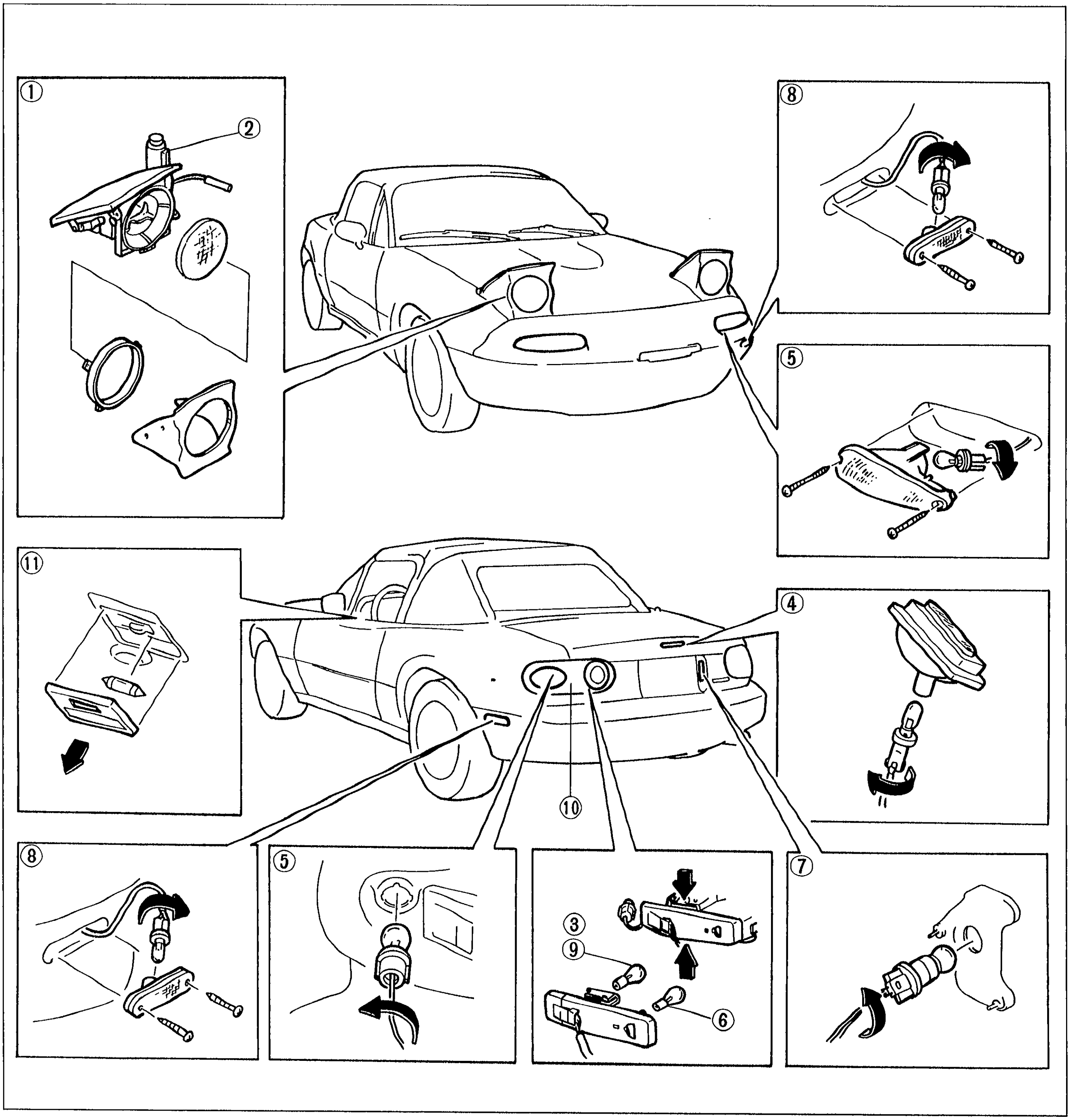
LIGHTS



05U0TX-004

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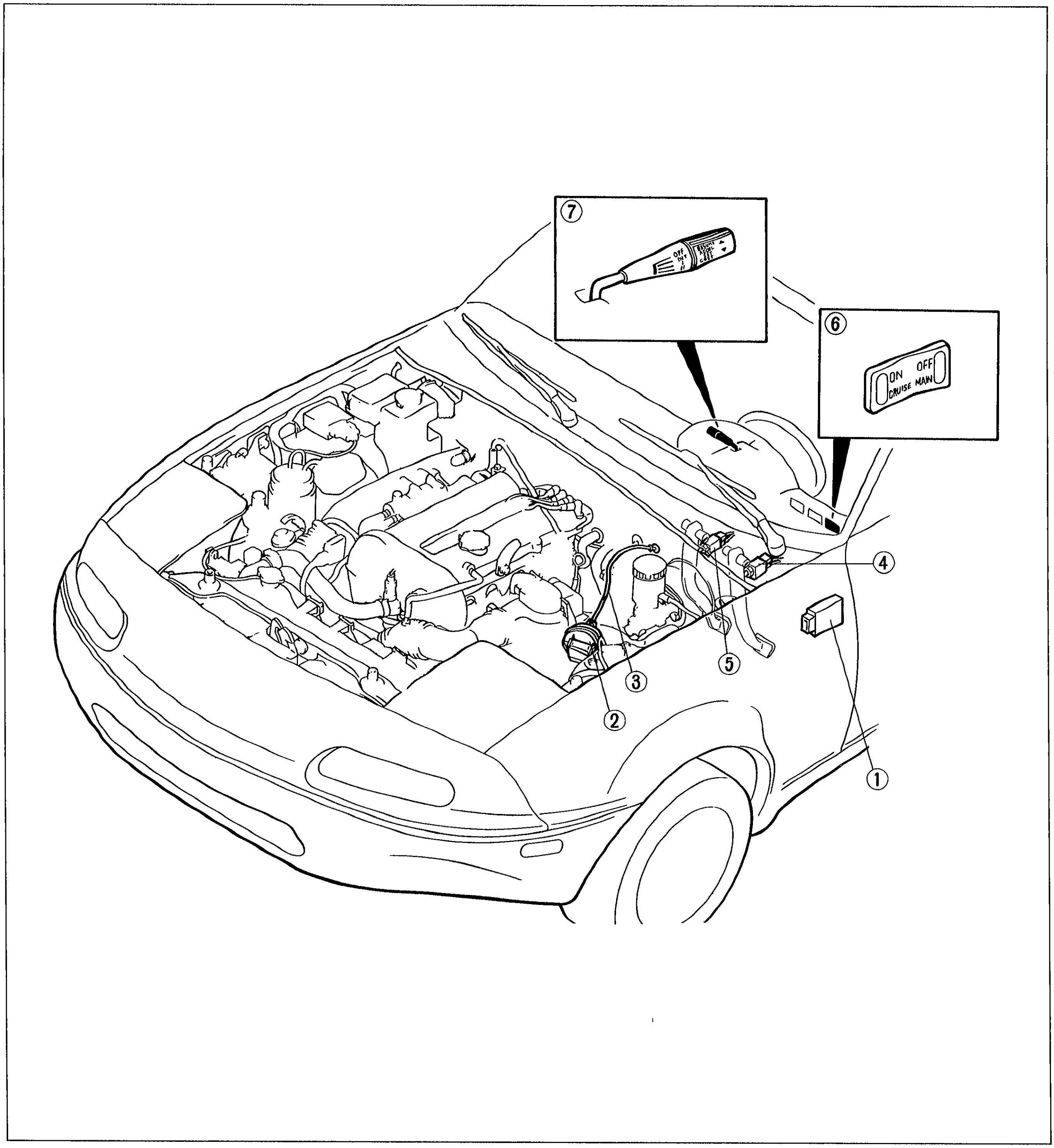
CRUISE CONTROL SYSTEM



05U0TX-005

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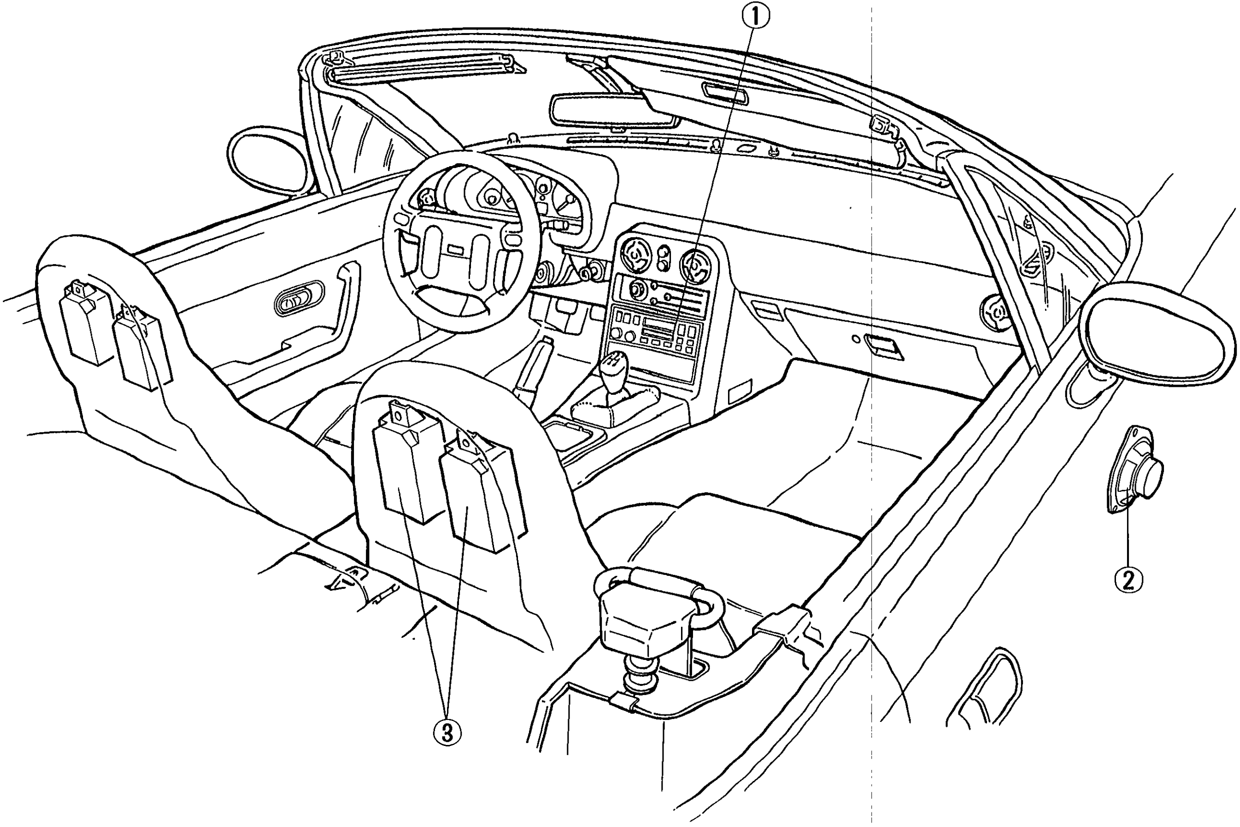
AUDIO SYSTEM



05U0TX-006

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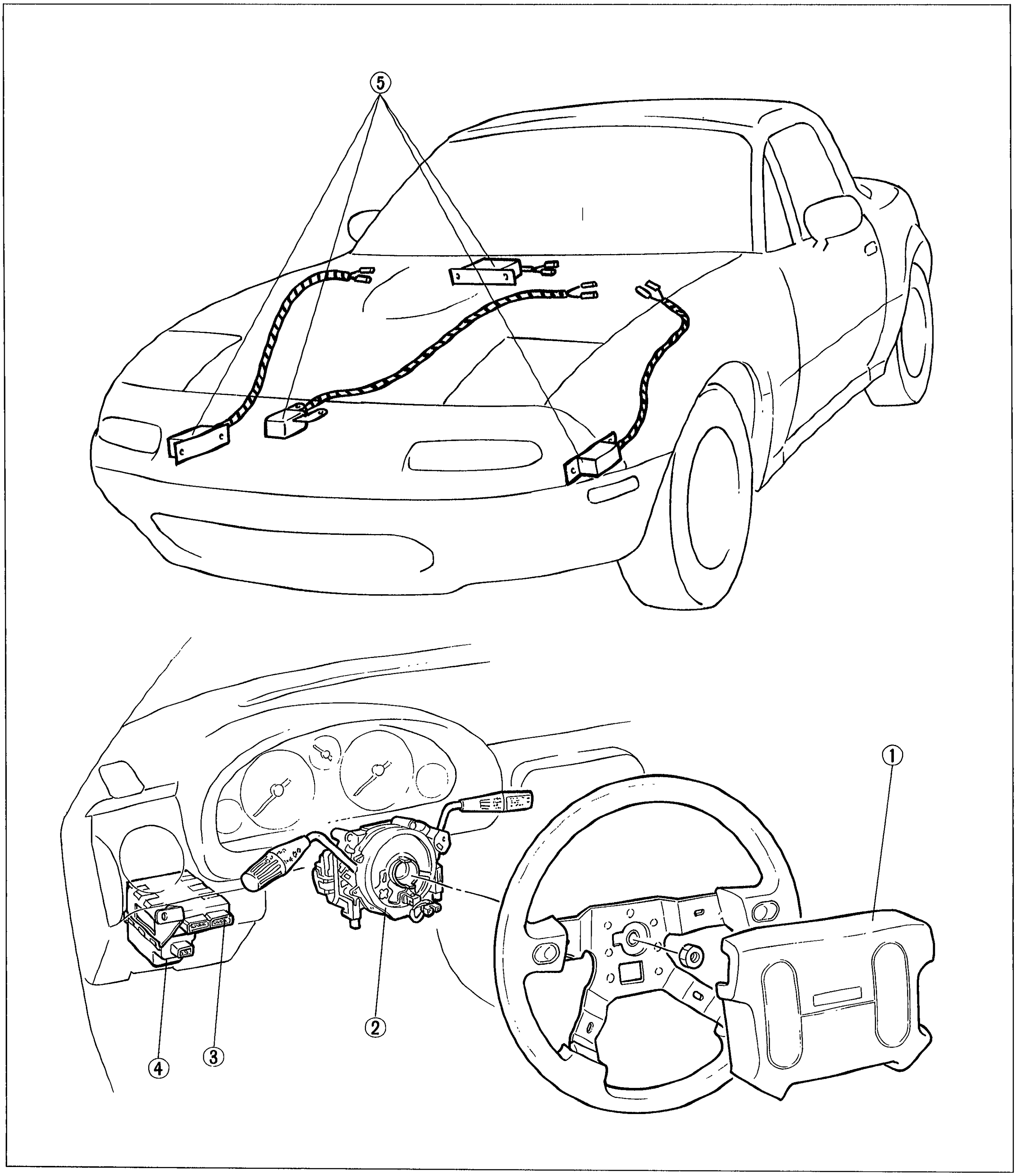
AIR BAG SYSTEM



05U0TX-007

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TROUBLESHOOTING

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Air bag system	• Air bag warning lamp flashes	T–138

05U0TX-008

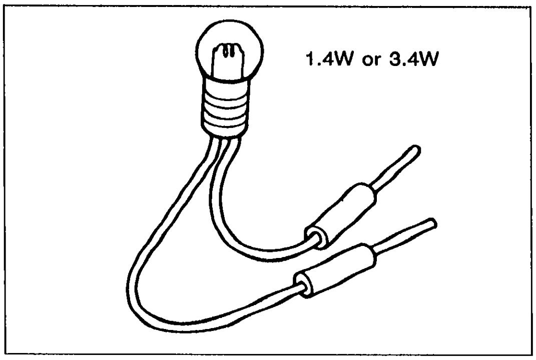
OUTLINE

HOW TO USE THIS SECTION

Information regarding removal and installation of electrical equipment is given in **SECTION S**.
Understanding will be easier if this section is used in conjunction with the **WIRING DIAGRAMS**.

9MU0TX-008

ELECTRICAL TROUBLESHOOTING TOOLS



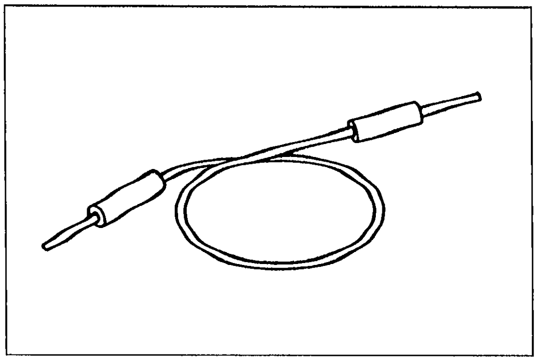
05U0TX-273

Test Light

The test light, as shown in the figure, uses a 12V bulb. The two leads should be connected to probes. The test light is used for simple voltage checks and to check for open circuits.

Caution

- **When checking a control unit, never use a bulb over 3.4W.**



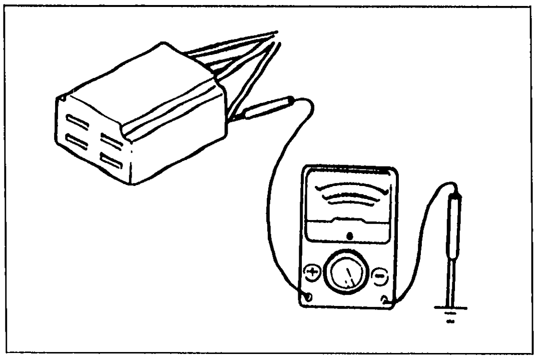
61G15X-002

Jumper Wire

The jumper wire is used for testing by short-circuiting switch terminals and for verifying the condition of ground connections.

Caution

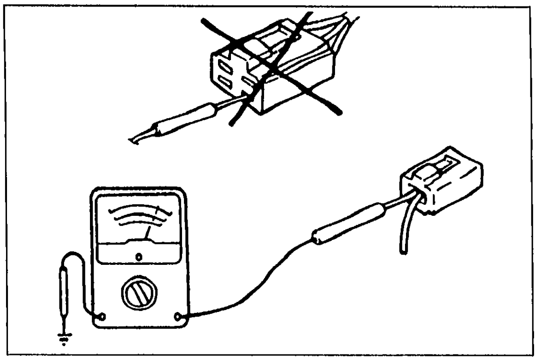
- **Do not connect the jumper wire between a power source line and body ground because this may cause burning or other damage to harnesses or electronic components.**



69G15X-003

Voltmeter

The DC voltmeter is used for measuring circuit voltage. A voltmeter with a range of 15V or more is used by connecting the positive (+) probe (red lead) to the point where voltage is to be measured and the negative (–) probe (black lead) to the body ground.



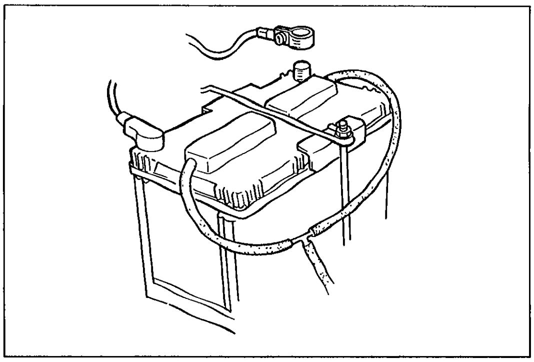
63U15X-005

Ohmmeter

The ohmmeter is used to measure the resistance between two points in a circuit, and is also used to check for continuity and diagnosis of short circuits.

Caution

- **Do not attempt to connect the ohmmeter to any circuit to which voltage is applied because this may burn or otherwise damage the ohmmeter.**



05U0TX-009

GENERAL PRECAUTION

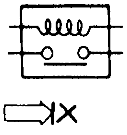
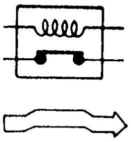
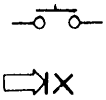
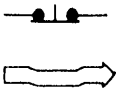
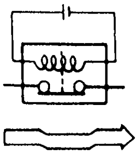
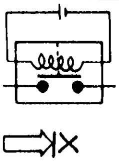
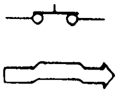
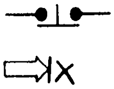
Before Disconnecting Battery Cables

The optional audio unit has an anti-theft function that is activated when the battery power is disconnected. Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)

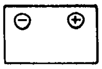
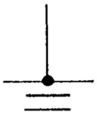
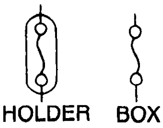
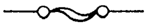
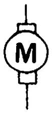
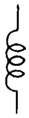
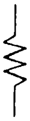
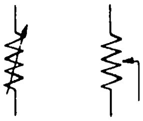
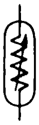
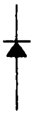
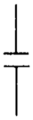
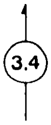
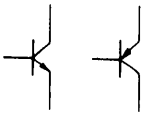
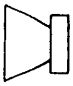
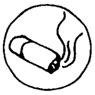
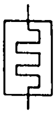
ELECTRICAL SYMBOLS

Switches and Relays

There is an NC (normally closed) and NO (normally open) indication for switches and relays that shows when no change of operation conditions has occurred.

	Relay		Switch	
	NO type relay	NC type relay	NO switch	NC switch
Not in operation (No power supply)	 STOP	 FLOW	 STOP	 FLOW
In operation (Power supply)	 FLOW	 STOP	 FLOW	 STOP

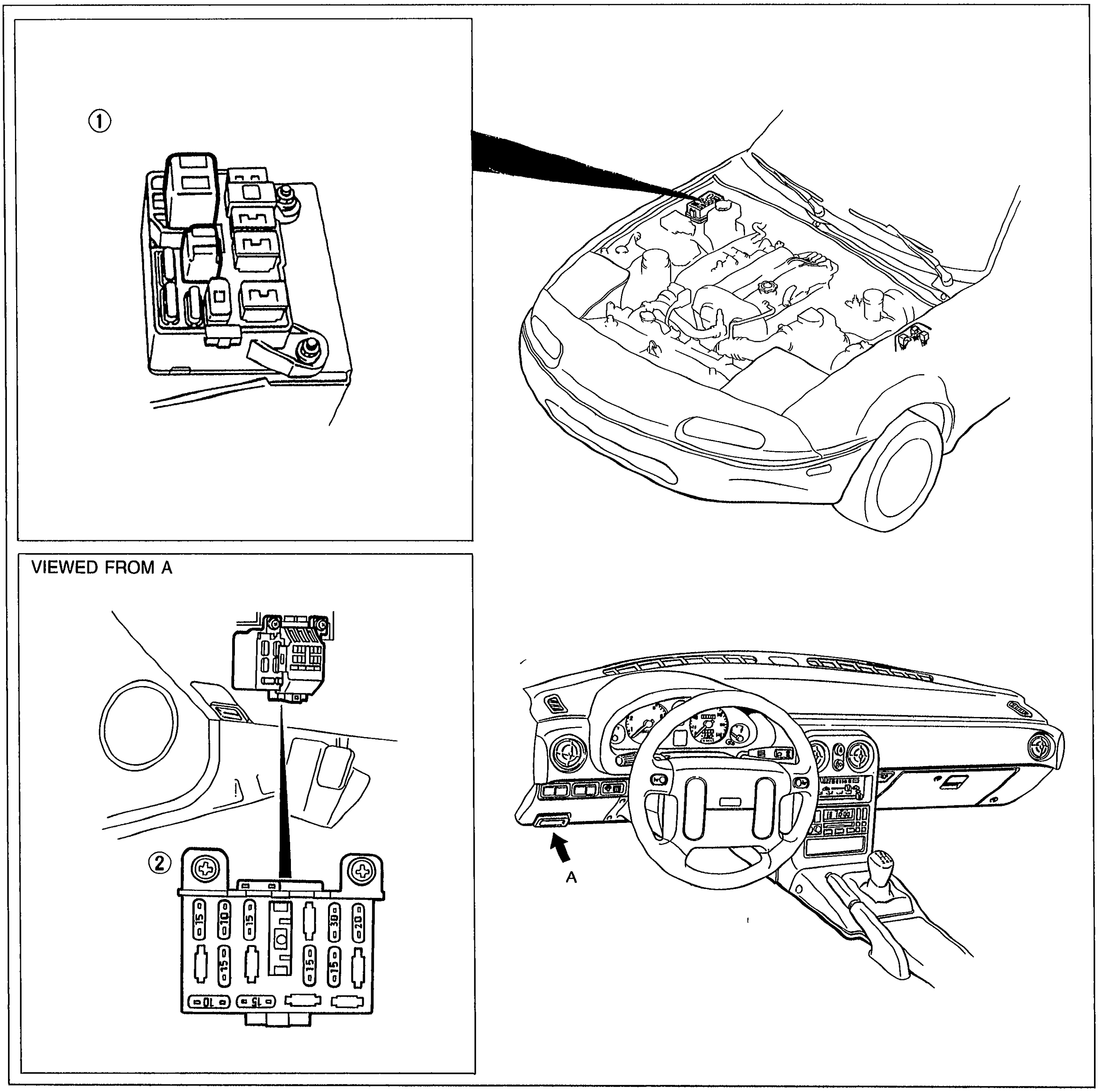
Other Electrical Symbols

			
BATTERY	BODY GROUND	FUSE	FUSIBLE LINK
			
MOTOR	COIL, SOLENOID	RESISTOR	VARIABLE RESISTOR
			
THERMISTER	DIODE	CONDENSER	LIGHT
			
TRANSISTOR	SPEAKER	CIGARETTE LIGHTER	HEATER

69G15X-009

FUSE

STRUCTURAL VIEW



05U0TX-010

1. Main fuse block
2. Fuse box

DESCRIPTION

Main Fuse Block

The main fuse block is located on the right side of the engine compartment and it contains nine fuses and two relays.

Fuse Box

The fuse box is located above the dead pedal of the driver side. The fuse box cover shows the specified fuse locations.

A circuit breaker is contained in the fuse box for protection of the heater blower motor circuit.

05U0TX-011

SPECIFICATIONS

Main Fuse Block

Fuse	Amperes	Protected circuit
HEAD	30A	Headlight relay, Headlight switch
INJ	30A	Alternator, Diagnostic module (for air bag system)
MAIN	80A	Except circuits protected in main fuse block: INJ 30A, HEAD 30A, RETRACTOR 30A
BTN	40A	TNS relay, Headlight switch
COOLING FAN	30A	EGI main relay, Cooling fan relay
(AIR BAG)	10A	Backup battery (for air bag system)
(AD FAN)	20A	A/C relay
ST SIG	10A	Inhibitor relay, Circuit-opening relay
RETRACTOR	30A	Retractable headlight motors

05U0TX-506

Fuse Box

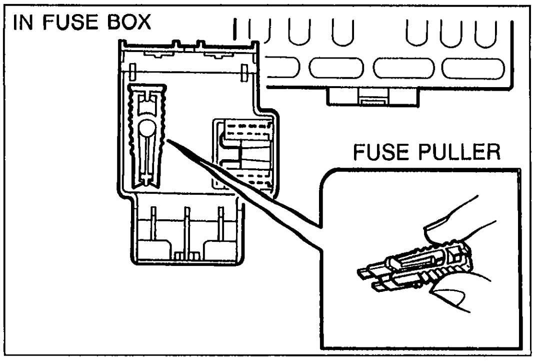
Fuse	Amperes	Protected circuit
ENGINE	15A	EGI main relay, Cooling fan relay
METER	10A	Instrument cluster, Turn signal switch, Timer and buzzer unit, Cruise control main switch
(AIR BAG)	15A	Diagnostic module
(POWER WIND)	30A	Power window switch
WIPER	20A	Blower switch, Wiper switch
TAIL	15A	Taillights, Side marker lights, License plate lights, Parking lights
STOP	15A	Stoplight switch, Horn switch, Cruise control unit
HAZARD	15A	Turn and hazard warning flasher unit
ROOM	10A	ECU, Key reminder switch, Audio unit
CIGAR	15A	Cigarette lighter, Audio unit

05U0TX-507

Fuse Color Code

Fuse amperes	Color code	Fuse type
10A	Red	Plate type
15A	Light blue	
20A	Yellow	
30A	Light green	
30A	Pink	Cartridge type
80A	Black	

05U0TX-012



05U0TX-013

REPLACEMENT

Note

- **If a fuse again fails after it has been replaced, there is probably a short in the circuit.**
- **Check the circuit which is protected by the failed fuse, referring to the specifications table.**

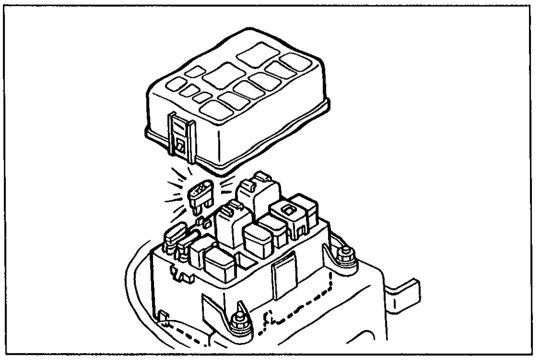
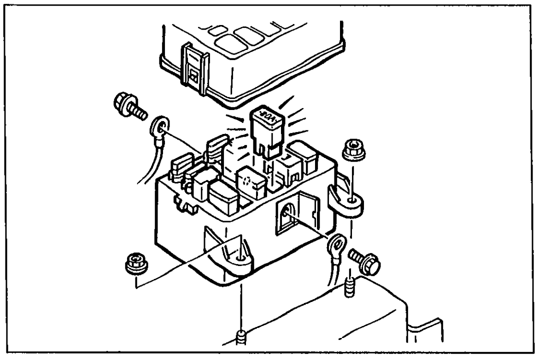

05U0TX-014

Plate type

1. Disconnect the negative battery cable.
2. Using the fuse puller supplied in the fuse box, removed replace the failed fuse.
3. Reconnect the negative battery cable.

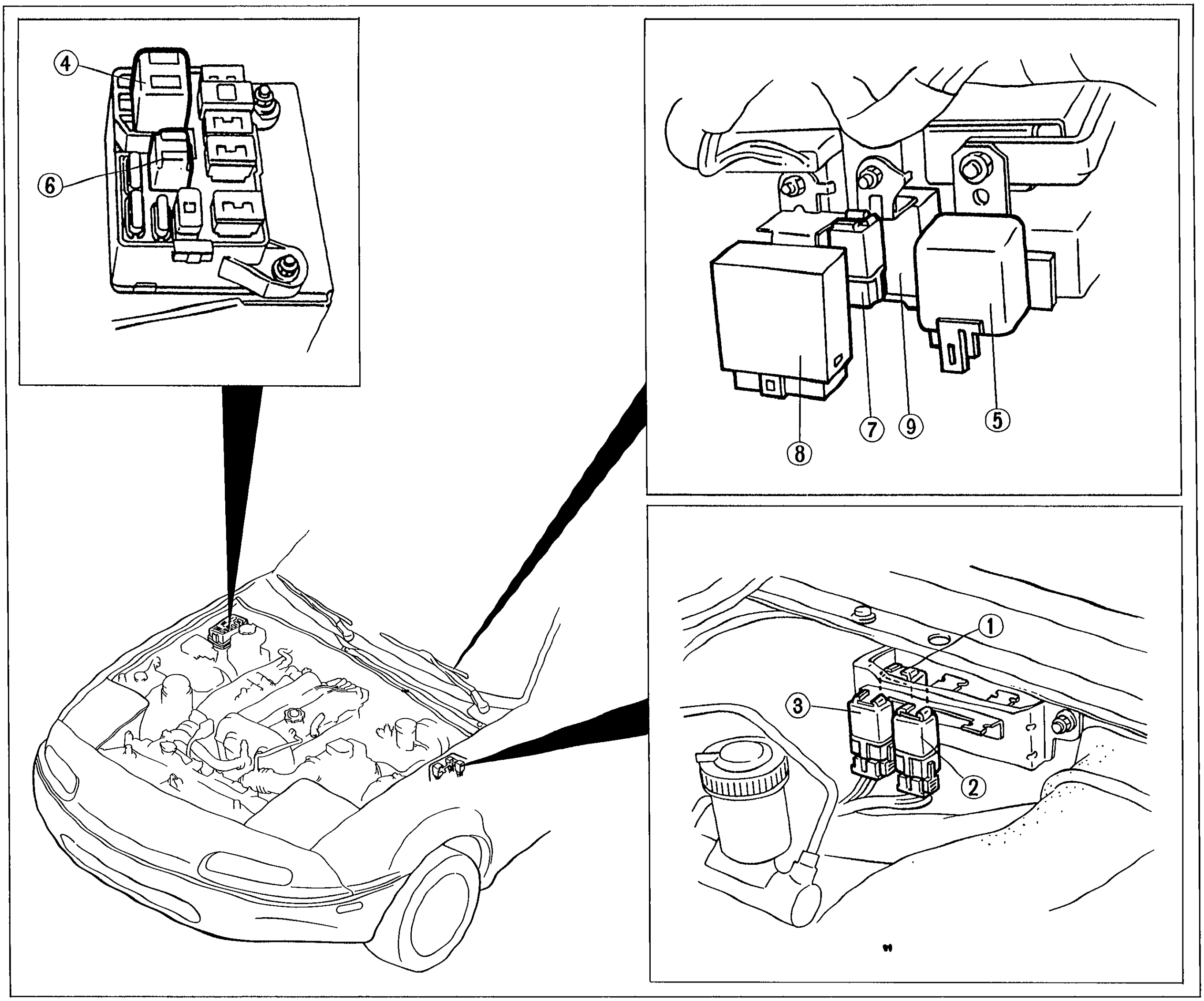

05U0TX-015

Cartridge-type
80A fuse (Black)

1. Disconnect the negative battery cable.
2. Remove the fuse block mounting nuts, and remove the service cover.
3. Remove the fuse installation bolts, and pull out the fuse.
4. Install the new fuse and the fuse installation bolts.
5. Install the main fuse block.
6. Reconnect the negative battery cable.

RELAY

STRUCTURAL VIEW



1. Headlight relay
2. TNS relay
3. Retractor relay
4. EGI main relay
5. Circuit-opening relay
6. Cooling fan relay
7. Horn relay
8. Turn and hazard warning flasher unit
9. Timer and buzzer unit

Note

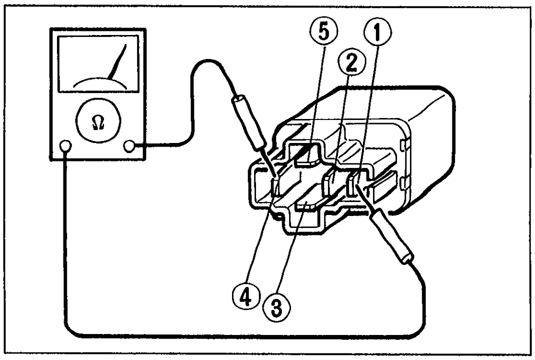
- **For inspection of the following relays, refer to specified Section.**
  - **EGI main relay.. Refer to Section F**
  - **Circuit-opening relay.. Refer to Section F**
  - **A/C relay .... Refer to Section U**

DESCRIPTION

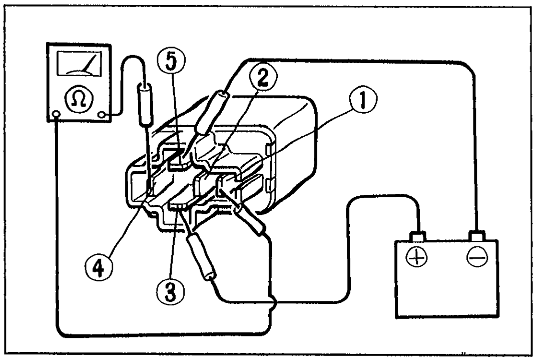
The DRL control unit which is equipped for Canada vehicles controls the turn lights operation.
Except bellow conditions, whenever the ignition switch is in ON or START position, front turn signal lights will illuminate to be running lights.

- Headlight switch ON.
- Turn signal switch ON.
- Hazard switch ON.
- Parking brake switch ON.

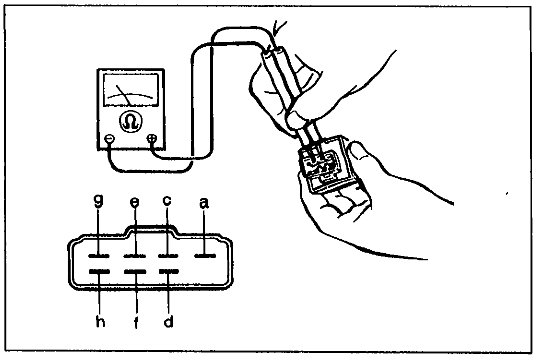
05U0TX-017



05U0TX-018



05U0TX-019



05U0TX-020

HEADLIGHT RETRACTOR RELAY

Inspection

1. Check continuity between terminals of the relay.

Terminal	Continuity
1—4	Yes
2—4	No
3—5	Yes

2. If not as specified, replace the retractor relay.
3. If correct, go to Step 4.
4. Apply 12V to terminal 3 and ground terminal 5.
   Check continuity between terminals of the relay.

Terminal	Continuity
1—4	No
2—4	Yes

5. If not as specified, replace the retractor relay.

TURN AND HAZARD WARNING FLASHER UNIT

Inspection

1. Check continuity between terminals of the flasher unit.

Note

- **Set the ohmmeter to ×1000Ω range.**

Terminal		Continuity	Terminal		Continuity	Terminal		Continuity
+	−		+	−		+	−	
a	c	X	d	e	X	f	g	X
a	d	X	d	f	X	f	h	X
a	e	○	d	g	X	g	a	X
a	f	○	d	h	X	g	c	X
a	g	X	e	a	X	g	d	X
a	h	X	e	c	X	g	e	X
c	a	○	e	d	X	g	f	X
c	d	○	e	f	X	g	h	X
c	e	○	e	g	X	h	a	○
c	f	○	e	h	X	h	c	○
c	g	○	f	a	X	h	d	○
c	h	○	f	c	X	h	e	○
d	a	X	f	d	X	h	f	○
d	c	X	f	e	X	h	g	○

○: Indicates continuity X: No continuity

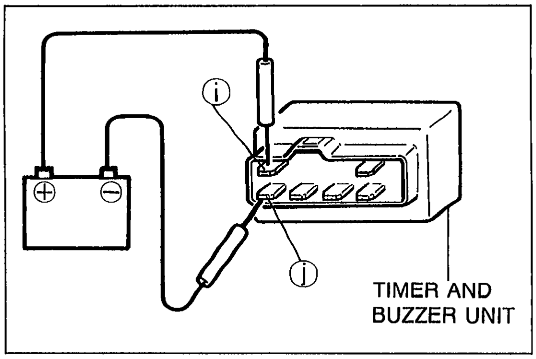
2. If not as specified, replace the flasher unit.

TIMER AND BUZZER UNIT

Inspection

Note

- **While performing the following tests, apply 12V to terminal i and ground terminal j.**



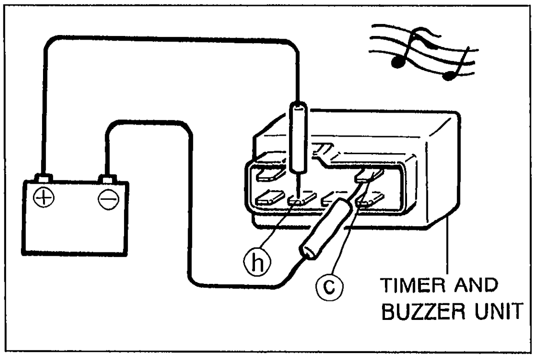
05U0TX-021

Key remainder alarm test

1. Apply 12V to terminal h and ground terminal c, and check if the buzzer sounds.

Terminal		Buzzer sounds
12V	Ground	
h	c	Yes

2. If the buzzer does not sound, replace the timer and buzzer unit.



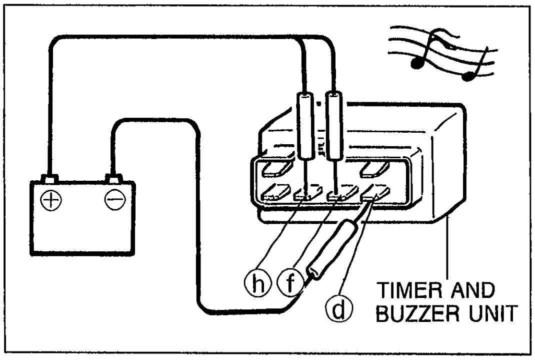
05U0TX-022

Seat belt alarm test

1. Apply 12V to terminals f and h and ground terminal d, and check if the buzzer sounds for **approx. 6 sec.**.

Terminal		Buzzer sounds
12V	Ground	
f and h	d	Approx. 6 sec.

2. If not as specified, replace the timer and buzzer unit.



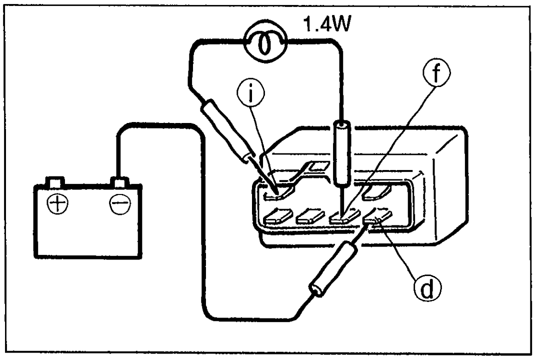
05U0TX-023

Seat belt warning lamp timer

1. Connect a test light (1.4W) between terminals i and f.
2. Ground terminal d, and check that the test light illuminates for **Approx. 6 sec.**.

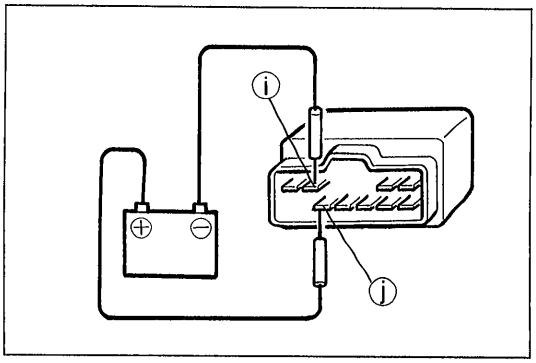
Terminal	Test light illuminates
Test light between i and f	
d grounded	Approx. 6 sec.

3. If not as specified, replace the timer and buzzer unit.



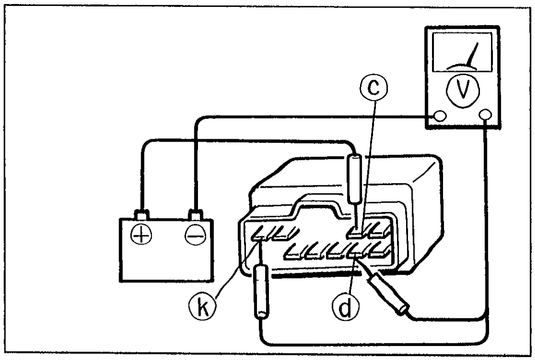
05U0TX-024

DRL UNIT
Inspection
Voltage test



05U0TX-025

Note
- **While performing the following voltage tests, apply 12V to terminal j and ground terminal i.**

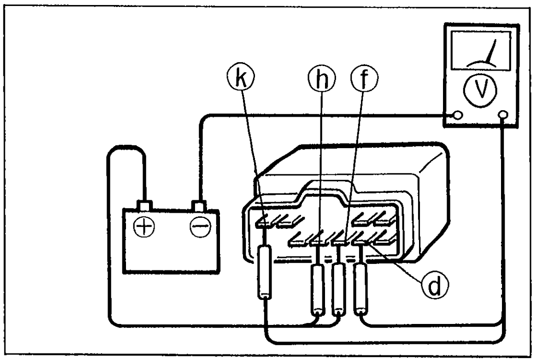


05U0TX-026

1. Apply 12V to terminal c, and measure the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

2. If not as specified, replace the DRL unit.

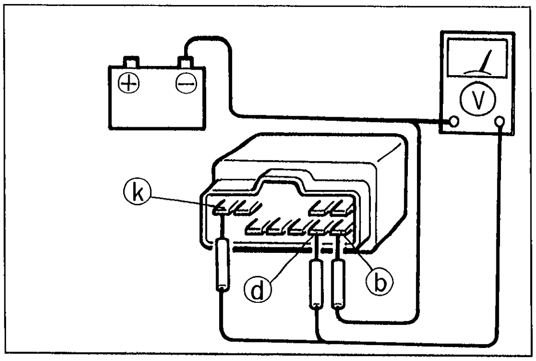


05U0TX-027

3. Remove the 12V from terminal c.
4. Apply 12V to terminals f and h, and measure the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

5. If not as specified, replace the DRL unit.

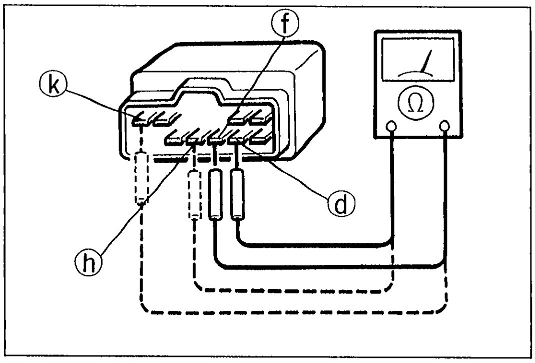


05U0TX-028

6. Remove the 12V from terminals f and h.
7. Ground terminal b, and measure the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

8. If not as specified, replace the DRL unit.



05U0TX-274

Continuity test

1. Check for continuity between terminals of the DRL unit.

Terminal	Continuity
d—f	Yes
h—k	Yes

2. If not as specified, replace the DRL unit.

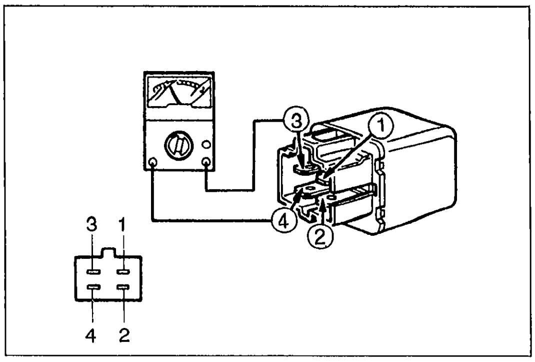
4-TERMINAL NORMALLY OPEN RELAY (NO RELAY)

Inspection

The relays listed below are 4-terminal normally open (NO) relays.

- Horn relay
- Headlight relay
- TNS relay
- Cooling fan relay

05U0TX-029



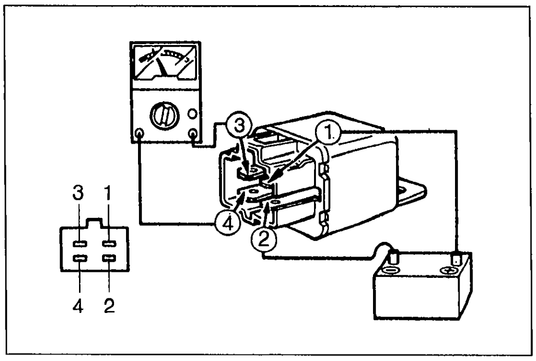
05U0TX-275

Headlight relay and cooling fan relay

1. Check continuity between terminals 3 and 4.

Terminal	Continuity
3—4	No

2. If not as specified, replace the relay.
3. If correct, go to Step 4.

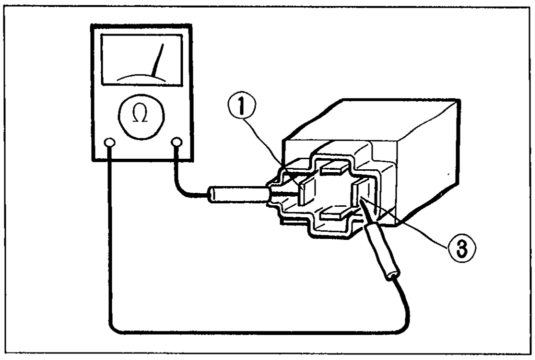


9MU0TX-027

4. Apply 12V to terminal 1 and ground terminal 2. Check for continuity between terminals 3 and 4.

Terminal	Continuity
3—4	Yes

5. If not as specified, replace the relay.



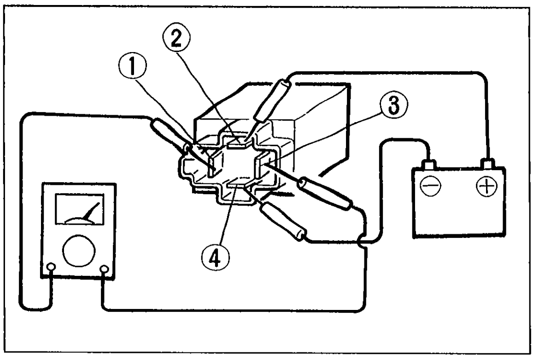
05U0TX-276

Horn relay and TNS relay

1. Check continuity between terminals 1 and 3.

Terminal	Continuity
1—3	No

2. If not as specified, replace the relay.
3. If correct, go to Step 4.



05U0TX-277

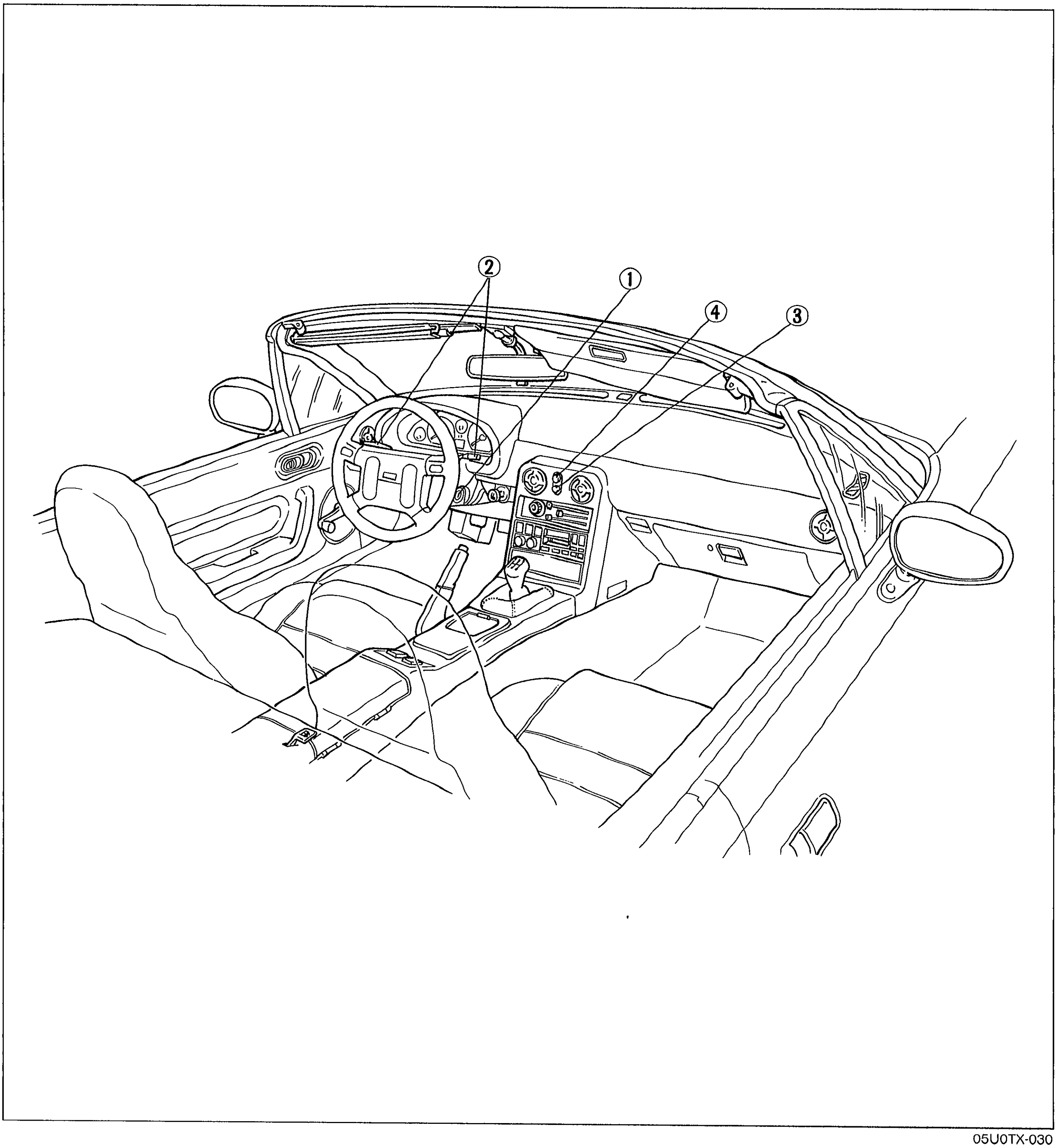
4. Apply 12V to terminal 2 and ground terminal 4. Check for continuity between terminals 1 and 3.

Terminal	Continuity
1—3	Yes

5. If not as specified, replace the relay.

SWITCH

STRUCTURAL VIEW



1. Ignition switch
2. Combination switch
3. Headlight retractor switch
4. Hazard warning switch

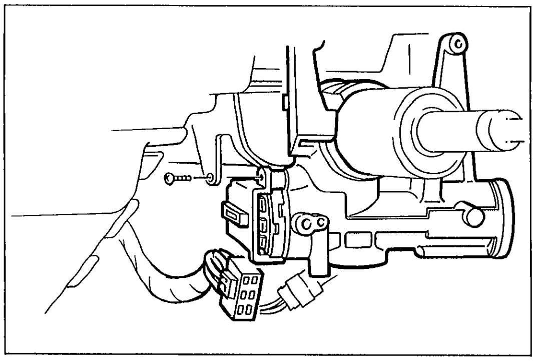
DESCRIPTION

Combination Switch (U.S. spec.)

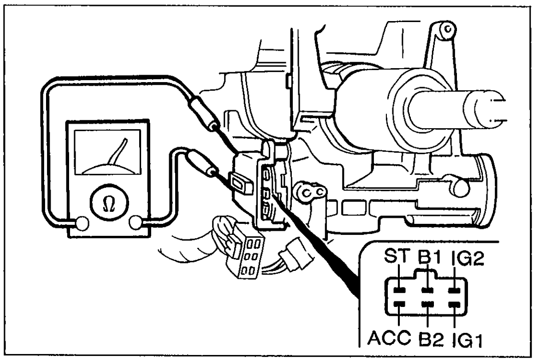
The combination switch equipped for U.S. specification vehicles includes a clock spring type electrical connector for supplying electrical current to the air bag module and horn switches.

When installing the combination switch, make sure the clock spring connector is properly aligned. If it is not, it may be broken or the steering wheel may not turn fully. (Refer to page T–22.)

05U0TX-031



05U0TX-032


ST B1 IG2
ACC B2 IG1
Ω

05U0TX-033

STEERING LOCK

Replacement

1. Disconnect the negative battery cable.
2. Remove the column covers.
3. Remove the screw and the ignition switch.
4. Install in the reverse order of removal.

Inspection

1. Check continuity between terminals of the switch.

Position	Terminal							
	B1	B2	ACC	IG1	IG2	ST	K1	K2
LOCK							○	○
ACC	○		○				○	○
ON	○	○	○	○	○		○	○
START	○	○		○		○	○	○

○——○: Indicates continuity

2. If not as specified, replace the combination switch.

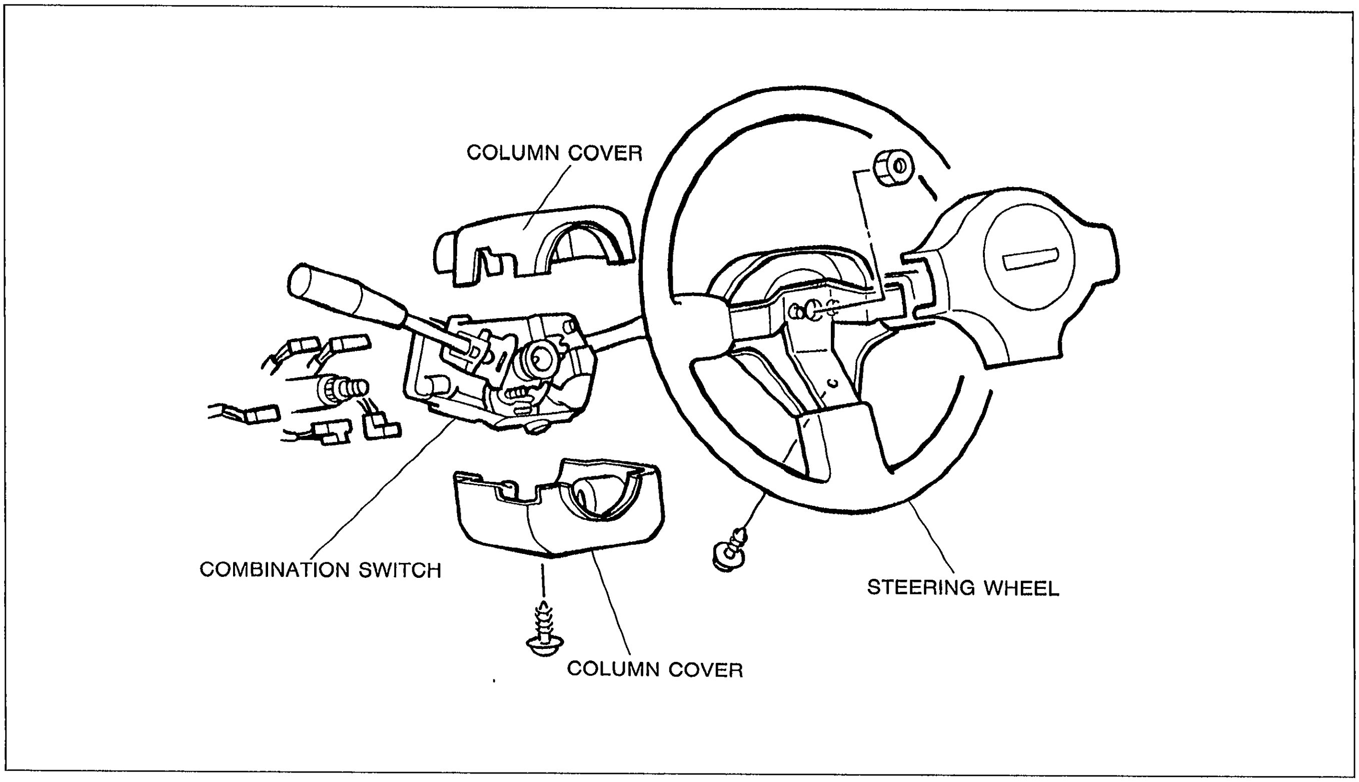
COMBINATION SWITCH

Removal / Installation

Caution (U.S. spec.)
- **Before removing the clock spring connector, disconnect the negative battery cable.**
- **Before installing the steering wheel, reset the clock spring connector. (Refer to page T–22.)**

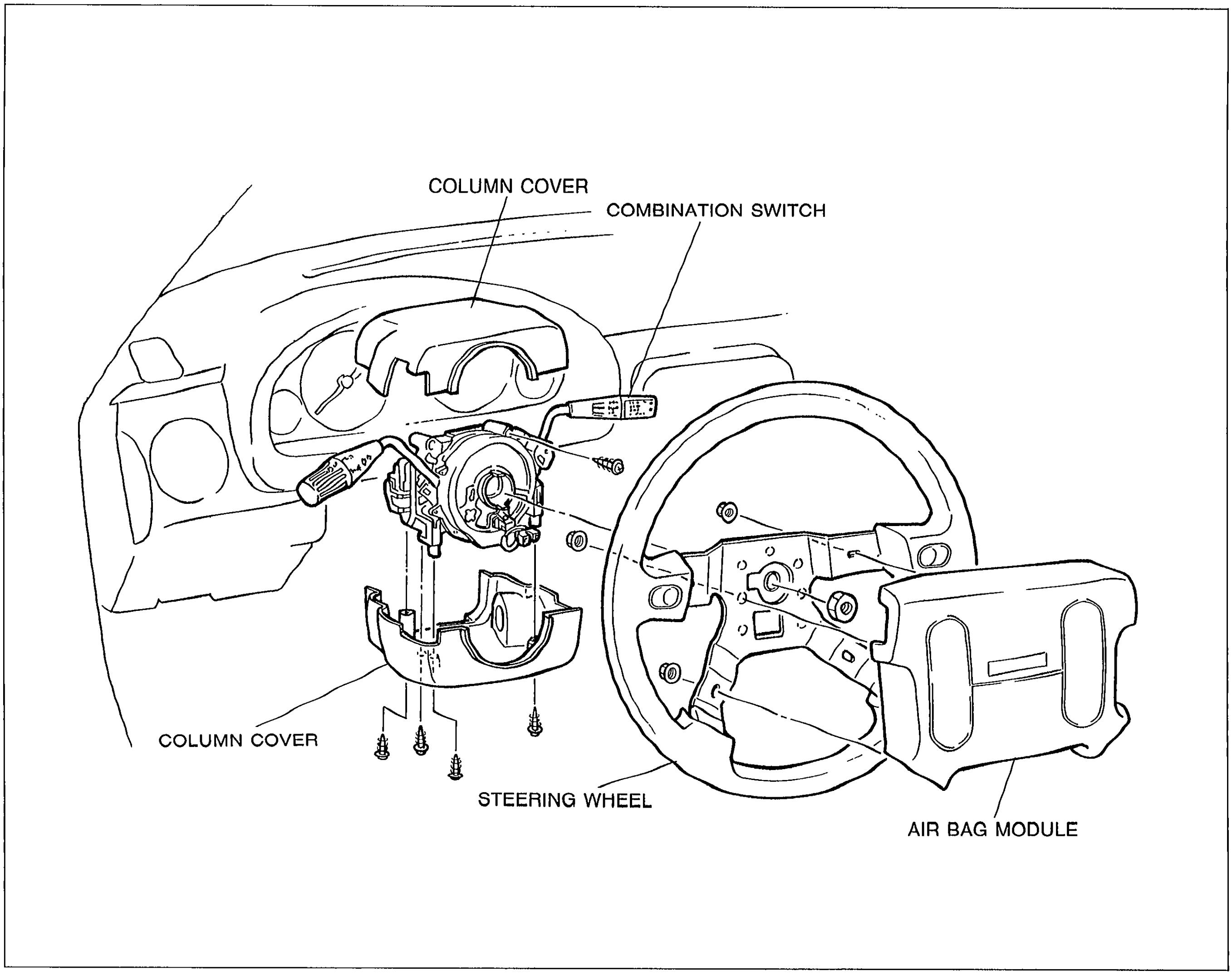
Remove and install as shown in the figure.

Canada spec.

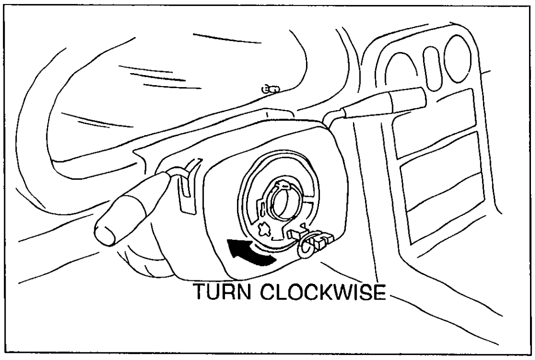

COLUMN COVER
COMBINATION SWITCH
STEERING WHEEL
COLUMN COVER

05U0TX-034

U.S. spec.


COLUMN COVER
COMBINATION SWITCH
COLUMN COVER
STEERING WHEEL
AIR BAG MODULE

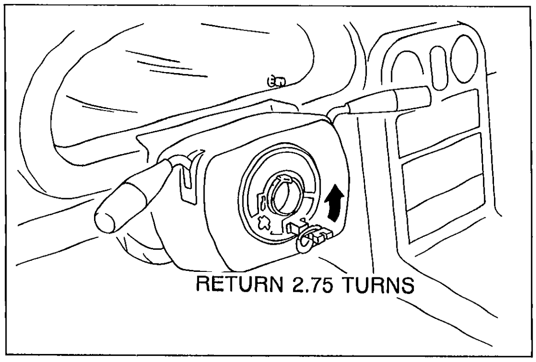
05U0TX-035


TURN CLOCKWISE

05U0TX-036

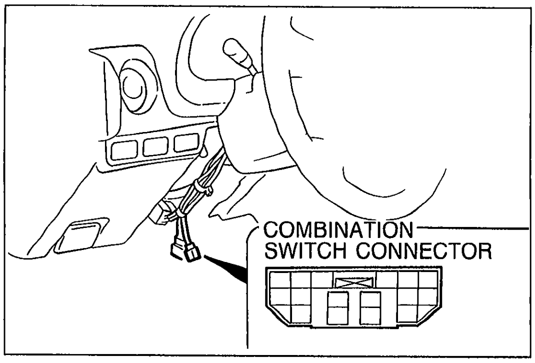
Clock spring connector adjustment

1. Set the front wheels straight ahead.
2. Turn the clock spring connector clockwise until it stops. **Do not force it**.


RETURN 2.75 TURNS

05U0TX-037

3. Return the connector 2.75 turns.
4. Align the marks on the clock spring connector and the outer housing.

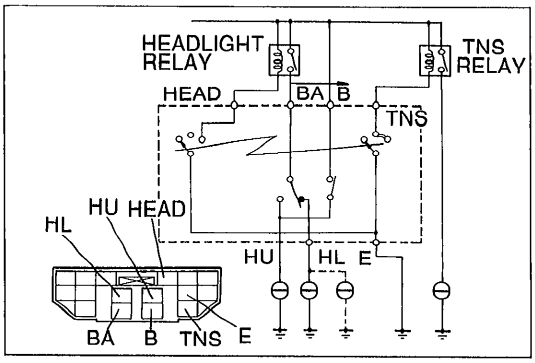

COMBINATION SWITCH CONNECTOR

05U0TX-038

Inspection

U.S. spec.

1. Disconnect the negative battery cable.
2. Remove the knee protector.
3. Disconnect the combination switch connector.
4. Check the continuity or the resistance between the terminals described with an ohmmeter.
5. If the continuity or resistance is not as specified, replace the combination switch as an assembly.

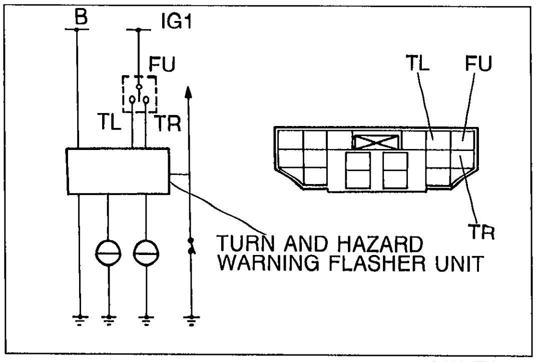

HEADLIGHT RELAY
TNS RELAY
HEAD
BA
B
TNS
HU
HEAD
HL
HU
HL
E
BA
B
TNS
E

05U0TX-039

Lights, dimmer, and passing switch

Position		Terminal						
		E	HL	HU	TNS	HEAD	BA	B
Headlight	Low beam	○	—	—	—	○		
		○	—	—	○			
			○	—	—	—	○	
	High beam	○	—	—	—	○		
		○	—	—	○			
				○	—	—	○	
Passing				○	—	—	—	○
Tail, Parking		○	—	—	○			

○—○: Indicates continuity

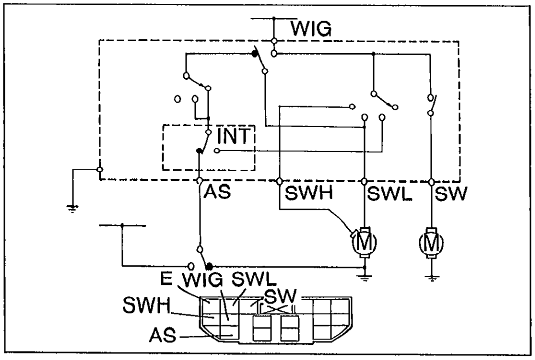

B
IG1
FU
TL
TR
TL
FU
TR
TURN AND HAZARD WARNING FLASHER UNIT

05U0TX-040

Turn signal switch

Switch	Terminal		
	FU	TL	TR
Left	○	○	
Right	○	—	○

○—○: Indicates continuity

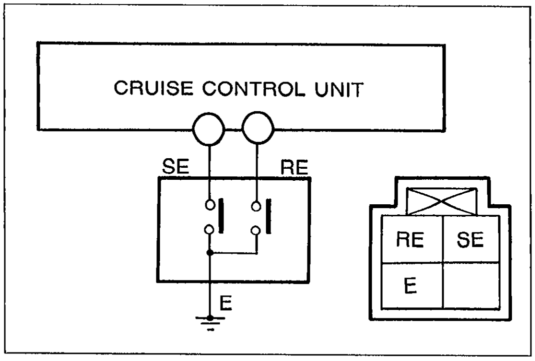

WIG
INT
AS
SWH
SWL
SW
M
M
E
WIG
SWL
SW
SWH
AS

05U0TX-041

Windshield wiper and washer switch

Position		Terminal One touch	AS	WIG	SWL	SWH	INT	SW
Wiper switch	OFF	OFF	○	—	○			
		ON		○	○			
	INT		○	—	○			
				○	—	—	○	
	I (Low)			○	○			
	II (High)			○	—	○		
Washer switch ON				○	—	—	—	○

○—○: Indicates continuity

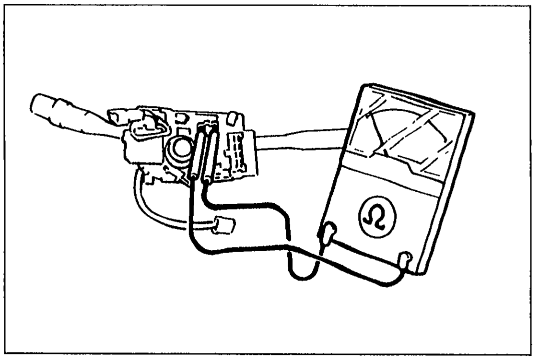

CRUISE CONTROL UNIT
SE
RE
E
RE
SE
E

05U0TX-042

Cruise control switch

Position	Terminal		
	SE	RE	E
SET/COAST	○	—	○
RESUME/ACCEL		○	○

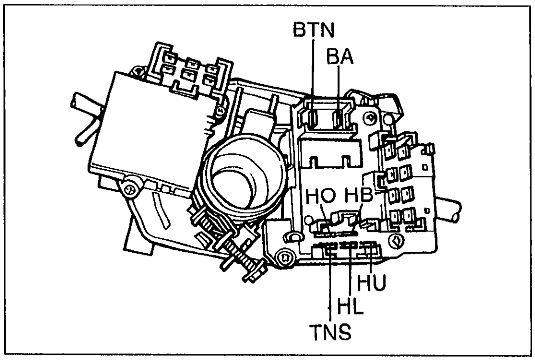
○—○: Indicates continuity



05U0TX-043

Canada spec.

1. Check the continuity or resistance between the terminals described.
2. If the continuity or resistance is not as specified, replace the combination switch.

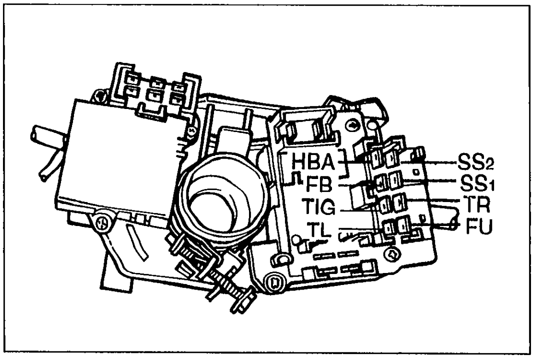


9MU0TX-046

Lights, dimmer, and passing switch

Position \ Terminal		HB	HL	HU	BA	BTN	TNS
Headlight	Low beam	O O	O		 O	O	O
	High beam	O O		O	 O	O	O
Passing				O	O		
Tail, Parking						O	O

O—O: Indicates continuity

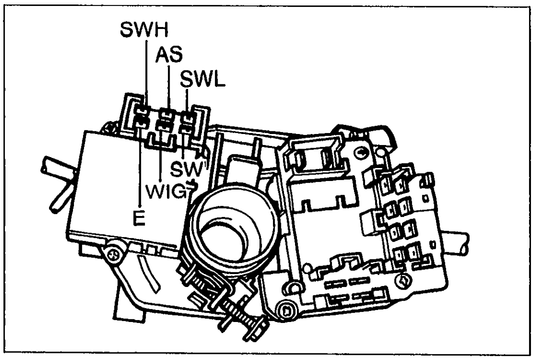


9MU0TX-047

Turn signal switch

Position \ Terminal	FU	TL	TR
Left	O	O	
Right	O		O

O—O: Indicates continuity



05U0TX-044

Windshield wiper and washer switch

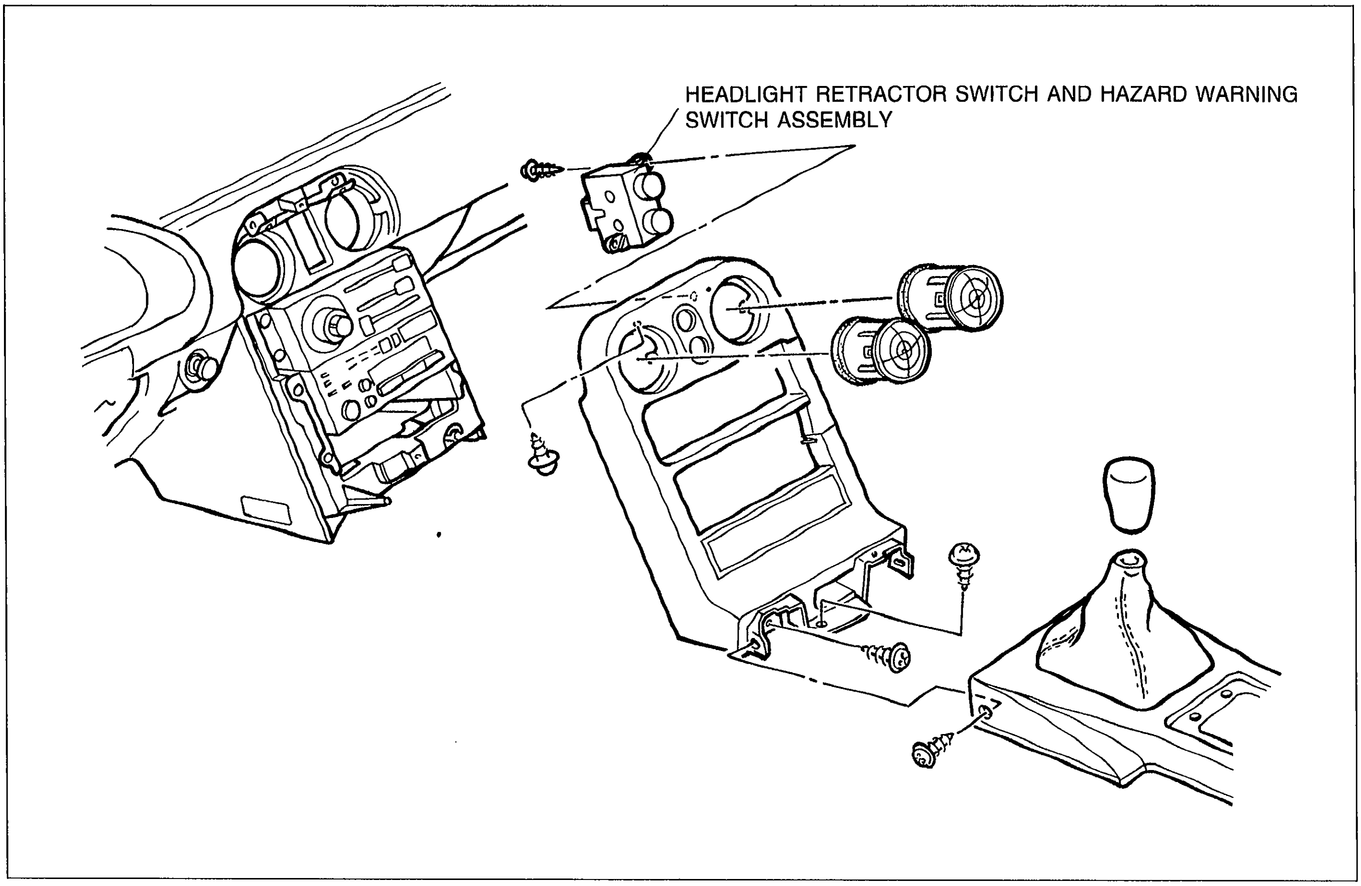
Position \ Terminal		One touch	AS	WIG	SWL	SWH	E	SW
Wiper switch	OFF	OFF	O		O			
		ON			O		O	
	INT				O		O	
	I (Low)				O		O	
	II (High)					O	O	
Washer switch ON							O	O

O—O: Indicates continuity

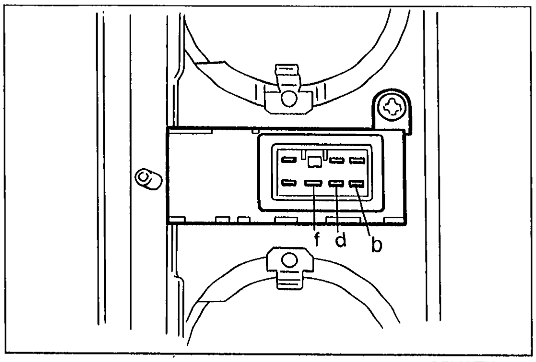
HEADLIGHT RETRACTOR SWITCH AND HAZARD WARNING SWITCH ASSEMBLY

Removal / Installation

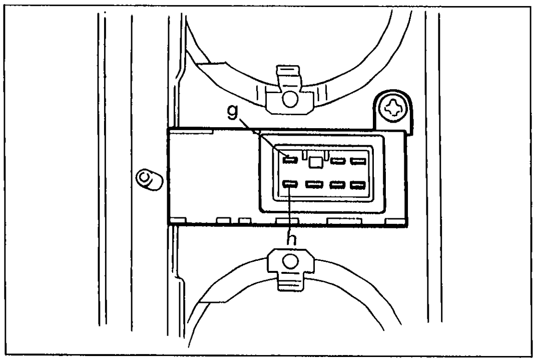
Remove and install as shown in the figure



05U0TX-046



05U0TX-047



05U0TX-048

Inspection

Headlight retractor switch

1. Remove the retractor switch.
2. Check for continuity between terminals of the switch.

Switch	Terminal		
	b	d	f
Off	○—	——	—○
On		○—	—○

○—○: Indicates continuity

3. If not as specified, replace the retractor and hazard switch as an assembly.

Hazard warning switch

1. Remove the hazard switch.
2. Check continuity between terminals of the switch.

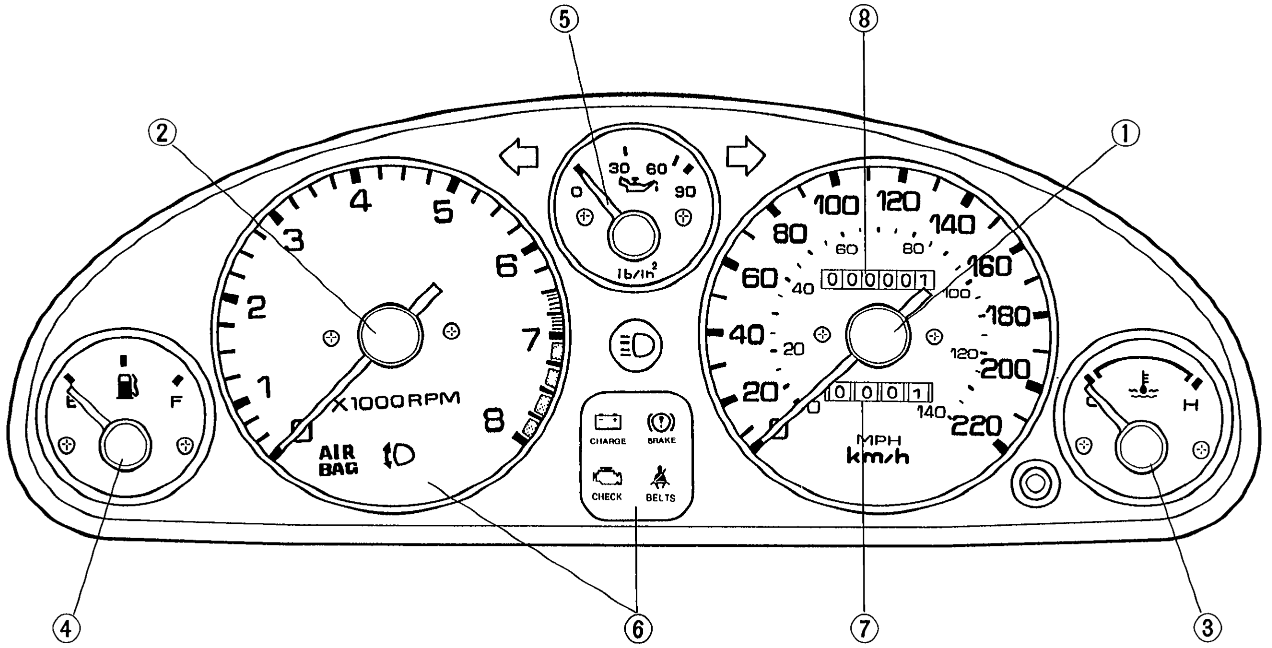
Switch	Terminal	
	g	h
On	○—	—○
Off		

○—○: Indicates continuity

3. If not as specified, replace the hazard and retractor switch as an assembly.

INSTRUMENT CLUSTER (METER)

STRUCTURAL VIEW



⑤
⑧
②
①
30 60
0 90
lb/in²
4 5 3 6 2 7 1 8 0
X1000RPM
AIR BAG
E F
C H
100 120 140 80 60 40 20 0 160 180 200 220
60 80 40 20 100 120 140
000001
00011
CHARGE
BRAKE
CHECK
BELTS
MPH
km/h
④
⑥
⑦
③

05U0TX-049

1. Speedometer
2. Tachometer
3. Water temperature gauge
4. Fuel gauge
5. Oil pressure gauge
6. Warning and indicator lamps
7. Trip meter
8. Odometer

DESCRIPTION

Speedometer

Two scales are shown on the speedometer face. The main scale for U.S. specification vehicles is MPH (0—130 MPH); the main scale for Canada specification vehicles is KM/H (0—210 KM/H). The odometer indication is the same as the main scale.

Tachometer

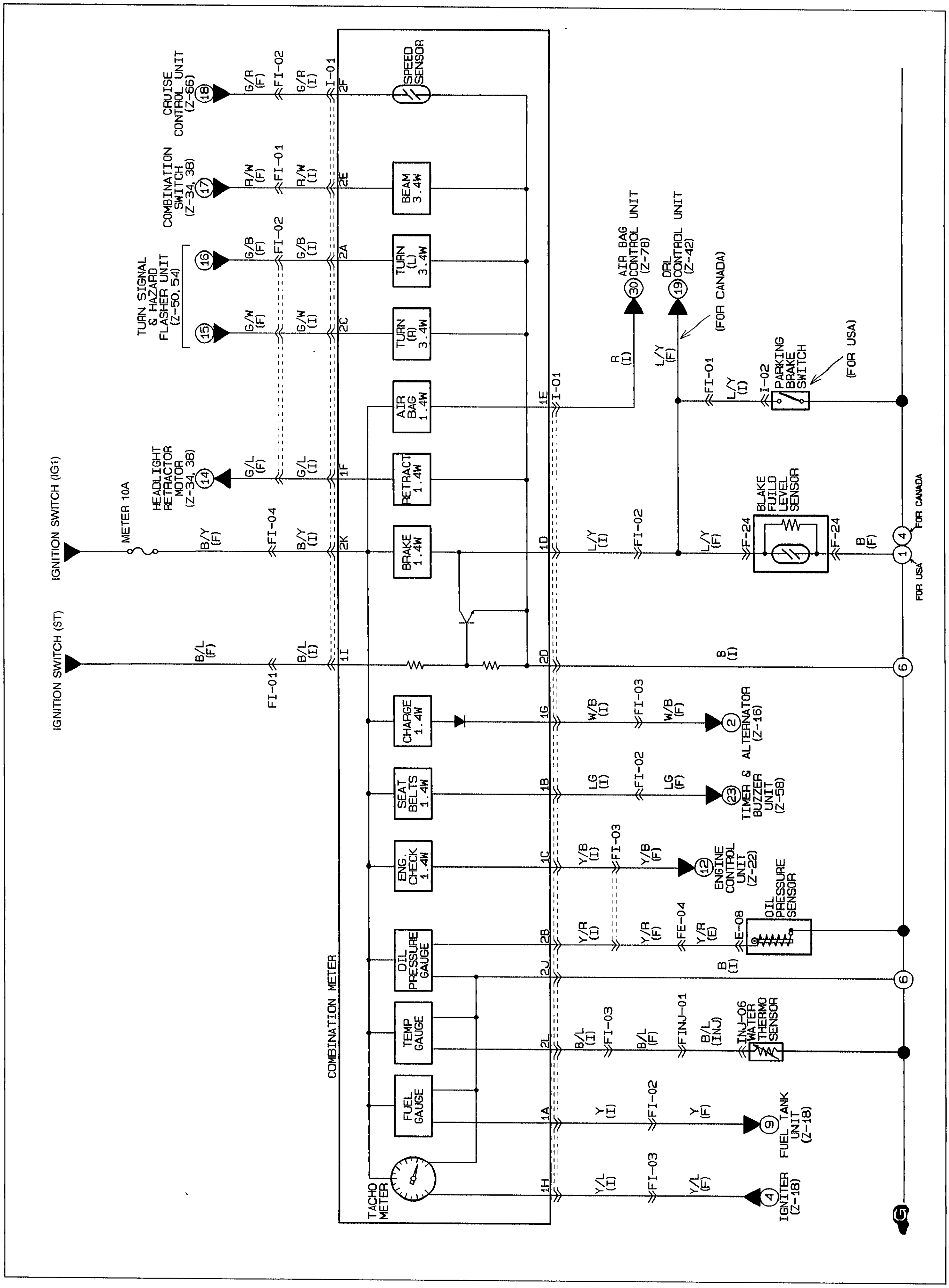
The tachometer has a RED STRIPED ZONE (6,500—7,000 rpm) that indicates momentary allowable engine speed. The engine should not be operated in the RED ZONE (7,000—8,000 rpm).

Fuel Gauge

The fuel gauge continues to indicate the amount of fuel remaining in the fuel tank after the ignition switch has been turned OFF.

05U0TX-050

CIRCUIT DIAGRAM

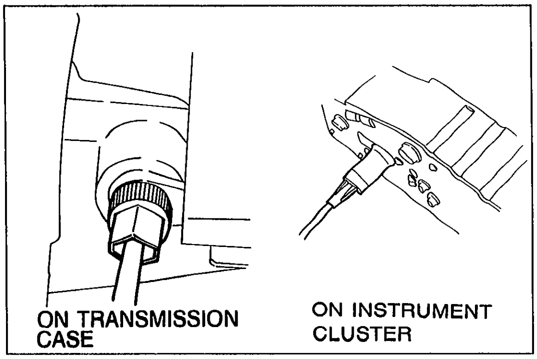

CRUISE CONTROL UNIT (Z-66) ⑱
G/R (F) FI-02 G/R (I) I-01 2F
SPEED SENSOR
COMBINATION SWITCH (Z-34, 38) ⑰
R/W (F) FI-01 R/W (I) 2E
BEAM 3.4W
TURN SIGNAL & HAZARD FLASHER UNIT (Z-50, 54) ⑯ ⑮
G/B (F) FI-02 G/B (I) 2A
TURN (L) 3.4W
G/W (F) G/W (I) 2C
TURN (R) 3.4W
AIR BAG 1.4W
1E I-01 R (I)
AIR BAG CONTROL UNIT (Z-78) ㉚
DRL CONTROL UNIT (Z-42) ⑲
(FOR CANADA)
L/Y (F) FI-01 L/Y (I) I-02
PARKING BRAKE SWITCH (FOR USA)
HEADLIGHT RETRACTOR MOTOR (Z-34, 38) ⑭
G/L (F) G/L (I) 1F
RETRACT 1.4W
IGNITION SWITCH (IG1)
METER 10A
B/Y (F) FI-04 B/Y (I) 2K
BRAKE 1.4W
1D L/Y (I) FI-02 L/Y (F) F-24
BLAKE FUILD LEVEL SENSOR
F-24 B (F) ① ④ FOR USA FOR CANADA
IGNITION SWITCH (ST)
B/L (F) FI-01 B/L (I) 1I
2D B (I) ⑥
CHARGE 1.4W
1G W/B (I) FI-03 W/B (F) ②
ALTERNATOR (Z-16)
SEAT BELTS 1.4W
1B LG (I) FI-02 LG (F) ㉓
TIMER & BUZZER UNIT (Z-58)
ENG. CHECK 1.4W
1C Y/B (I) FI-03 Y/B (F) ⑫
ENGINE CONTROL UNIT (Z-22)
OIL PRESSURE GAUGE
2B Y/R (I) Y/R (F) FE-04 Y/R (E) E-08
OIL PRESSURE SENSOR
2J B (I) ⑥
COMBINATION METER
TEMP GAUGE
2L B/L (I) FI-03 B/L (F) FINJ-01 B/L (INJ) INJ-06
WATER THERMO SENSOR
FUEL GAUGE
1A Y (I) FI-02 Y (F) ⑨
FUEL TANK UNIT (Z-18)
TACHO METER
1H Y/L (I) FI-03 Y/L (F) ④
IGNITER (Z-18)
G

05U0TX-051

TROUBLESHOOTING

Symptom: Speedometer does not operate or indication is incorrect.

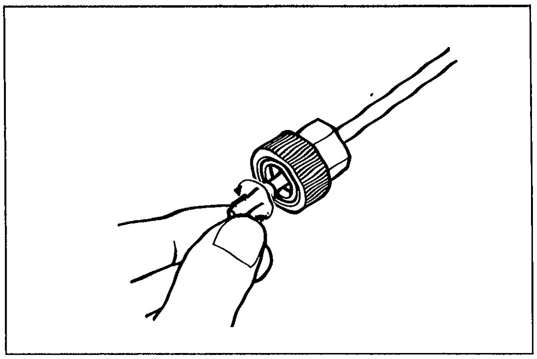
05U0TX-278



9MU0TX-067

Step 1

1. Verify that the speedometer cable is connected properly.
2. If the connections are OK, go to Step 2.



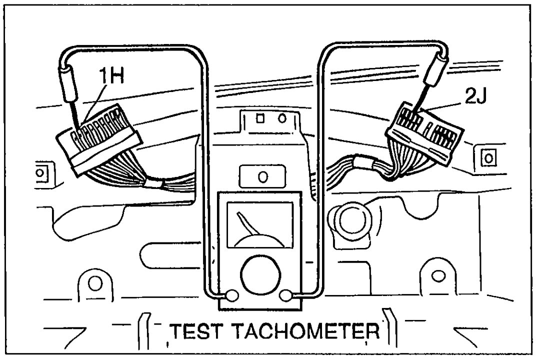
05U0TX-279

Step 2 — Check speedometer cable

1. Disconnect the speedometer cable from the instrument cluster and transmission case.
2. Verify that the cable and gear spin easily when turned by hand.
3. If the cable or gear is stiff, replace as necessary.
4. If the speedometer cable and gear are OK, replace the speedometer.

Symptom: Tachometer does not operate.

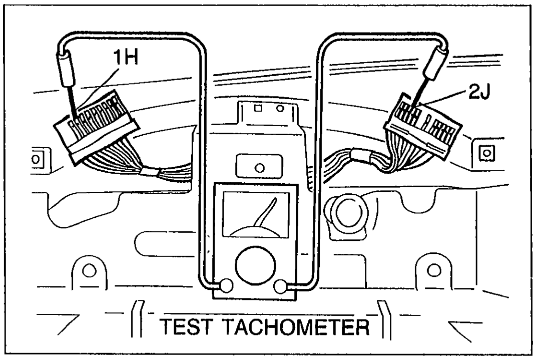
9MU0TX-069



05U0TX-280

Step 1 — Preparation

1. Remove the instrument cluster. (Refer to page T–33.)
2. Connect a test tachometer between terminals 1H and 2J of the harness side connector.



9MU0TX-071

Step 2

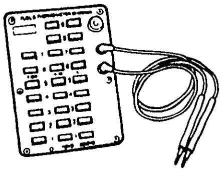
1. Start the engine.
2. Check that the test tachometer indicates engine speed.

Indicates rpm	Action
Yes	Replace tachometer
No	Repair wiring harness (Instrument cluster — Igniter)

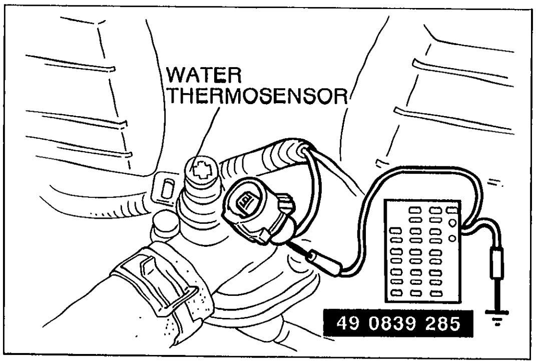
Symptom: Water temperature gauge does not operate.

05U0TX-466

Preparation
SST

49 0839 285 Checker, fuel and thermometer 	For inspection of gauges

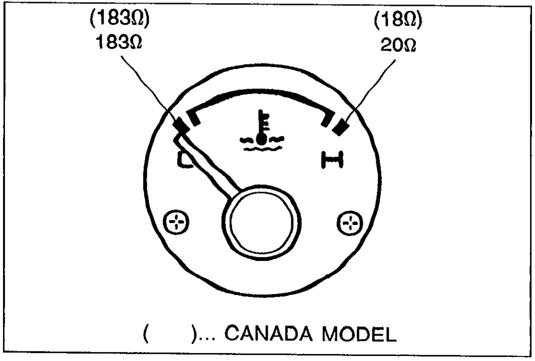
05U0TX-052



05U0TX-456

Step 1

1. Disconnect the connector from the water thermosensor.
2. Connect the red lead of the **SST** to the connector, and the black lead to a body ground.



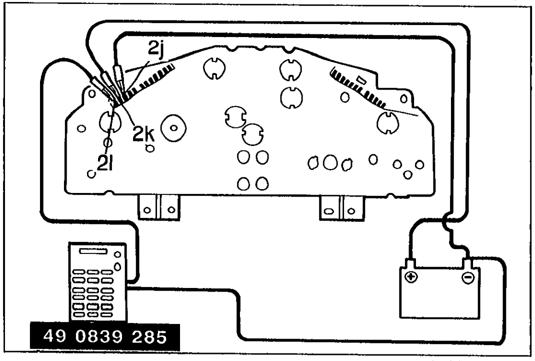
05U0TX-457

3. Set the **SST** to the resistance values shown in the figure.
4. Turn the ignition switch ON, and check that the needle indicates the correct values.

Gauge displays correct	Action
Yes	Replace water thermosensor
No	Go to Step 2

Caution

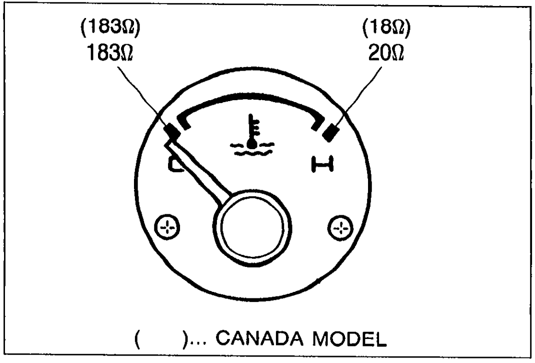
- **Continue the above checks for at the least two minutes each to correctly judge the condition.**
- **The allowable indication error is twice the width of the needle.**



05U0TX-281

Step 2

1. Remove the instrument cluster. (Refer to page T–33.)
2. Apply 12V to terminal 2k and ground terminal 2j.
3. Connect the red lead of the **SST** to terminal 2l and the black lead to a ground.



05U0TX-282

4. Set the **SST** to the resistance values shown in the figure.
5. Verify that the needle indicates the correct values.

Indicates correct	Action
Yes	Repair wiring harness (Instrument cluster — Water thermosensor)
No	Replace water temperature gauge

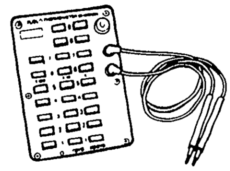
Caution

- **Continue the above checks for at least two minutes each to correctly judge the condition.**
- **The allowable indication error is twice the width of the needle.**

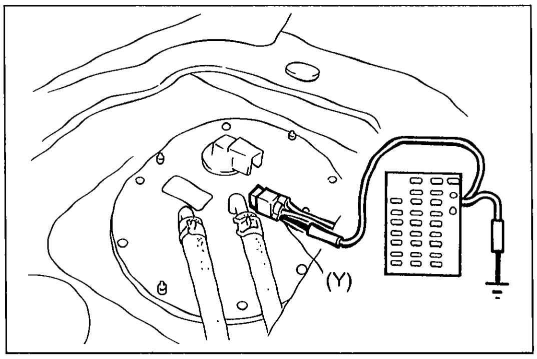
Symptom: Fuel gauge does not operate.

05U0TX-467

Preparation
SST

49 0839 285 Checker, fuel and thermometer		For inspection of gauges

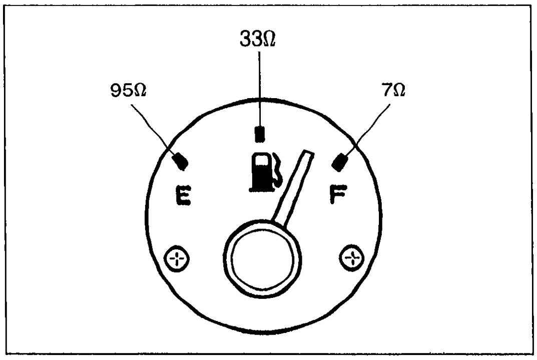
05U0TX-052



05U0TX-283

Step 1

1. Disconnect the connector from the fuel tank sender unit.
2. Connect the red lead of the **SST** to terminal-wire (Y) and the black lead to a body ground.

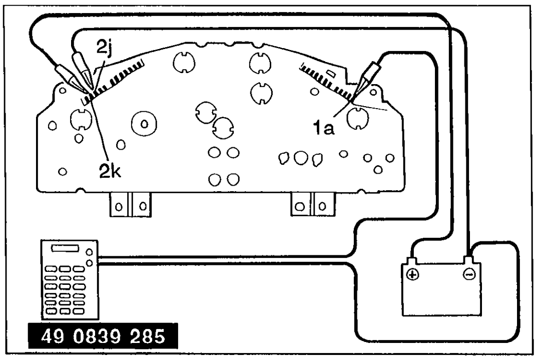


9MU0TX-079

3. Set the **SST** to the resistance values shown in the figure.
4. Turn the ignition switch ON, and verify that the needle indicates the correct values.

Indicates correct	Action
Yes	Replace fuel gauge sender unit (in fuel tank)
No	Go to Step 2

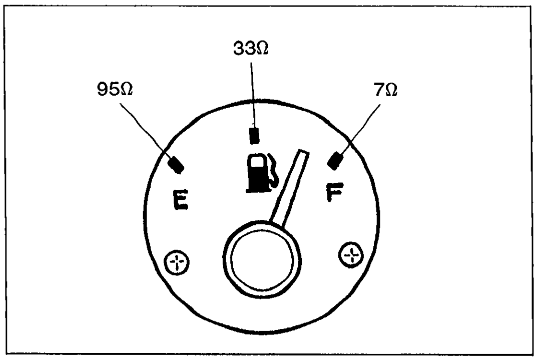
Caution
- **Continue the above checks for at least two minutes each to correctly judge the condition.**
- **The allowable indication error is twice the width of the needle.**



05U0TX-284

Step 2

1. Remove the instrument cluster. (Refer to page T–33.)
2. Apply 12V to terminal 2k and ground terminal 2j.
3. Connect the red lead of the **SST** to terminal 1a and the black lead to a ground.



05U0TX-285

4. Set the **SST** to the resistance values shown in the figure.
5. Verify that the needle indicates the correct values.

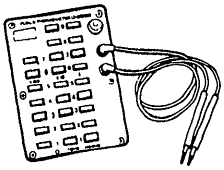
Indicates correct	Action
Yes	Repair wiring harness (Instrument cluster — fuel gauge sender unit)
No	Replace fuel gauge

Caution
- **Continue the above checks for at least two minutes each to correctly judge the condition.**
- **The allowable indication error is twice the width of the needle.**

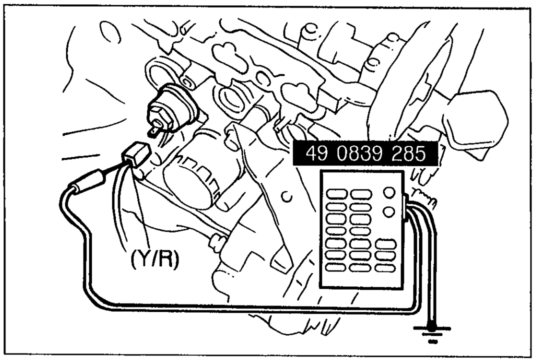
Symptom: Oil pressure gauge does not operate.

05U0TX-468

Preparation
SST

49 0839 285 Checker, fuel and thermometer 	For inspection of gauges

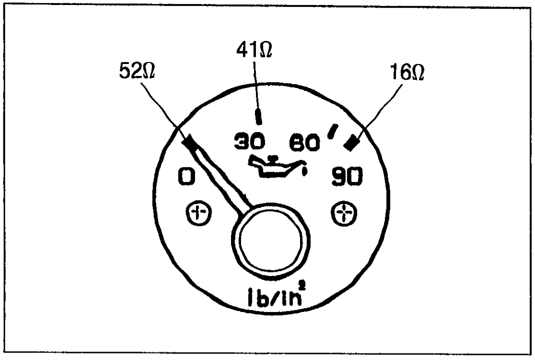
05U0TX-052



05U0TX-055

Step 1

1. Disconnect the connector from the oil pressure sensor.
2. Connect the red lead of the **SST** to terminal-wire (Y/R) and the black lead to a body ground.



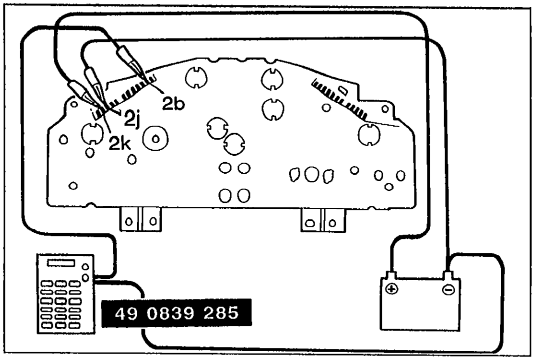
05U0TX-056

3. Set the **SST** to the resistance values shown in the figure.
4. Turn the ignition switch ON, and verify that the needle indicates the correct values.

Indicates correct	Action
Yes	Replace oil pressure sensor
No	Go to Step 2

Caution

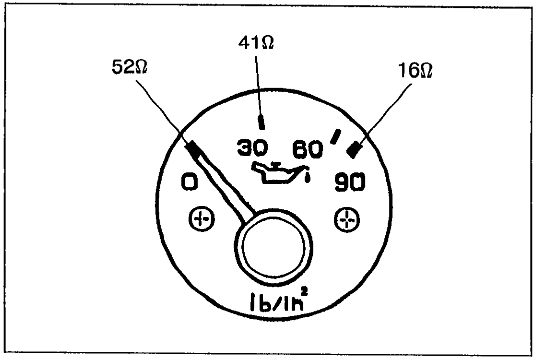
- **Continue the above checks for at least two minutes each to correctly judge the condition.**
- **The allowable indication error is twice the width of the needle.**



05U0TX-286

Step 2

1. Remove the instrument cluster. (Refer to page T–33.)
2. Apply 12V to terminal 2k and ground terminal 2j.
3. Connect the red lead of the **SST** to terminal 2b and the black lead to a ground.



05U0TX-057

4. Set the **SST** to the resistance values shown in the figure.
5. Verify that the needle indicates the correct values.

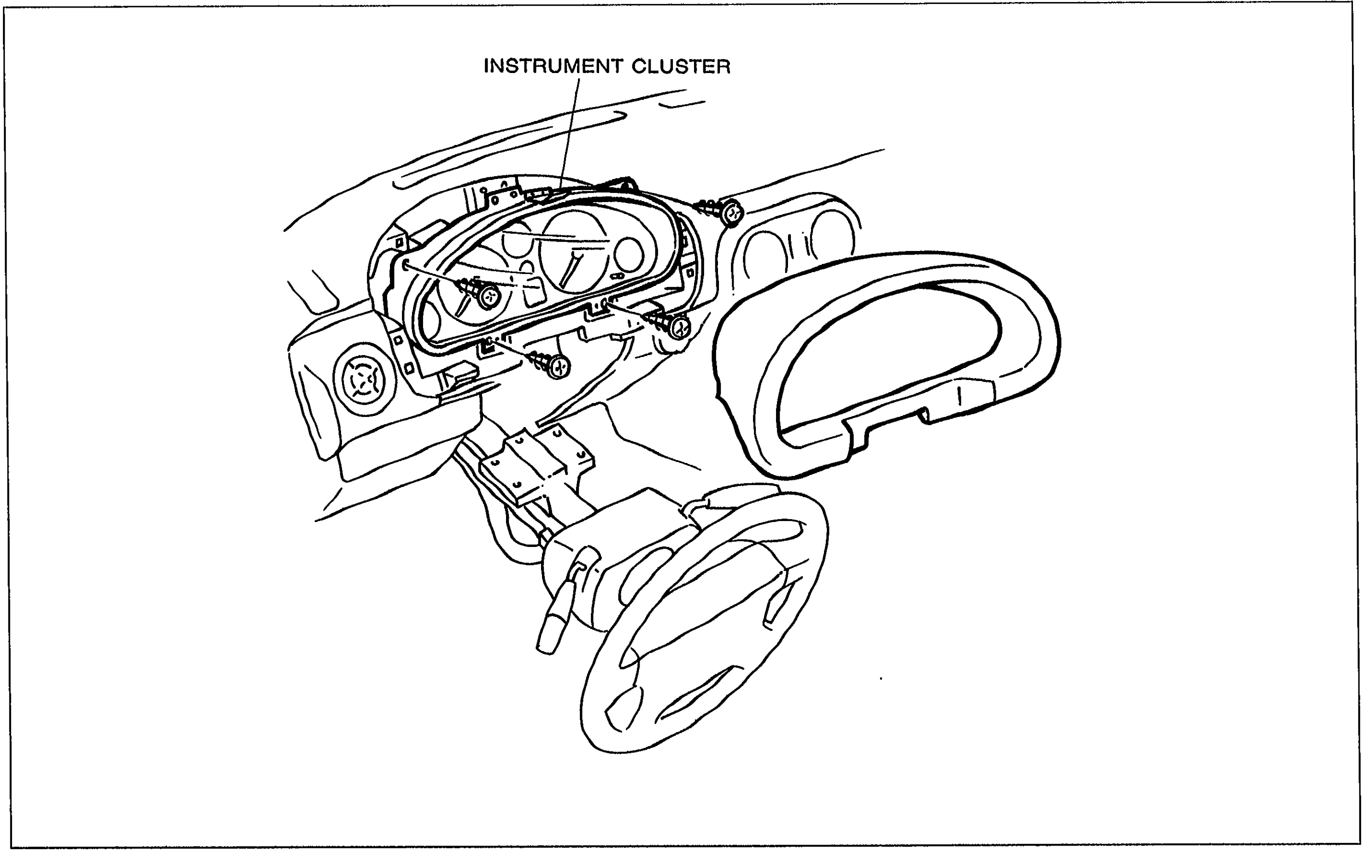
Indicates correct	Action
Yes	Repair wiring harness (Instrument cluster — oil pressure sensor)
No	Replace oil pressure gauge

Caution

- **Continue the above checks for at least two minutes each to correctly judge the condition.**
- **The allowable indication error is twice the width of the needle.**

REMOVAL / INSTALLATION

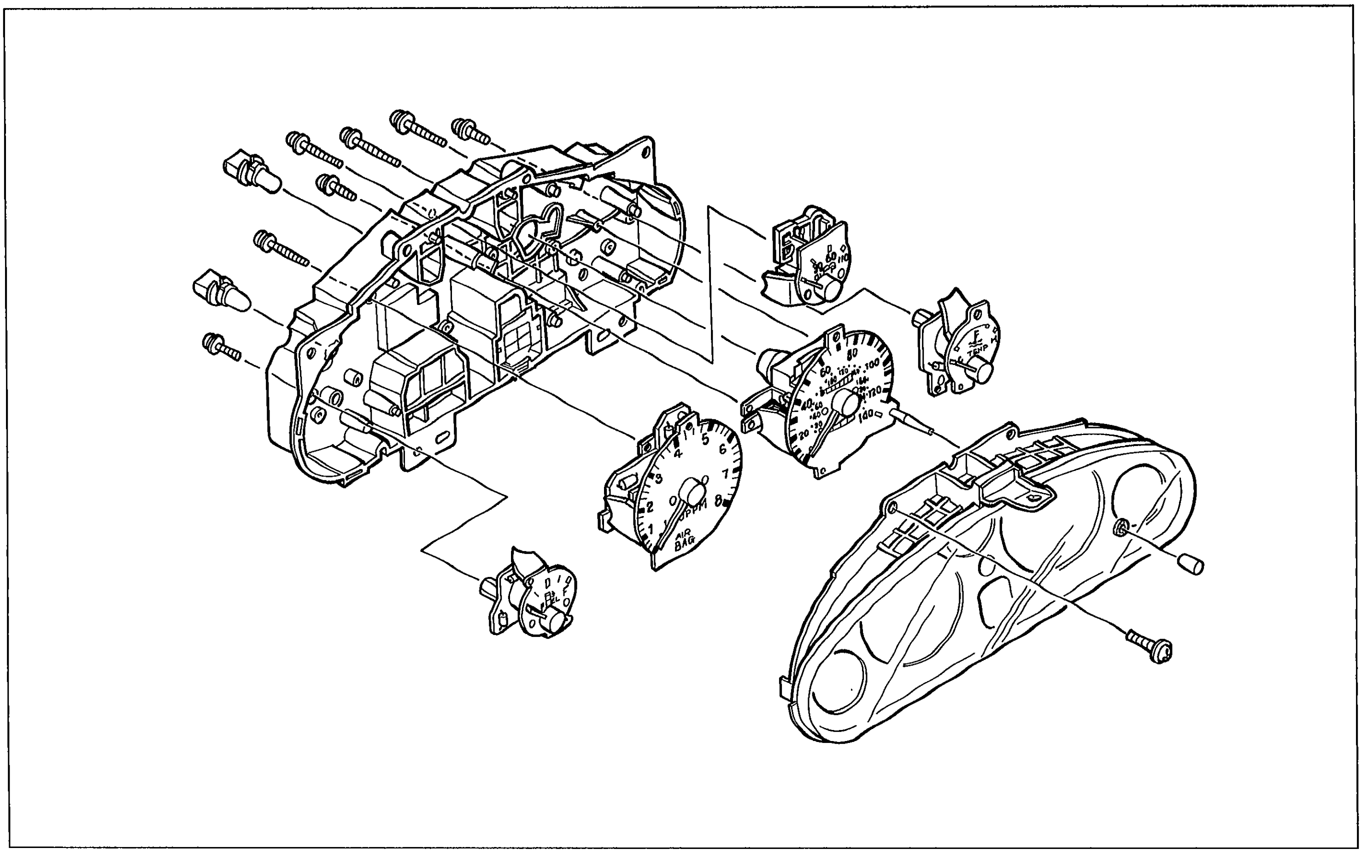
Remove and install as shown in the figure.


INSTRUMENT CLUSTER

05U0TX-058

DISASSEMBLY / ASSEMBLY

Disassemble and assemble as shown in the figure.


RPM
AIR BAG
TEMP

05U0TX-059

Standard indication (km/h)	Allowable range (km/h)
40	40— 43
80	80— 84
120	120—126

Standard indication (mph)	Allowable range (mph)
30	30—32
50	50—53
80	80—84

05U0TX-060

Standard Indication (rpm)	Allowable range (rpm)
2,000	1,850—2,150
3,000	2,760—3,280
4,000	3,700—4,300
5,000	4,640—5,360

05U0TX-061

SPEEDOMETER
Inspection

1. Using a speedometer tester, check the speedometer for allowable indication error, and check the operation of the odometer. Replace if necessary.
2. Check the speedometer for fluctuation and/or abnormal noise.

Caution

- **If significant fluctuation occurs or the speedometer does not move at all, remove the speedometer cable. If it is normal, replace the speedometer assembly.**
- **Tire wear and improper inflation will increase speedometer error.**

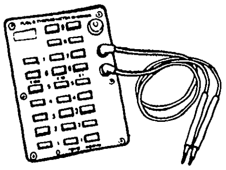
TACHOMETER
Inspection

1. Connect a test tachometer to the engine, and start the engine.
2. Check the tachometer for allowable indication error. Replace if necessary.

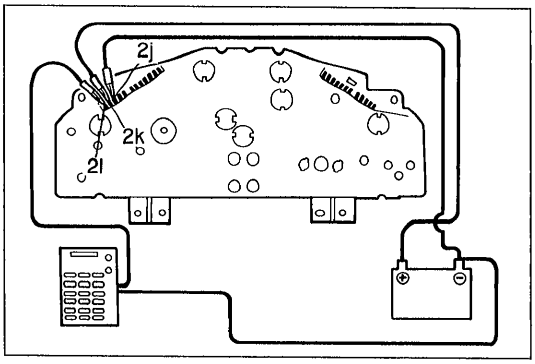
Caution

- **When removing or installing the tachometer, do not drop it or subject it to sharp shocks.**

WATER TEMPERATURE GAUGE
Inspection
Preparation
SST

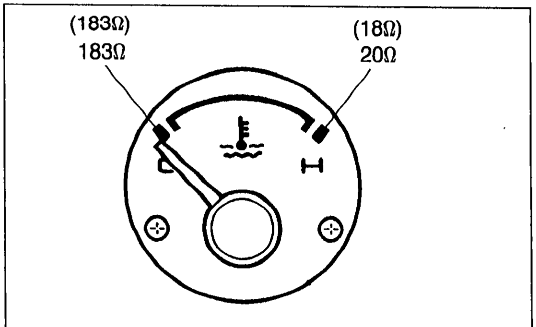
49 0839 285 Checker, fuel and thermometer		For inspection of gauges

05U0TX-062



05U0TX-063

1. Remove the instrument cluster. (Refer to page T–33.)
2. Apply 12V to terminal 2k and ground terminal 2j.
3. Connect the red lead of the **SST** to terminal 2l and the black lead to a ground.



( )... CANADA MODEL

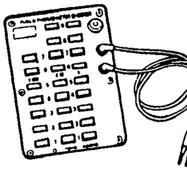
9MU0TX-089

4. Set the **SST** to the resistance values shown in the figure.
5. Turn the ignition switch ON, and verify that the needle indicates the correct values.

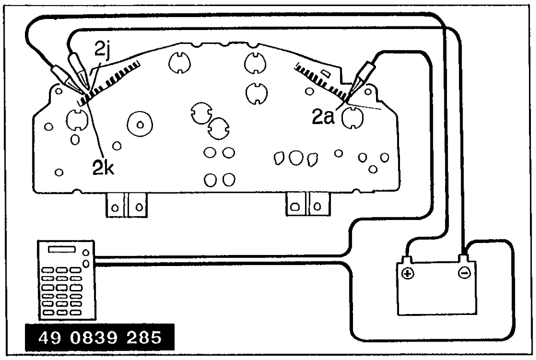
Caution

- **Continue the above checks for at least two minutes each to correctly judge the condition.**
- **The allowable indication error is twice the width of the needle.**

FUEL GAUGE
Inspection
Preparation
SST

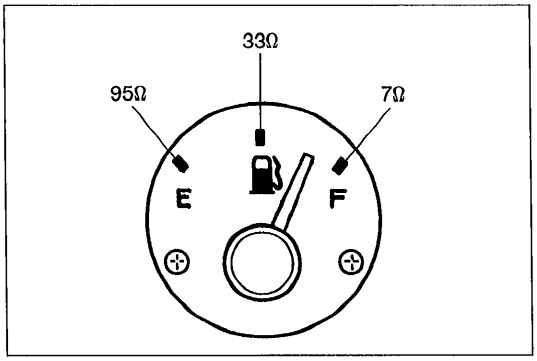
49 0839 285 Checker, fuel and thermometer 	For inspection of gauges

05U0TX-064



05U0TX-065

1. Remove the instrument cluster. (Refer to page T–33.)
2. Apply 12V to terminal 2k and ground terminal 2j.
3. Connect the red lead of the **SST** to terminal 1a and the black lead to a ground.

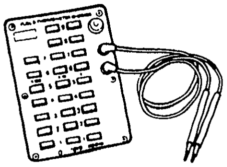


9MU0TX-087

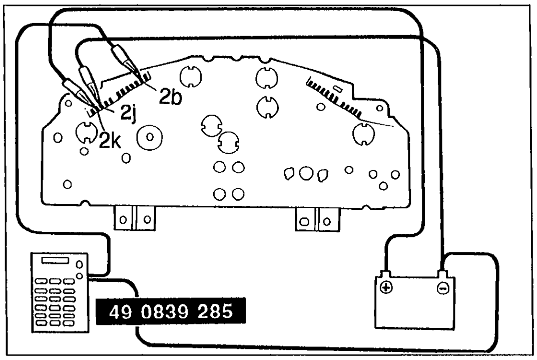
4. Set the **SST** to the resistance values shown in the figure.
5. Verify that the needle indicates the correct values.

Caution
- **Continue the above checks for at least two minutes each to correctly judge the condition.**
- **The allowable indication error is twice the width of the needle.**

OIL PRESSURE GAUGE
Inspection
Preparation
SST

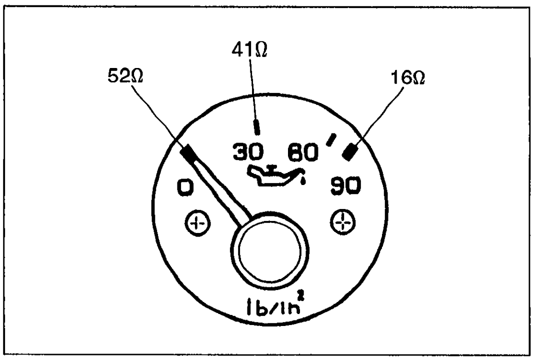
49 0839 285 Checker, fuel and thermometer 	For inspection of gauges

05U0TX-066



05U0TX-065

1. Remove the instrument cluster. (Refer to page T–33.)
2. Apply 12V to terminal 2k and ground terminal 2j.
3. Connect the red lead of the **SST** to terminal 2b and the black lead to a ground.

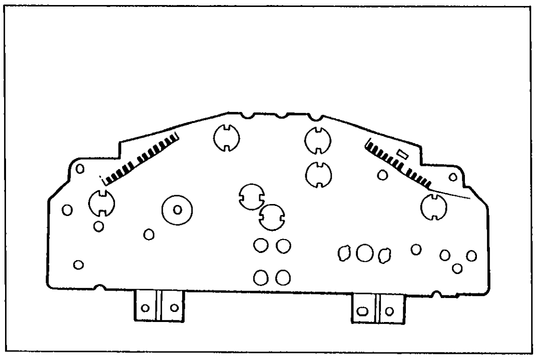


9MU0TX-087

4. Set the **SST** to the resistance values shown in the figure.
5. Verify that the needle indicates the correct values.

Caution

- **Continue the above checks for at least two minutes each to correctly judge the condition.**
- **The allowable indication error is twice the width of the needle.**

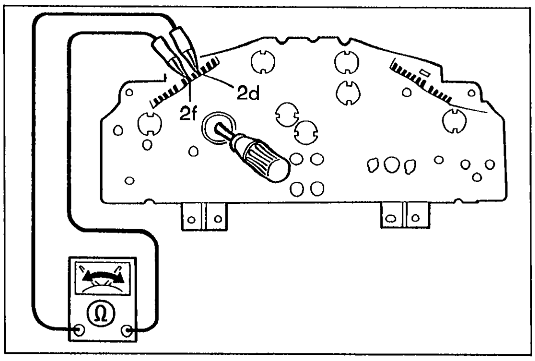


05U0TX-067

PRINTED CIRCUIT

Inspection

1. Remove the instrument cluster. (Refer to page T–33.)
2. Check the printed circuit for damage or oxidization.
3. If necessary, replace the printed circuit.



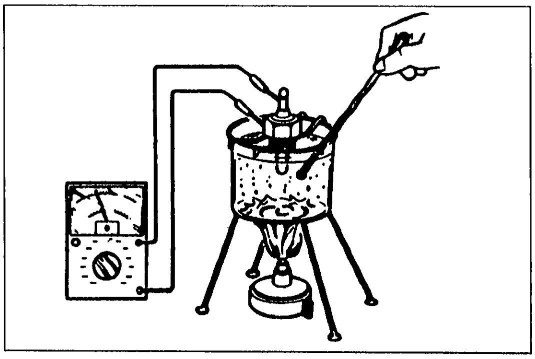
05U0TX-287

SPEED SENSOR

Inspection

1. Remove the instrument cluster.
2. Check continuity between terminals 2d and 2f while rotating the speedometer cable shaft.
3. If the correct number of pulsations fail to occur during each shaft rotation, replace the speed sensor. (Refer to page T–33.)

Pulsation: 4/shaft rotation



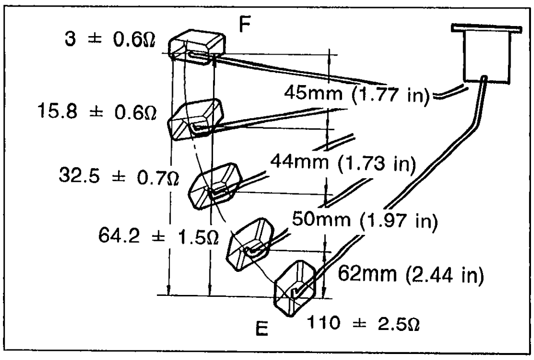
05U0TX-069

WATER THERMOSENSOR

Inspection

1. Remove the sensor.
2. Place the sensor and a thermometer in water.
3. Heat the water gradually, and measure the resistance of the sensor with an ohmmeter.
4. If the resistance is not as specified, replace the sensor.

Resistance: 190—260Ω at 50°C (122°F)

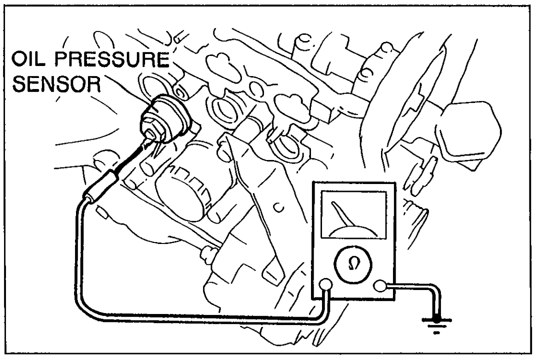


05U0TX-070

FUEL GAUGE SENDER UNIT (IN FUEL TANK)

Inspection

1. Remove the fuel tank gauge sender unit. (Refer to Section F.)
2. Disconnect the fuel gauge sender unit connector.
3. Check resistance between terminals a and b while slowly moving the unit arm from point F to point E.
4. If not correct, replace the fuel gauge sender unit.



05U0TX-071

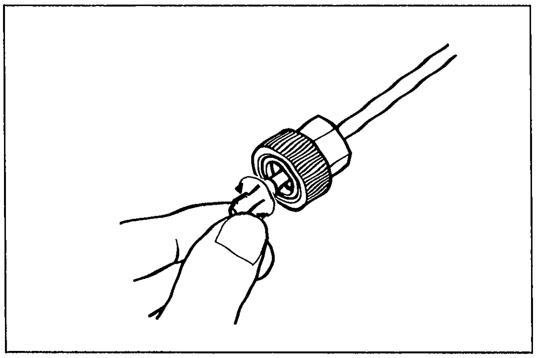
OIL PRESSURE SENSOR

Inspection

1. Disconnect the oil pressure sensor connector.
2. Measure resistance between the oil pressure sensor and a body ground as shown.

Condition	Resistance
Engine stopped	110—130Ω
Engine running	13— 55Ω

3. If not as specified, replace the oil pressure sensor.



05U0TX-072

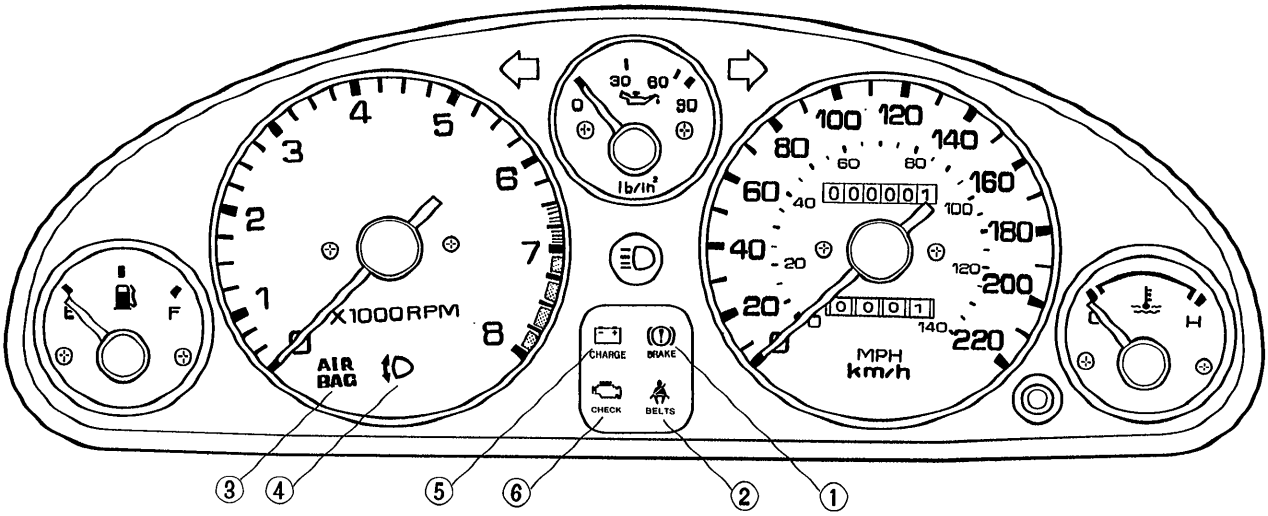
SPEEDOMETER CABLE

Inspection

1. Disconnect the speedometer cable from the instrument cluster and transmission case.
2. Verify that the cable and gear spin easily when turned by hand.
3. If the cable or gear is stiff, replace as necessary.

WARNING LAMP AND SENDER UNIT

STRUCTURAL VIEW


E
F
X1000RPM
AIR BAG
0
30
60
90
lb/in²
CHARGE
BRAKE
CHECK
BELTS
MPH
km/h
C
H
③
④
⑤
⑥
②
①

05U0TX-073

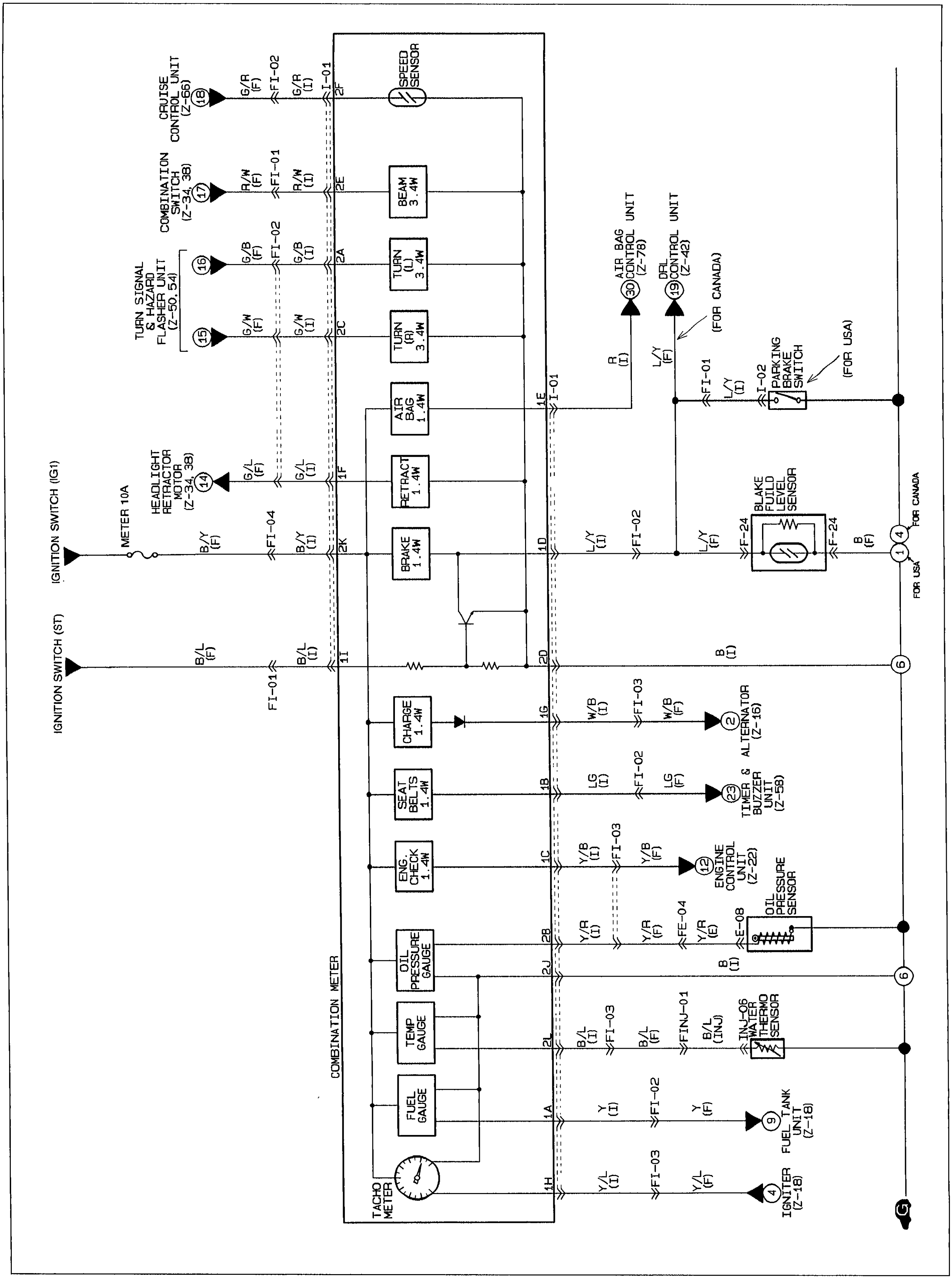
1. Brake warning lamp
2. Seat belt warning lamp
3. Air bag warning lamp
4. Headlight retractor motor indicator lamp
5. Alternator warning lamp
6. MIL (Malfunction indicator lamp)

Note

- **Refer to the following tables concerning warning lamps information.**

Warning indicator lamp	Reference page and Section
Air bag	T–138
Headlight retractor	T–53
Alternator	Section G
MIL (Malfunction indicator lamp)	Section F

CIRCUIT DIAGRAM


IGNITION SWITCH (ST)
IGNITION SWITCH (IG1)
METER 10A
HEADLIGHT RETRACTOR MOTOR (Z-34, 38)
TURN SIGNAL & HAZARD FLASHER UNIT (Z-50, 54)
COMBINATION SWITCH (Z-34, 38)
CRUISE CONTROL UNIT (Z-66)
SPEED SENSOR
BEAM 3.4W
TURN (L) 3.4W
TURN (R) 3.4W
AIR BAG 1.4W
RETRACT 1.4W
BRAKE 1.4W
CHARGE 1.4W
SEAT BELTS 1.4W
ENG. CHECK 1.4W
OIL PRESSURE GAUGE
TEMP GAUGE
FUEL GAUGE
TACHO METER
COMBINATION METER
AIR BAG CONTROL UNIT (Z-78)
DRL CONTROL UNIT (Z-42)
(FOR CANADA)
PARKING BRAKE SWITCH
(FOR USA)
BLAKE FUILD LEVEL SENSOR
FOR CANADA
FOR USA
ALTERNATOR (Z-16)
TIMER & BUZZER UNIT (Z-58)
ENGINE CONTROL UNIT (Z-22)
OIL PRESSURE SENSOR
WATER THERMO SENSOR
FUEL TANK UNIT (Z-18)
IGNITER (Z-18)
FI-01
FI-02
FI-03
FI-04
FE-04
E-08
I-01
I-02
F-24
FINJ-01
INJ-06
2F
2E
2A
2C
1E
1F
2K
1D
1I
2D
1G
1B
1C
2B
2J
2L
1A
1H
G/R (F)
G/R (I)
R/W (F)
R/W (I)
G/B (F)
G/B (I)
G/W (F)
G/W (I)
G/L (F)
G/L (I)
B/Y (F)
B/Y (I)
B/L (F)
B/L (I)
R (I)
L/Y (F)
L/Y (I)
B (F)
B (I)
W/B (I)
W/B (F)
LG (I)
LG (F)
Y/B (I)
Y/B (F)
Y/R (I)
Y/R (F)
Y/R (E)
B/L (INJ)
Y (I)
Y (F)
Y/L (I)
Y/L (F)
18
17
16
15
14
30
19
2
23
12
9
4
6
1
G

05U0TX-074

TROUBLESHOOTING

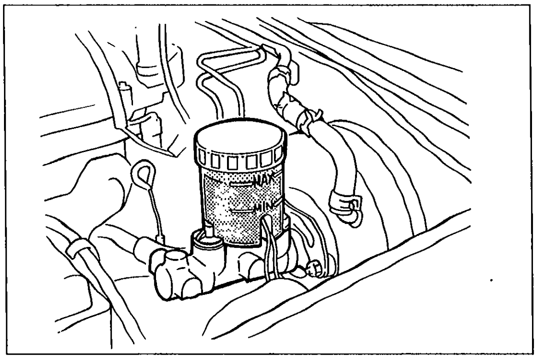
Note

- **Check the METER 10A fuse in the fuse box before troubleshooting. If normal, refer to the following troubleshooting.**

Brake Warning Lamp

Symptom: Brake warning lamp remains illuminated.

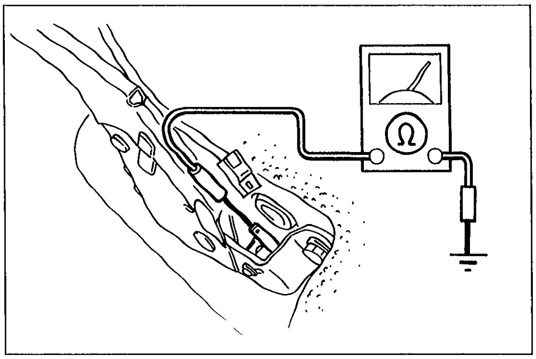
05U0TX-288



05U0TX-289

Step 1 — Check brake fluid level
Check brake fluid level.

Brake fluid level	Action
Below MIN	Check brake system (Refer to Section P)
Above MIN	Go to Step 2



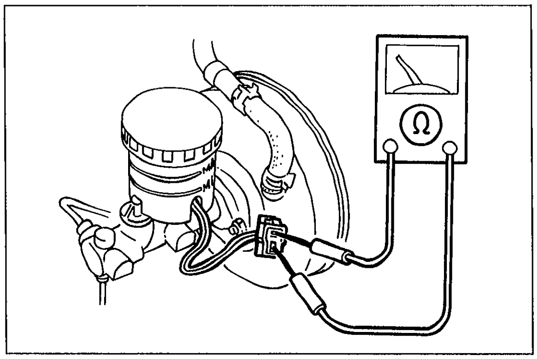
05U0TX-075

Step 2 — Check parking brake switch

1. Disconnect the parking brake switch connector.
2. Check continuity between the terminal of the switch and a body ground.

Lever	Continuity
Pulled one notch	Yes
Released	No

3. If not as specified, adjust or replace the parking brake switch. (Refer to Section P.)
4. If the switch is OK, go to Step 3.



05U0TX-290

Step 3 — Check brake fluid level sensor

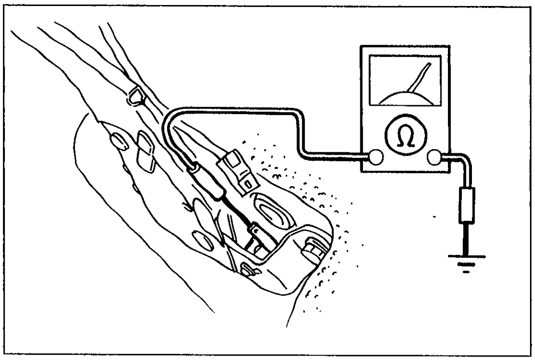
1. Check continuity of the sensor.

Brake fluid level	Continuity
Below MIN	Yes
Above MIN	No

2. If not as specified, replace the level sensor.
3. If the sensor is OK, repair the wiring harness.

Symptom: Brake warning lamp does not come on when parking brake on. (Ignition switch ON.)

9MU0TX-101


05U0TX-291

Remedy

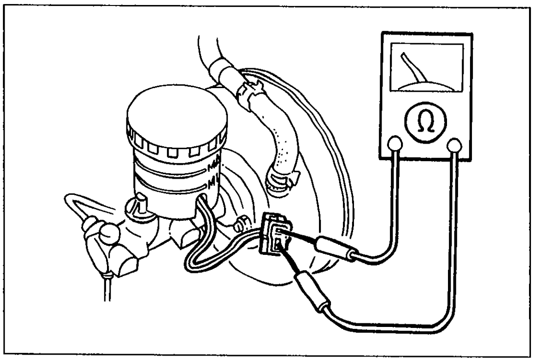
1. Disconnect the parking brake switch connector.
2. Check continuity between the terminal of the switch and a body ground.

Lever	Continuity
Pulled one notch	Yes
Released	No

3. If not as specified, adjust or replace the parking brake switch.
4. If the switch is OK, repair the wiring harness.

Symptom: Brake warning lamp does not come on when brake fluid in reservoir tank below MIN.

05U0TX-292


05U0TX-293

Remedy

1. Disconnect the brake fluid level sensor connector.
2. Check continuity of the brake fluid level sensor.

Brake fluid level	Continuity
Below MIN	Yes
Above MIN	No

3. If not as specified, replace the level sensor.
4. If the sensor is OK, repair the wiring harness.

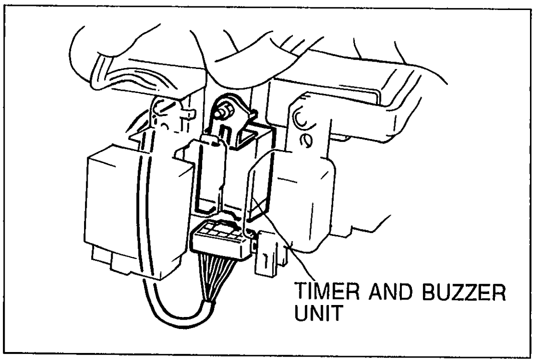
Seat Belt Warning Lamp

Note

- **The seat belt warning lamp is controlled by the timer and buzzer unit.**

Symptom: Seat belt warning lamp remains on six seconds after ignition switch turned ON. (Timer function does not operate.)

05U0TX-076



05U0TX-077

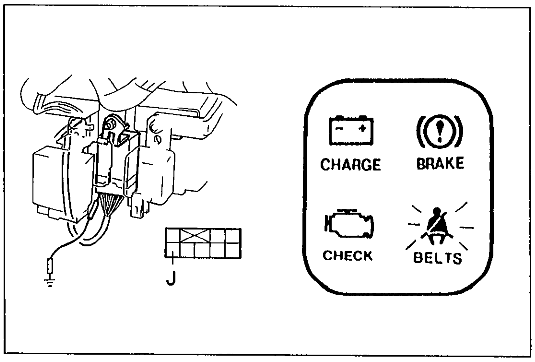
Remedy

1. Disconnect the timer and buzzer unit connector.
2. Turn the ignition switch ON, and verify that the seat belt warning lamp illuminates.

Warning lamp illuminates	Action
No	Replace timer and buzzer unit
Yes	Repair wiring harness (Instrument cluster — timer and buzzer unit)

Symptom: Seat belt warning lamp does not illuminate when ignition switch first turned ON.

05U0TX-294

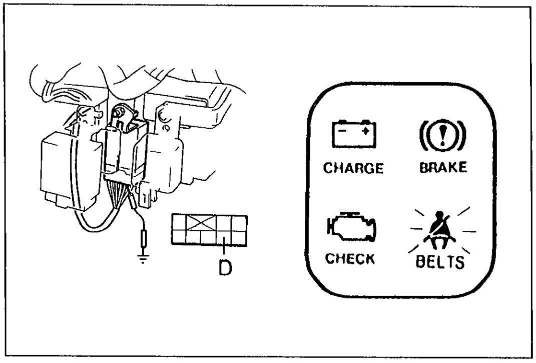


05U0TX-078

Step 1

1. Ground terminal J of the timer and buzzer unit connector.
2. Turn the ignition switch ON, and verify that the seat belt warning lamp illuminates.

Warning lamp illuminates	Action
No	Go to Step 2
Yes	Repair wiring harness (Timer and buzzer unit—body ground)

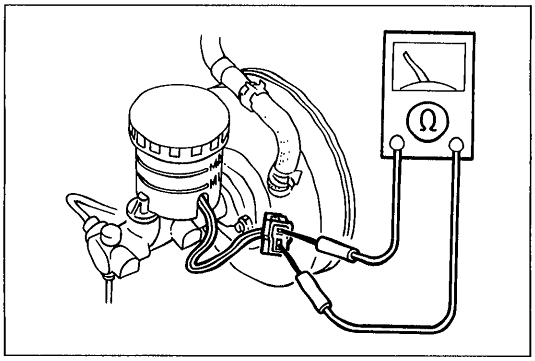


05U0TX-079

Step 2

1. Ground terminal D of the timer and buzzer unit connector.
2. Turn the ignition switch ON, and verify that the seat belt warning lamp illuminates.

Warning lamp illuminates	Action
Yes	Replace timer and buzzer unit
No	Check bulb of seat belt warning lamp If bulb is OK, repair wiring harness (Instrument cluster—timer and buzzer unit)



05U0TX-080

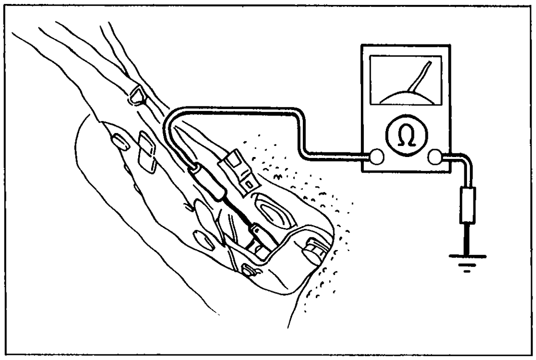
BRAKE FLUID LEVEL SENSOR

Inspection

1. Check continuity of the sensor.

Float level	Continuity
Below MIN	Yes
Above MIN	No

2. If continuity is not as specified, replace the level sensor.



05U0TX-081

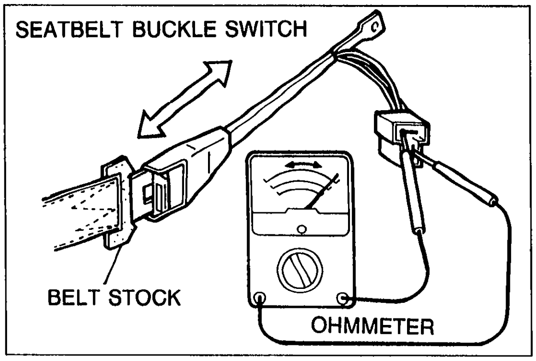
PARKING BRAKE SWITCH

Inspection

1. Disconnect the parking brake switch connector.
2. Check for continuity between the switch connector and a body ground.

Lever	Continuity
Pulled one notch	Yes
Released	No

3. If continuity is not as specified, adjust or replace the parking brake switch.



05U0TX-082

SEAT BELT BUCKLE SWITCH

Inspection

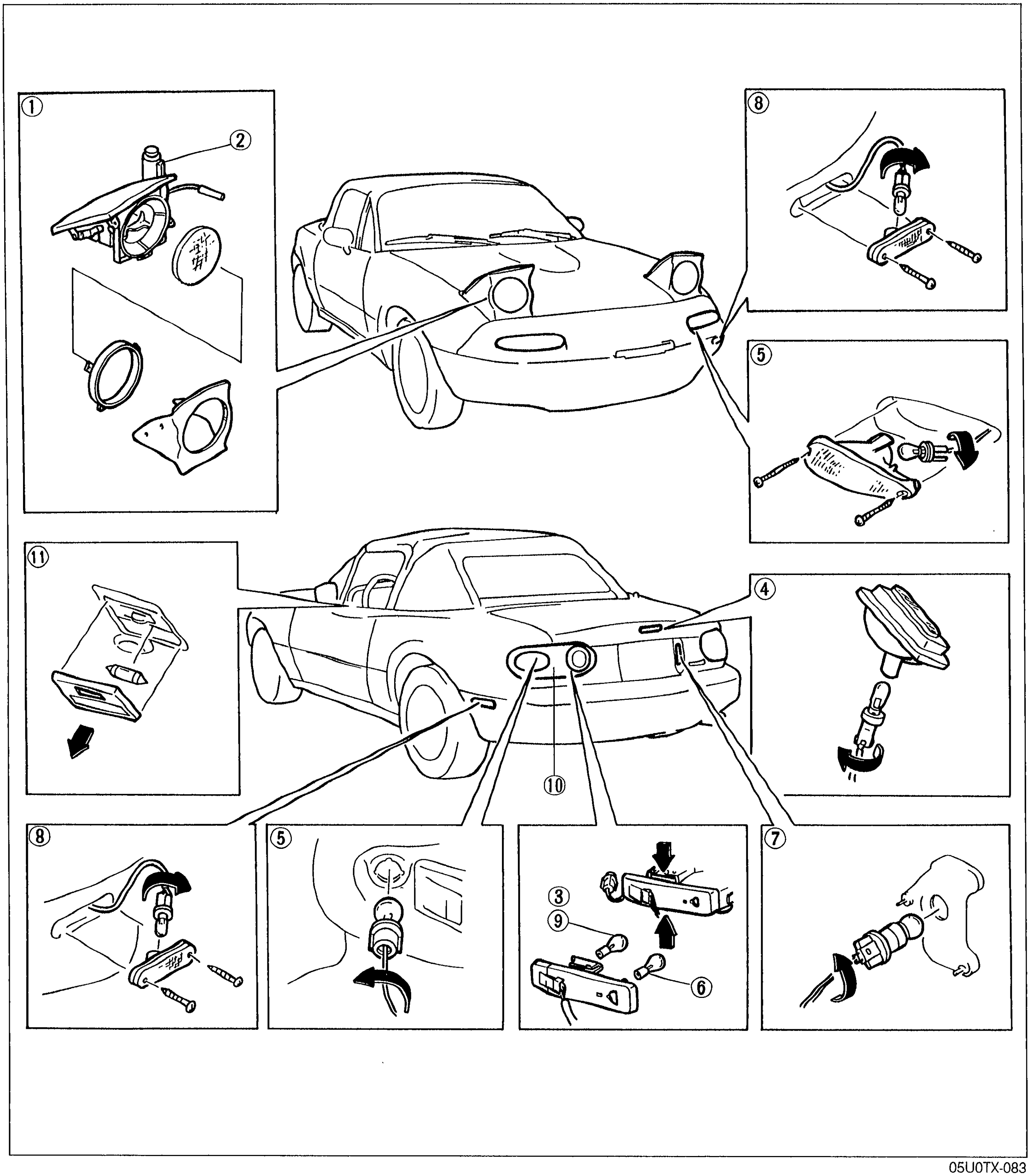
1. Disconnect the seat belt buckle switch connector.
2. Check continuity of the switch.

Seat belt	Continuity
Seat belt buckled	No
Seat belt unbuckled	Yes

3. If continuity is not as specified, replace the buckle switch.

LIGHTING SYSTEM

STRUCTURAL VIEW

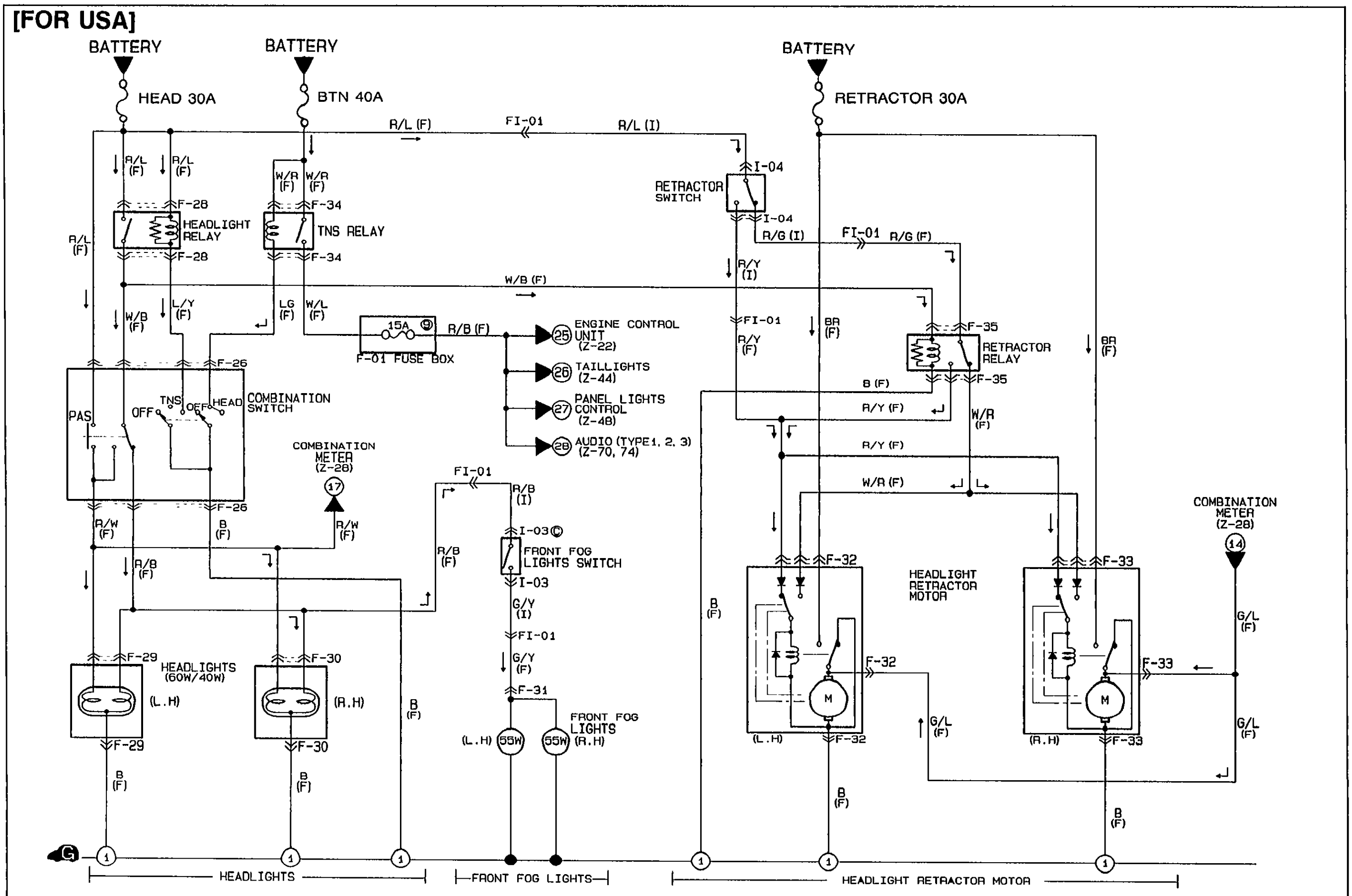


05U0TX-083

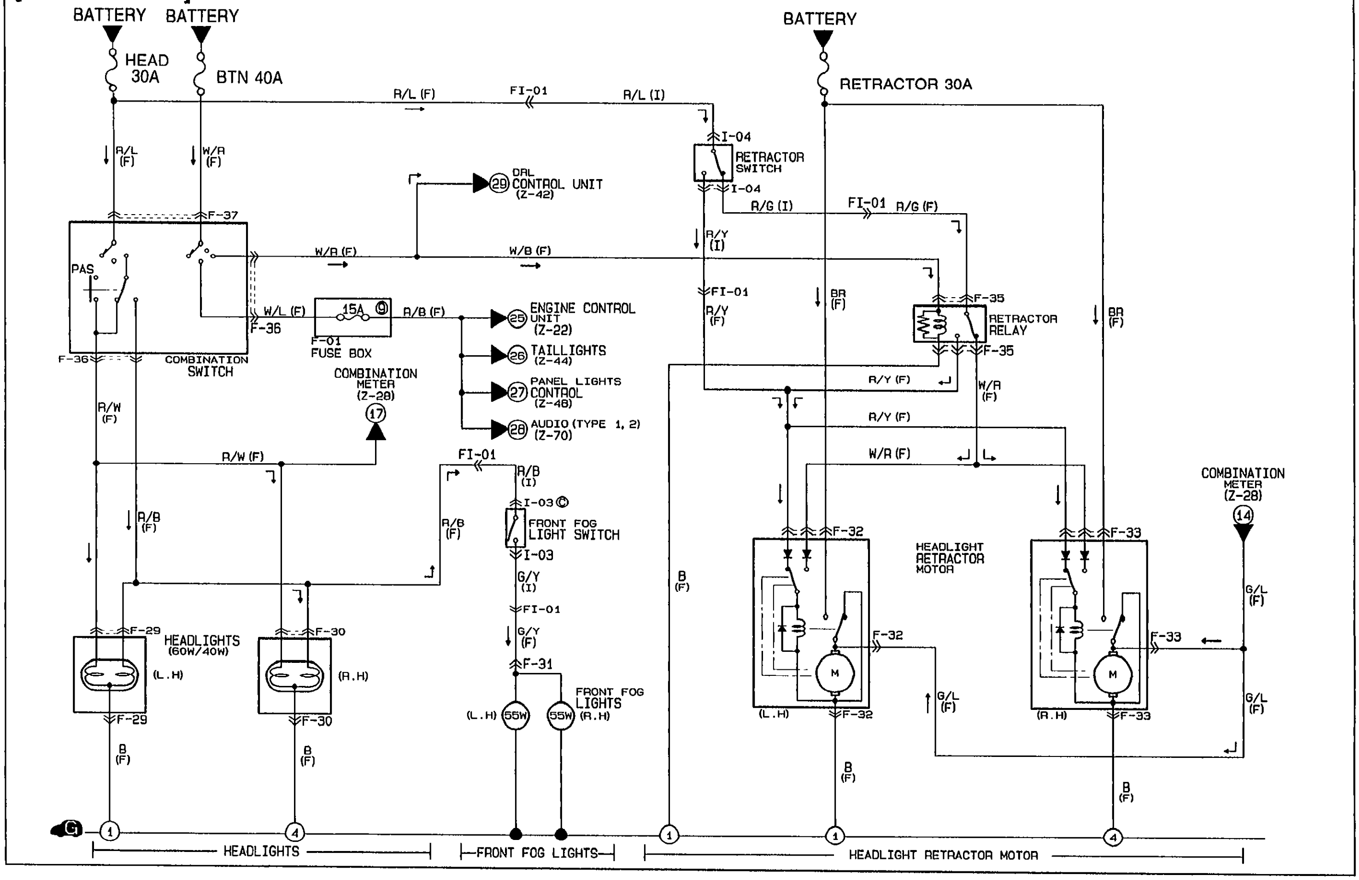
1. Retractable headlight
2. Headlight retractor motor
3. Stoplight
4. High-mount stoplight
5. Turn and hazard warning light
6. Back-up light
7. License plate light
8. Side marker light
9. Taillight
10. Rear combination light lens
11. Interior lamp

HEADLIGHTS
Circuit Diagram

[FOR USA]


BATTERY
HEAD 30A
BATTERY
BTN 40A
BATTERY
RETRACTOR 30A
R/L (F)
FI-01
R/L (I)
I-04
RETRACTOR SWITCH
R/G (I)
R/G (F)
R/Y (I)
W/R (F)
W/R (F)
F-28
HEADLIGHT RELAY
F-34
TNS RELAY
W/B (F)
L/Y (F)
LG (F)
W/L (F)
15A ⑨
R/B (F)
F-01 FUSE BOX
㉕ ENGINE CONTROL UNIT (Z-22)
㉖ TAILLIGHTS (Z-44)
㉗ PANEL LIGHTS CONTROL (Z-48)
㉘ AUDIO (TYPE1, 2, 3) (Z-70, 74)
BR (F)
F-35
RETRACTOR RELAY
B (F)
R/Y (F)
F-26
PAS
OFF
TNS
HEAD
COMBINATION SWITCH
COMBINATION METER (Z-28)
⑰
R/W (F)
B (F)
R/B (F)
R/B (I)
I-03©
FRONT FOG LIGHTS SWITCH
G/Y (I)
G/Y (F)
F-31
FRONT FOG LIGHTS
(L.H) 55W
55W (R.H)
F-29
HEADLIGHTS (60W/40W)
(L.H)
F-30
(R.H)
F-32
HEADLIGHT RETRACTOR MOTOR
F-33
M
COMBINATION METER (Z-28)
⑭
G/L (F)
①
HEADLIGHTS
FRONT FOG LIGHTS
HEADLIGHT RETRACTOR MOTOR

[FOR CANADA]


BATTERY
BATTERY
HEAD 30A
BTN 40A
BATTERY
RETRACTOR 30A
R/L (F)
FI-01
R/L (I)
I-04
RETRACTOR SWITCH
R/G (I)
R/G (F)
R/Y (I)
R/L (F)
W/R (F)
F-37
㉘ DRL CONTROL UNIT (Z-42)
W/R (F)
W/B (F)
PAS
W/L (F)
F-36
COMBINATION SWITCH
15A ⑨
R/B (F)
F-01 FUSE BOX
㉕ ENGINE CONTROL UNIT (Z-22)
㉖ TAILLIGHTS (Z-44)
㉗ PANEL LIGHTS CONTROL (Z-48)
㉘ AUDIO (TYPE 1, 2) (Z-70)
COMBINATION METER (Z-28)
⑰
R/W (F)
R/B (F)
R/B (I)
I-03©
FRONT FOG LIGHT SWITCH
G/Y (I)
G/Y (F)
F-31
FRONT FOG LIGHTS
(L.H) 55W
55W (R.H)
F-29
HEADLIGHTS (60W/40W)
(L.H)
F-30
(R.H)
B (F)
BR (F)
F-35
RETRACTOR RELAY
R/Y (F)
W/R (F)
F-32
HEADLIGHT RETRACTOR MOTOR
F-33
M
COMBINATION METER (Z-28)
⑭
G/L (F)
①
④
HEADLIGHTS
FRONT FOG LIGHTS
HEADLIGHT RETRACTOR MOTOR

05U0TX-084

Description

The headlight system consists of two halogen headlights mounted on retractable mechanisms, a headlight switch in the combination switch, and a retractor switch between the center ventilation outlets.
When the headlight switch is rotated to the second position, the headlights are activated and the headlight retractor motors lift the headlights. If only the retractor switch is turned ON, the headlights will raise to the upright position, but all lights will be off.
An emergency manual retractor knob is located atop each headlight retractor motor.

Warning

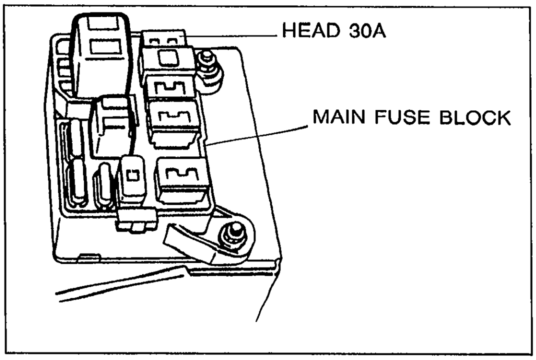
- **When using the manual control knob, the negative battery cable must be disconnected to prevent accidental movement of the headlight and possible injury.**

05U0TX-085

Troubleshooting

Symptom: Headlights do not operate. (U.S. spec.)

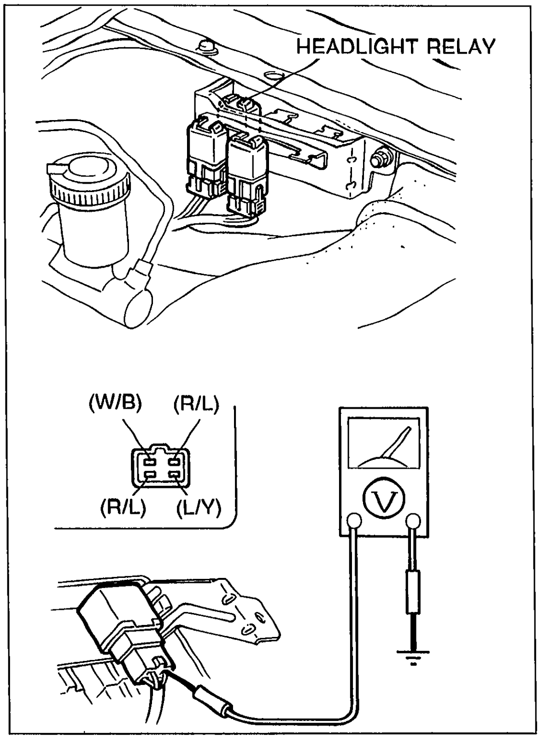
05U0TX-086



05U0TX-295

Step 1

1. Check HEAD 30A fuse in the main fuse block.
2. If the fuse is burned, replace it. Check and repair the wiring harness, if necessary.
3. If the fuse is OK, go to Step 2.

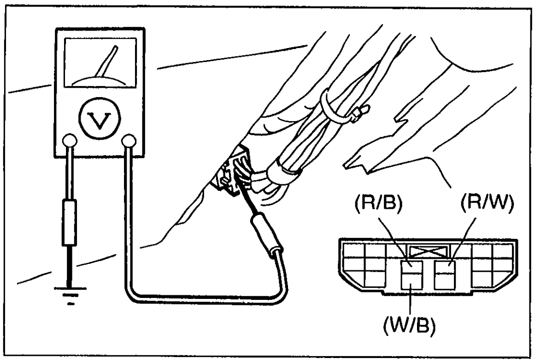


05U0TX-087

Step 2

1. Turn the headlight switch ON.
2. Measure the voltage at the following terminal-wires of the headlight relay connector.

Terminal-wire	Voltage	Action
(W/B)	12V	Go to Step 3
	0V	Next check wire (L/Y)
(L/Y)	12V	Go to Step 6
	0V	Next check wire (R/L)
(R/L: Terminal A)	12V	Next check wire (R/L)
	0V	Repair wire (R/L) (HEAD 30A—Headlight relay)
(R/L: Terminal D)	12V	Replace headlight relay
	0V	Repair wire (R/L) (HEAD 30A—Headlight relay)

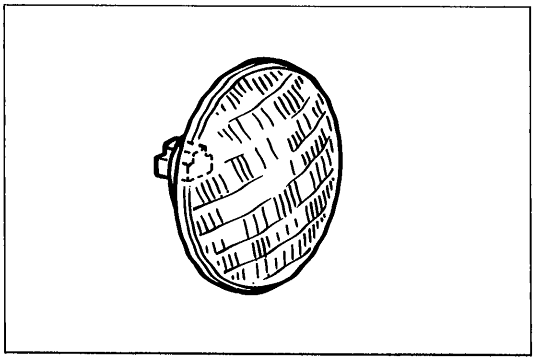


05U0TX-088

Step 3

1. Turn the headlight switch ON.
2. Measure the voltage at the following terminal-wires of the headlight switch connector.

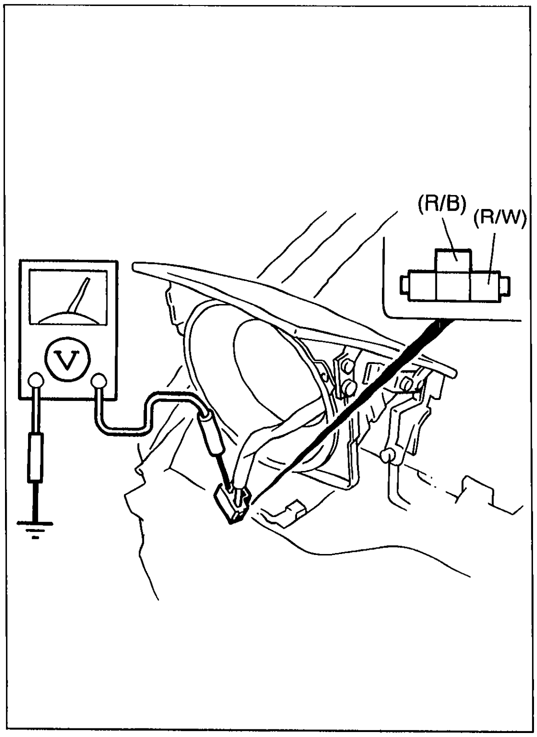
Wire	Headlight switch	Voltage	Action
(W/B)	—	12V	Next check wire (R/B)
		0V	Repair wire (W/B) (Headlight relay—Headlight switch)
(R/B)	Low beam	12V	Go to Step 4
		0V	Replace headlight switch
(R/W)	High beam	12V	Go to Step 4
		0V	Replace headlight switch



05U0TX-089

Step 4

1. Check the headlight bulbs.
2. If a bulb is burned, replace it.
3. If the bulbs are OK, go to Step 5.

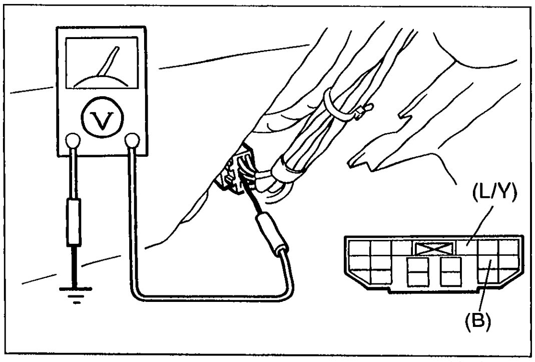


05U0TX-090

Step 5

1. Disconnect the headlight connectors.
2. Turn the headlight switch ON, and measure the voltage at the following terminal-wires as shown.

Headlight	Wire	Headlight switch	Voltage	Remedical Action
Left	(R/B)	Low beam	12V	Repair ground wire (B)
			0V	Repair wire (R/B) (Headlight switch—Headlight)
	(R/W)	High beam	12V	Repair ground wire (B)
			0V	Repair wire (R/W) (Headlight switch—Headlight)
Right	(R/B)	Low beam	12V	Repair ground wire (B)
			0V	Repair wire (R/W) (Headlight switch—Headlight)
	(R/W)	High beam	12V	Repair ground wire (B)
			0V	Repair wire (R/W) (Headlight switch—Headlight)



05U0TX-091

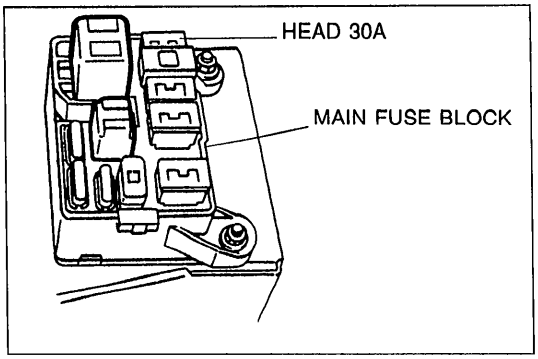
Step 6

1. Turn the headlight switch ON.
2. Measure the voltage at the following terminal-wires of the headlight switch connector (in the combination switch).

Wire	Voltage	Action
(L/Y)	12V	Next check wire (B)
	0V	Repair wire (L/Y) (Headlight relay—Headlight switch)
(B)	12V	Repair ground wire (B)
	0V	Replace headlight switch

Symptom: Headlights do not operate. (Canada spec.)

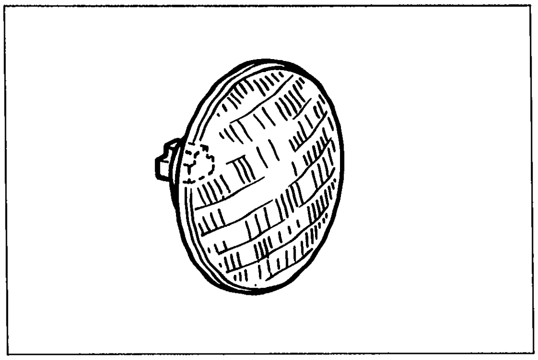
05U0TX-092



05U0TX-296

Step 1

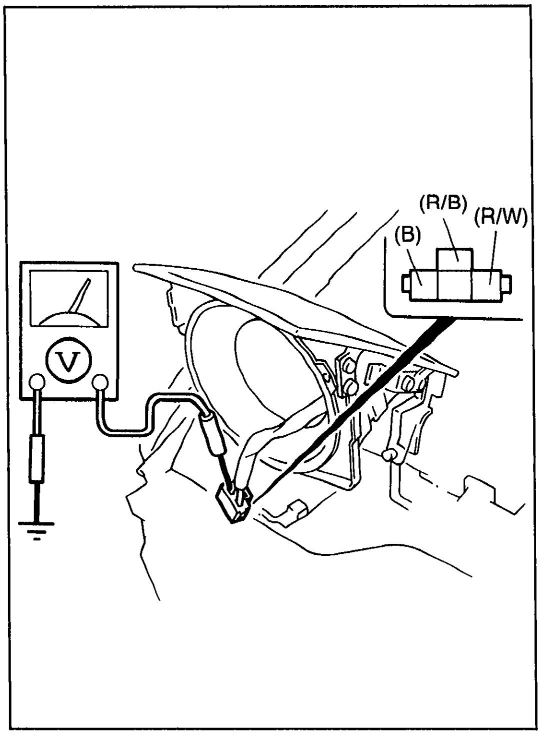
1. Check HEAD 30A fuse in the main fuse block.
2. If the fuse is burned, replace it. Check and repair the wiring harness, if necessary.
3. If the fuse is OK, go to Step 2.



05U0TX-297

Step 2

1. Check the headlight bulbs.
2. If a bulb is burned, replace it.
3. If the bulbs are OK, go to Step 3.

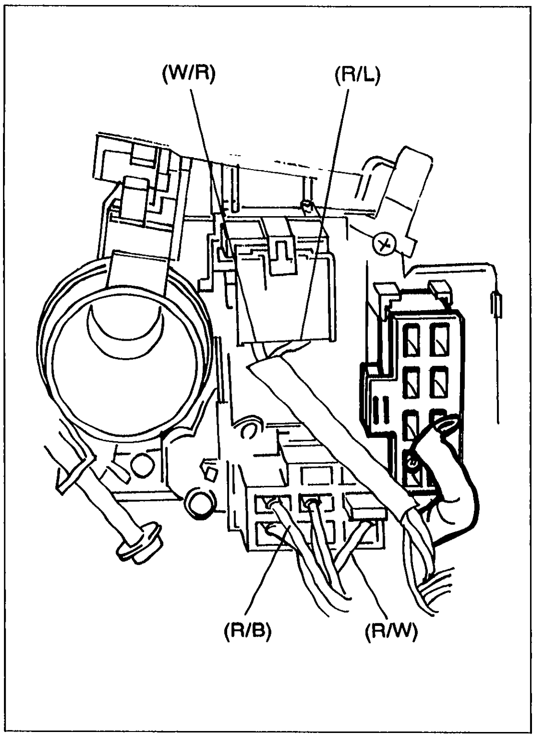


05U0TX-298

Step 3

1. Turn the headlight switch ON.
2. Disconnect the headlight connector, and measure the voltage at the following terminal-wires as shown.

Headlight	Wire	Headlight switch	Voltage	Action
Left	(R/W)	High beam	12V	Next, check wire (R/B)
			0V	Go to Step 4
	(R/B)	Low beam	12V	Next, check wire (B)
			0V	Go to Step 4
	(B)	Any position	0V	Next, check right side
			12V	Repair ground wire (B)
Right	(R/W)	High beam	12V	Next, check wire (R/B)
			0V	Go to Step 4
	(R/B)	Low beam	12V	Next, check wire (B)
			0V	Go to Step 4
	(B)	Any position	0V	Check for poor connection of headlight connector
			12V	Go to Step 4

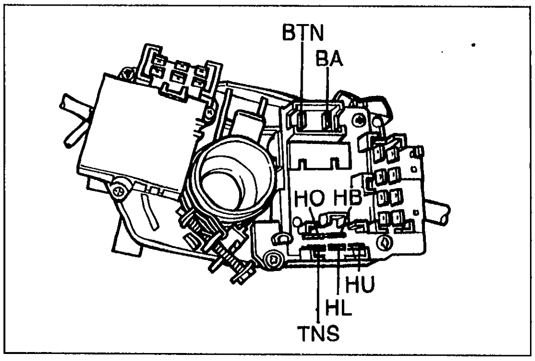


05U0TX-299

Step 4

1. Reconnect the headlight connector.
2. Remove the column cover.
3. Measure the voltage at the following terminal-wires of the headlight switch connectors (in the combination switch) as shown.

Wire	Headlight switch	Voltage	Action
(R/L)	Any position	12V	Next, check wire (W/R)
		0V	Repair wire (R/L) (HEAD 30A fuse—Headlight switch)
(W/R)	Any position	12V	Next, check wire (R/W)
		0V	Repair wire (W/R) (BTN 40A fuse—Headlight switch)
(R/W)	ON (High beam)	12V	Next, check wire (R/B)
		0V	Go to Step 5
(R/B)	ON (Low beam)	12V	Check for poor connection of headlight switch connector
		0V	Go to Step 5



05U0TX-300

Step 5 — Headlight switch inspection

1. Disconnect the headlight switch connectors.
2. Check for continuity between terminals as shown with an ohmmeter.

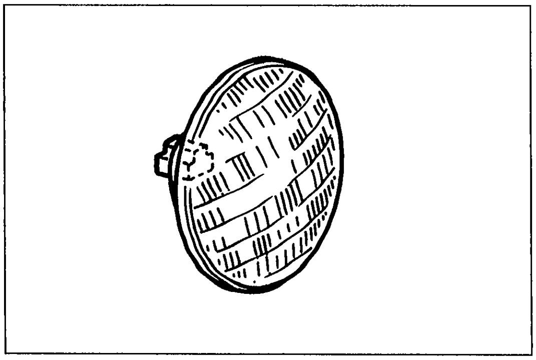
Position		Terminal					
		HB	HL	HU	BA	BTN	TNS
Headlight	Low beam	○	○			○	○
		○	—	—	○		
	High beam	○	—	○		○	○
		○	—	—	○		
Parking				○	○		
Tail, Parking						○	○

○—○: Indicates continuity

3. If not as specified, replace the headlight switch.
4. If correct, check for a poor connection in the system.

Symptom: Headlight does not operate (right or left).

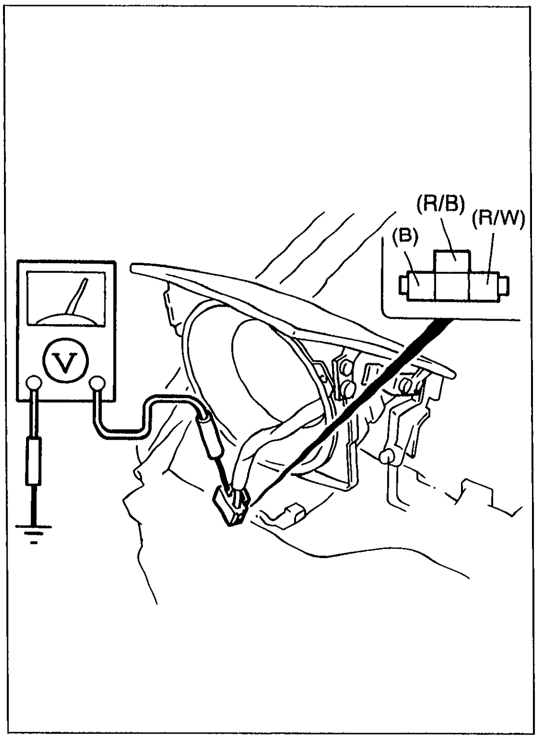
05U0TX-093



05U0TX-094

Step 1

1. Check the headlight bulbs.
2. If a bulb is burned replace it.
3. If the bulbs are OK, go to Step 2.



05U0TX-095

Step 2

1. Disconnect the headlight connectors of the faulty side.
2. Turn the headlight switch ON, and measure the voltage at the following terminal-wires as shown.

Headlight	Wire	Headlight switch	Voltage	Action
Left	(R/B)	Low beam	12V	Repair ground wire (B)
			0V	Repair wire (R/B) (Headlight switch—Headlight)
	(R/W)	High beam	12V	Repair ground wire (B)
			0V	Repair wire (R/W) (Headlight switch—Headlight)
Right	(R/B)	Low beam	12V	Repair ground wire (B)
			0V	Repair wire (R/B) (Headlight switch—Headlight)
	(R/W)	High beam	12V	Repair ground wire (B)
			0V	Repair wire (R/W) (Headlight switch—Headlight)

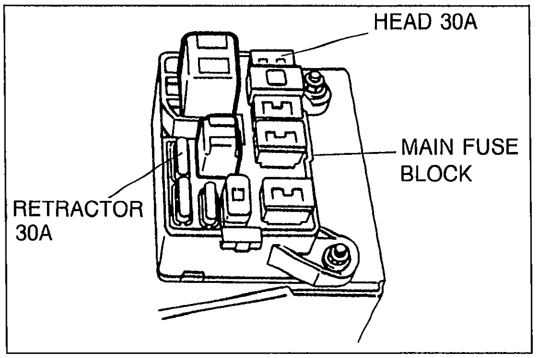
Symptom: Headlight retractor motors do not operate (both sides).

Note

- **Before troubleshooting verify the symptom by activating the headlight switch and retractor switch.**
- **Check the system using the appropriate troubleshooting below.**

Switch	Retractor motor(s) operate	Action
Headlight switch ON	Yes	Begin troubleshooting from Step 5
	No	Next, turn ON retractor switch
Retractor switch ON	Yes	Begin troubleshooting from Step 4
	No	Begin troubleshooting from Step 1

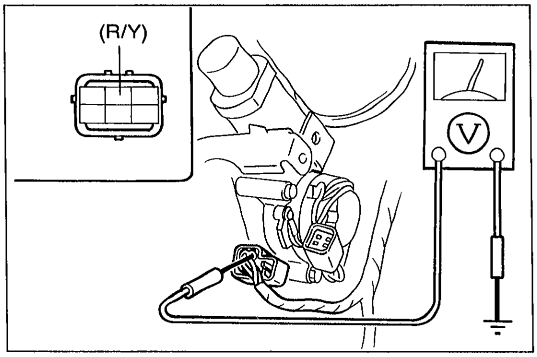
05U0TX-096



05U0TX-097

Step 1

1. Check RETRACT 30A and HEAD 30A fuses in the main fuse block.
2. If a fuse is burned, replace it. Check and repair the wire harness, if necessary.
3. If the fuses are OK, go to Step 2.

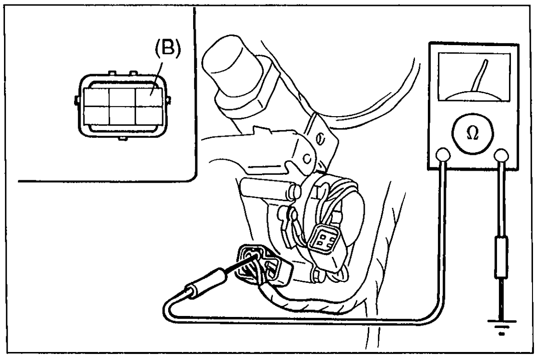


05U0TX-098

Step 2

1. Retract the headlights fully using the manual knobs.
2. Disconnect the retractor motor connectors.
3. Turn on the headlight switch and retractor switch.
4. Measure the voltage at the following terminal-wires of the retractor motor connectors.

Retractor motor	Wire	Voltage	Action
Left and Right	(R/Y)	12V	Go to Step 3
		0V	Go to Step 4

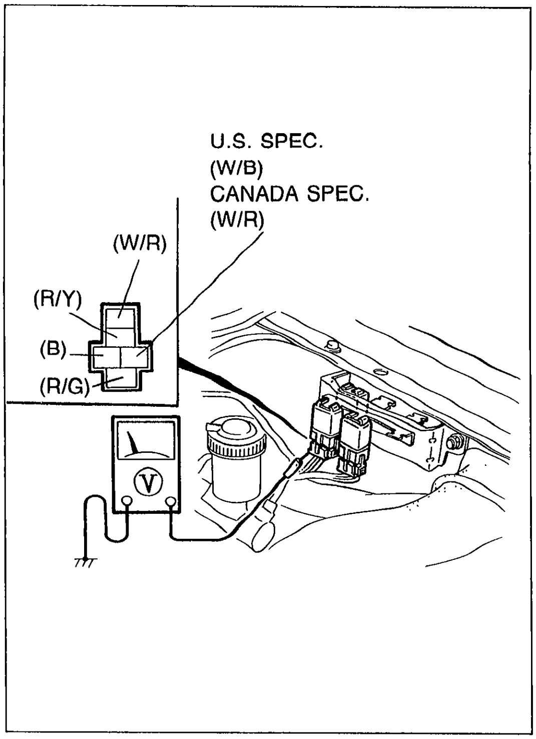


05U0TX-099

Step 3

1. Disconnect the retractor motor connectors.
2. Check for continuity between terminal-wire (B) of the retractor motor connectors and a body ground.

Retractor motor	Continuity	Action
Left and Right	No	Repair wire (B)
	Yes	Check retractor motor (Refer to page T—56)



05U0TX-100

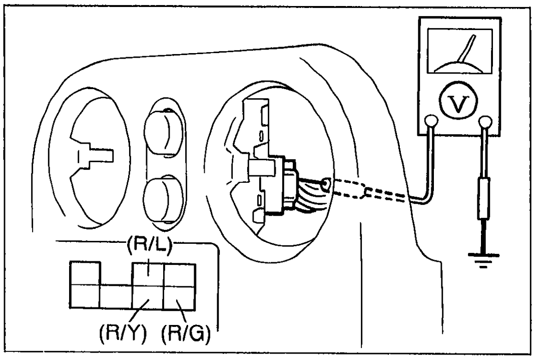
Step 4
1. Turn off the retractor switch.
2. Turn on the headlight switch.
3. Measure the voltage at the following terminal-wires of the retractor relay connector.

U.S. spec.

Wire	Voltage	Action
(R/G)	12V	Next check wire (W/B)
	0V	Go to Step 5
(W/B)	12V	Next check wire (B)
	0V	Repair wire (W/B) (Headlight relay—Retractor relay)
(B)	12V	Repair ground wire (B)
	0V	Next check wire (R/Y)
(R/Y)	12V	Repair wire (R/Y) (Retractor relay—Retractor motor)
	0V	Replace retractor relay

Canada spec.

Wire	Voltage	Action
(R/G)	12V	Next check wire (W/R)
	0V	Go to Step 5
(W/R)	12V	Next check wire (B)
	0V	Repair wire (W/R) (Headlight switch—Retractor relay)
(B)	12V	Repair ground wire (B)
	0V	Next check wire (R/Y)
(R/Y)	12V	Repair wire (R/Y) (Retractor relay—Retractor motor)
	0V	Replace retractor motor



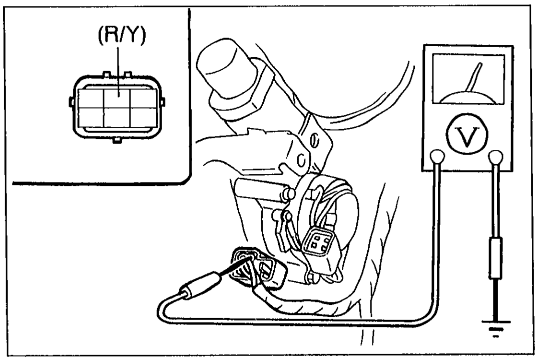
05U0TX-101

Step 5
Measure the voltage at the terminal-wires of the retractor switch.

Wire	Retractor switch	Voltage	Action
(R/L)	Any position	12V	Next check wire (R/G) and (R/Y)
		0V	Repair wire (R/L) (Retract 30A—Retractor switch)
(R/G)	OFF	12V	Repair wire (R/G) (Retractor switch—Retractor motor)
		0V	Replace retractor switch
(R/Y)	ON	12V	Repair wire (R/Y) (Retractor switch—Retractor motor)
		0V	Replace retractor switch

Symptom: Headlight retractor motor does not operate (one side).

05U0TX-102

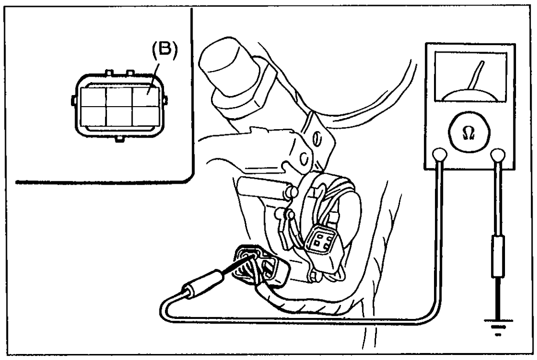


05U0TX-103

Step 1

1. Retract the not working headlight fully using the manual knob.
2. Disconnect the retractor motor connector of the faulty side.
3. Turn on the headlight switch and retractor switch.
4. Check the voltage at the following terminal-wires of the retractor motor connector.

Wire	Voltage	Action
(R/Y)	12V	Go to Step 2
	0V	Repair wire (R/Y) (Retractor relay—Retractor motor)



05U0TX-104

Step 2

Check for continuity between terminal-wire (B) of the faulty retractor motor connector and a body ground.

Continuity	Action
No	Repair wire (B)
Yes	Check retractor motor (Refer to page T–56)

Note

- **A retractor indicator lamp is included in the instrument cluster. The indicator lamp illuminates when the retractor motor is operating and should go out when the headlights are fully raised or retracted.**
  If the indicator lamp remains on, it may be due to pebbles, pieces of ice, etc. lodged between the headlight and the vehicle body. This should be corrected by the following procedure.

1. Turn the ignition switch OFF.

Caution

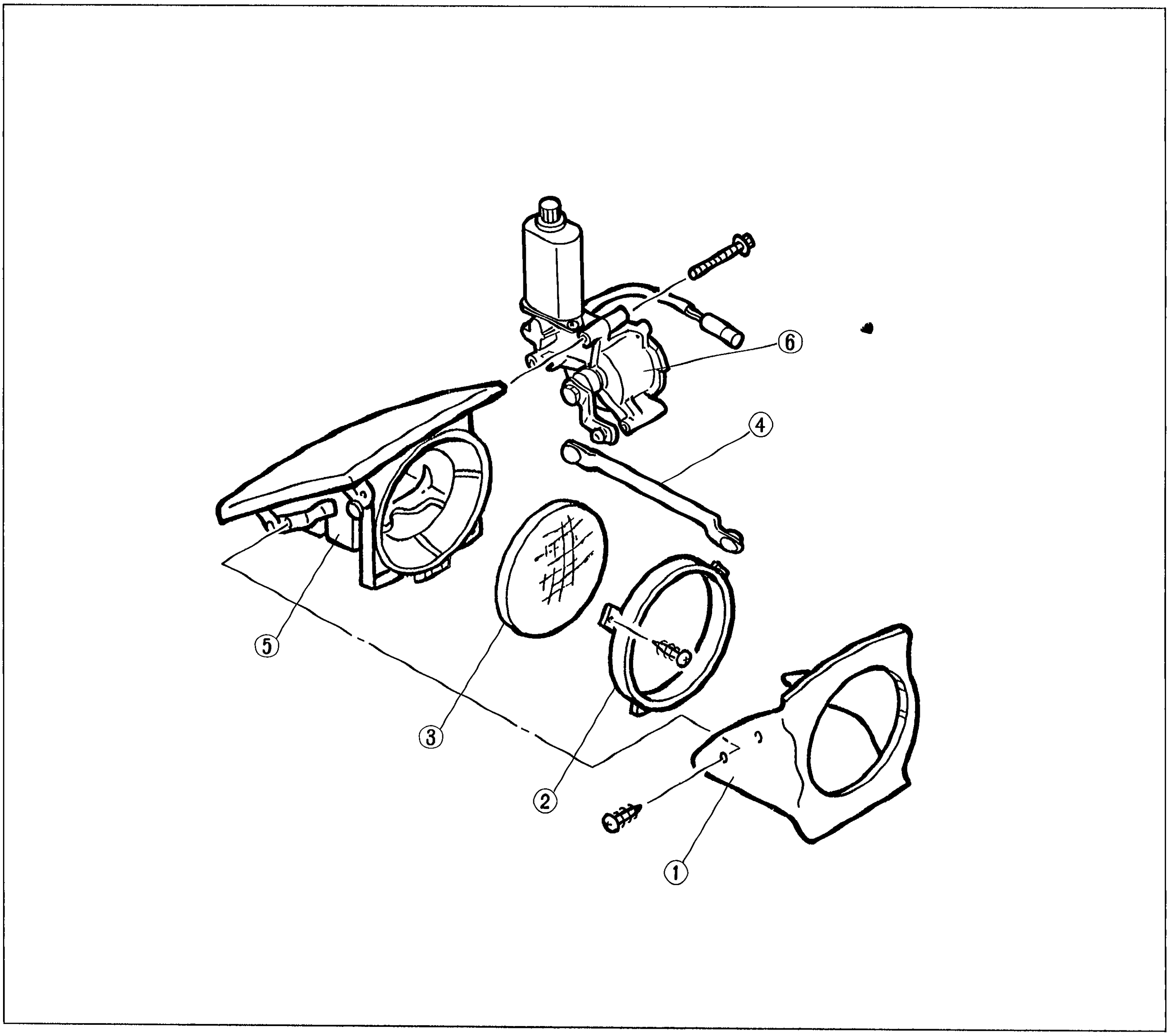
- **Obtain the code number and deactive the audio anti-theft function before disconnecting the battery. (Refer to page T–113.)**

2. Disconnect the negative battery cable or remove RETRACTOR 30A fuse in the main fuse block.
3. Raise or lower the headlight by turing the emergency retractor knob.
4. Remove the obstruction.
5. After verifying that the headlight switch and the retractor switch are OFF, reconnect the negative battery cable.
6. Verify operation of the headlight retractor and the retractor indicator lamp.

05U0TX-458

Removal / Installation

Remove and install as shown in the figure.



05U0TX-105

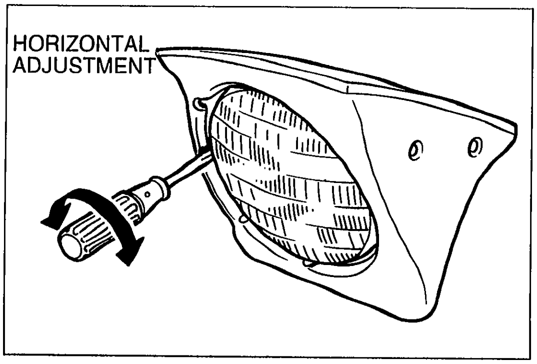
1. Bezel
2. Headlight housing
3. Headlight
4. Motor link
5. Retractor hinge
6. Retractor motor

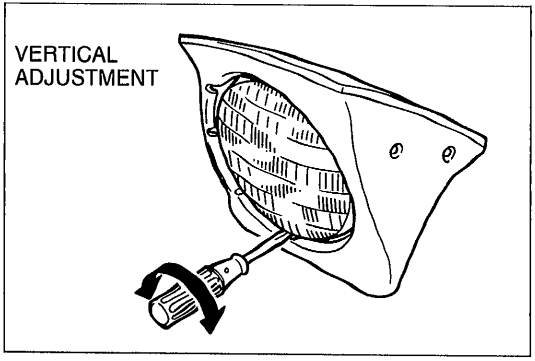
Caution

- **Do not turn the adjusting screws during removal and installation.**

Adjustment

Headlight aiming

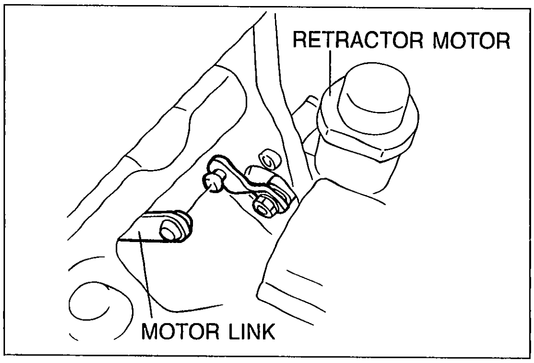

HORIZONTAL ADJUSTMENT


VERTICAL ADJUSTMENT

05U0TX-106

1. Adjust the tire air pressure to specification.
2. Turn on the retractor switch to raise the retractable headlights.
3. Position the unloaded vehicle on a flat, level surface.
4. Adjust the headlights to meet local regulations by turning the two adjusting screws.

Retractor hinge

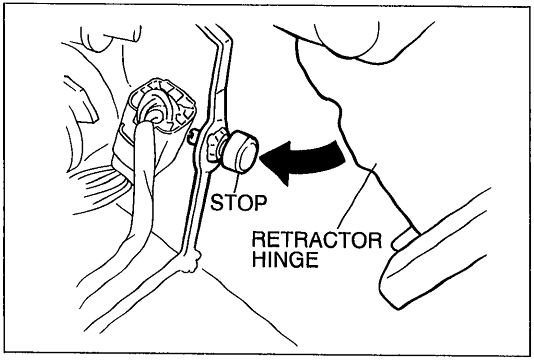

RETRACTOR MOTOR
MOTOR LINK

05U0TX-107

1. Begin with the headlights fully retracted.

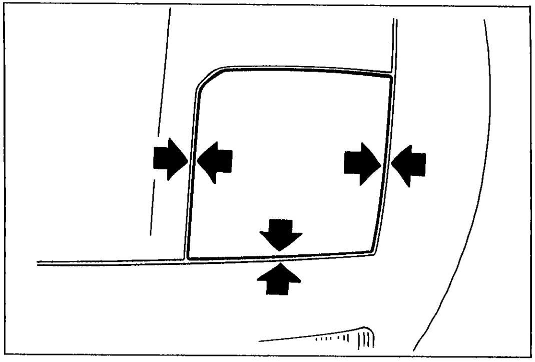
Caution
- **Before disconnecting the negative battery cable, verify the ID code number of audio anti-theft function.**
- **If not, an audio unit may not operate after reconnecting the negative battery cable.**

2. Disconnect the negative battery cable.
3. Disconnect the motor link.


STOP
RETRACTOR HINGE

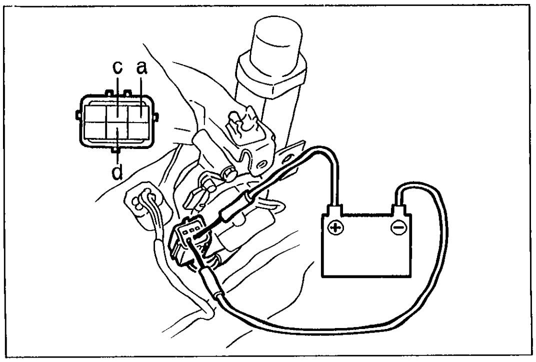
05U0TX-108

4. Lower the retractor hinge until the hinge is stopped by the stop.



05U0TX-109

5. Adjust the stop so that the headlight lid is flush with the fender and hood.



05U0TX-110

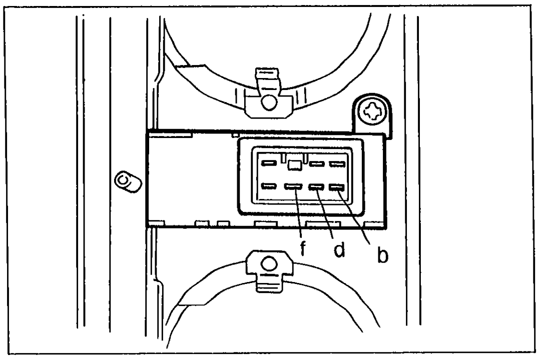
Inspection

Retractor motor

1. Disconnect the motor link.
2. Disconnect the retractor motor connector.
3. Connect 12V to terminal f and ground terminal a of the motor connector.
4. Check the motor operation when connecting 12V as shown.

Terminal		Motor operation
12V	Ground	
c	a	Motor rotates to raised position
d	a	Motor rotates to retracted position

5. If not as specified, replace the retractor motor.



05U0TX-111

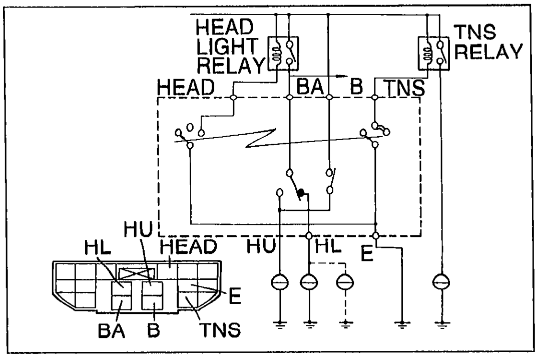
Retractor switch

1. Remove the retractor switch.
2. Check for continuity between terminals of the switch.

Switch	Terminal		
	b	d	f
Off	○—	——	—○
On		○—	—○

○—○: Indicates continuity

3. If not as specified, replace the retractor switch.



05U0TX-112

Headlight switch

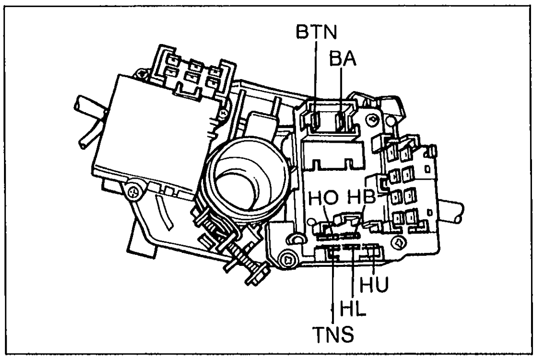
U.S. spec.

1. Remove the knee protector.
2. Disconnect the combination switch connector.
3. Check for continuity between terminals of the switch.

Position		Terminal						
		E	HL	HU	TNS	HEAD	BA	B
Headlight	Low beam	○—	——	——	——	—○		
		○—	——	——	—○			
			○—	——	——	——	—○	
	High beam	○—	——	——	——	—○		
		○—	——	——	—○			
				○—	——	——	—○	
Passing				○—	——	——	——	—○
Tail, Parking		○—	——	——	—○			

○—○: Indicates continuity

4. If not as specified, replace the combination switch as an assembly.



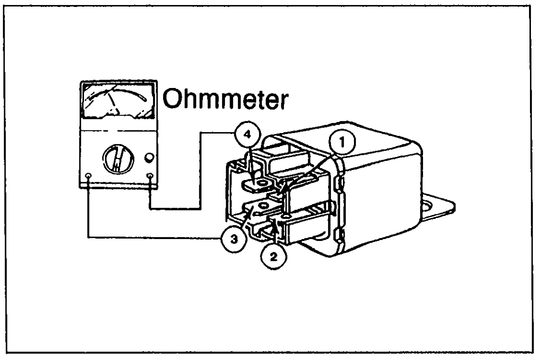
05U0TX-113

Canada spec.

1. Remove the column cover and disconnect the headlight switch connectors.
2. Check for continuity between terminals of the switch.

Position		Terminal					
		HB	HL	HU	BA	BTN	TNS
Headlight	Low beam		O—	—	—O	O—	—O
		O—	—	—	—	—O	
	High beam			O—	—O	O—	—O
		O—	—	—	—	—O	
Passing				O—	—O		
Tail, Parking						O—	—O

O——O: Indicates continuity



05U0TX-114

Headlight relay (U.S. spec.)

1. Check continuity between terminals 3 and 4.

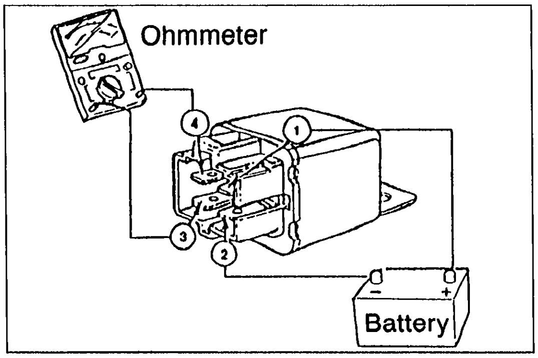
Terminal	Continuity
3—4	No

2. If not as specified, replace the headlight relay.
3. If correct, go to Step 4.

4. Apply 12V to terminal 1 and ground terminal 2.
   Check for continuity between terminals 3 and 4.

Terminal	Continuity
3—4	Yes

5. If not as specified, replace the headlight relay.



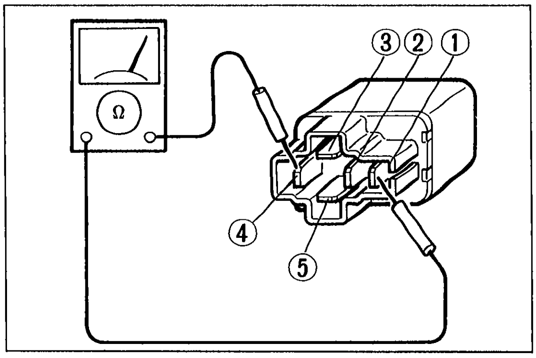
05U0TX-115

Headlight retractor relay

1. Check continuity between terminals of the relay.

Terminal	Continuity
1—4	Yes
2—4	No
3—5	Yes

2. If not as specified, replace the retractor relay.
3. If correct, go to Step 4.

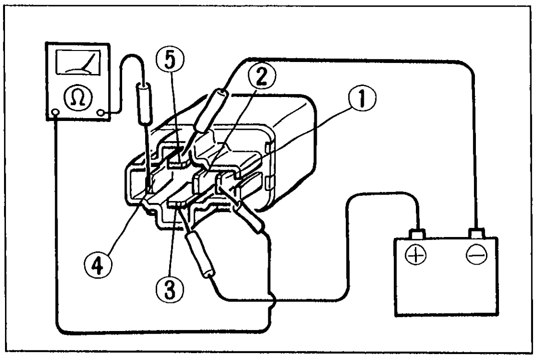


05U0TX-116

4. Apply 12V to terminal 3 and ground terminal 5.
   Check continuity between terminals of the relay.

Terminal	Continuity
1—4	No
2—4	Yes

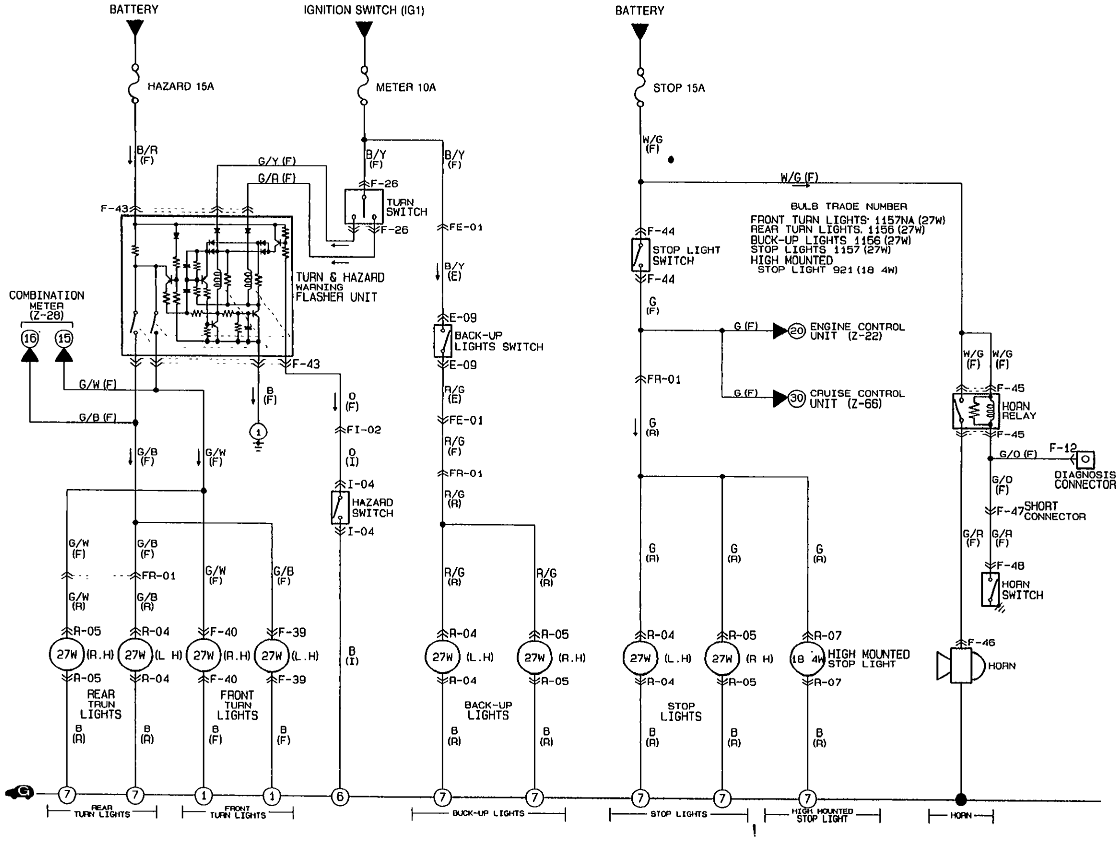
5. If not as specified, replace the retractor relay.



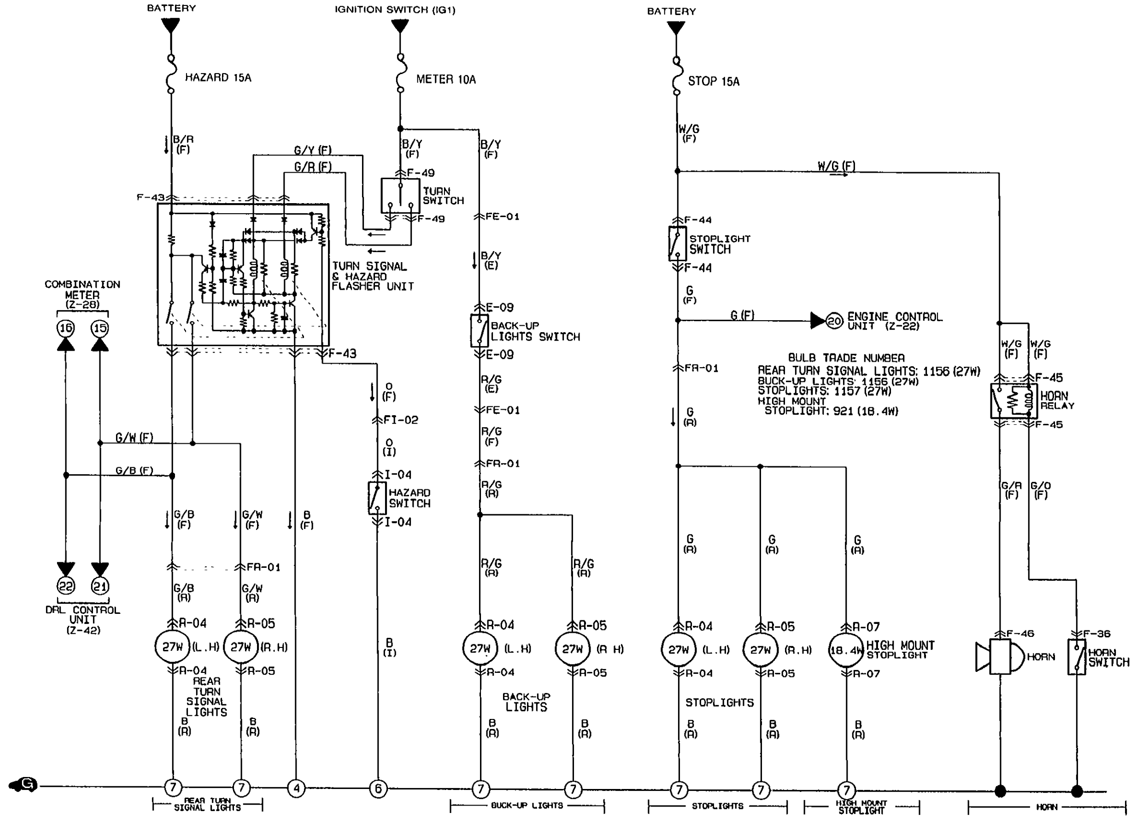
05U0TX-117

STOPLIGHTS
Circuit Diagram

[FOR USA]


BATTERY
HAZARD 15A
IGNITION SWITCH (IG1)
METER 10A
BATTERY
STOP 15A
B/R (F)
G/Y (F)
G/R (F)
B/Y (F)
F-26
TURN SWITCH
F-43
TURN & HAZARD WARNING FLASHER UNIT
FE-01
B/Y (E)
E-09
BACK-UP LIGHTS SWITCH
COMBINATION METER (Z-28)
16
15
G/W (F)
G/B (F)
B (F)
O (F)
FI-02
O (I)
I-04
HAZARD SWITCH
R/G (E)
R/G (F)
FR-01
R/G (R)
W/G (F)
F-44
STOP LIGHT SWITCH
G (F)
G (F)
20 ENGINE CONTROL UNIT (Z-22)
30 CRUISE CONTROL UNIT (Z-66)
G (R)
BULB TRADE NUMBER
FRONT TURN LIGHTS· 1157NA (27W)
REAR TURN LIGHTS. 1156 (27W)
BUCK-UP LIGHTS 1156 (27W)
STOP LIGHTS 1157 (27W)
HIGH MOUNTED STOP LIGHT 921 (18 4W)
W/G (F)
F-45
HORN RELAY
G/O (F)
F-12
DIAGNOSIS CONNECTOR
F-47 SHORT CONNECTOR
G/R (F)
F-48
HORN SWITCH
F-46
HORN
R-05
R-04
F-40
F-39
27W (R.H)
27W (L H)
27W (R.H)
27W (L.H)
REAR TRUN LIGHTS
FRONT TURN LIGHTS
B (I)
27W (L.H)
27W (R.H)
BACK-UP LIGHTS
27W (L.H)
27W (R H)
18 4W HIGH MOUNTED STOP LIGHT
R-07
STOP LIGHTS
B (R)
B (F)
7
1
6
REAR TURN LIGHTS
FRONT TURN LIGHTS
BUCK-UP LIGHTS
STOP LIGHTS
HIGH MOUNTED STOP LIGHT
HORN

[FOR CANADA]

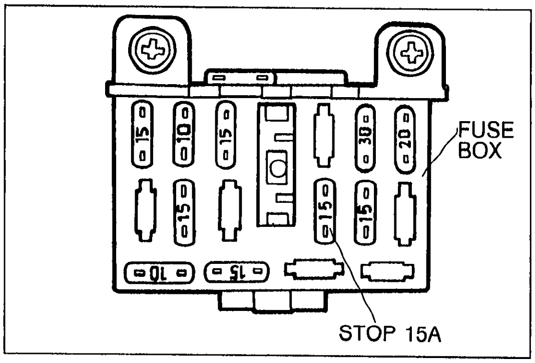

BATTERY
HAZARD 15A
IGNITION SWITCH (IG1)
METER 10A
BATTERY
STOP 15A
B/R (F)
G/Y (F)
G/R (F)
B/Y (F)
F-49
TURN SWITCH
F-43
TURN SIGNAL & HAZARD FLASHER UNIT
FE-01
B/Y (E)
E-09
BACK-UP LIGHTS SWITCH
COMBINATION METER (Z-28)
16
15
O (F)
FI-02
O (I)
I-04
HAZARD SWITCH
G/W (F)
G/B (F)
G/B (F)
G/W (F)
B (F)
FR-01
G/B (R)
G/W (R)
22
21
DRL CONTROL UNIT (Z-42)
R/G (E)
R/G (F)
R/G (R)
W/G (F)
F-44
STOPLIGHT SWITCH
G (F)
G (F)
20 ENGINE CONTROL UNIT (Z-22)
BULB TRADE NUMBER
REAR TURN SIGNAL LIGHTS: 1156 (27W)
BUCK-UP LIGHTS· 1156 (27W)
STOPLIGHTS: 1157 (27W)
HIGH MOUNT STOPLIGHT: 921 (18.4W)
W/G (F)
F-45
HORN RELAY
G/R (F)
G/O (F)
G (R)
R-04
R-05
R-07
27W (L.H)
27W (R.H)
REAR TURN SIGNAL LIGHTS
B (I)
27W (L.H)
27W (R H)
BACK-UP LIGHTS
27W (L.H)
27W (R.H)
18.4W HIGH MOUNT STOPLIGHT
STOPLIGHTS
F-46
HORN
F-36
HORN SWITCH
B (R)
7
4
6
REAR TURN SIGNAL LIGHTS
BUCK-UP LIGHTS
STOPLIGHTS
HIGH MOUNT STOPLIGHT
HORN

05U0TX-118

Troubleshooting

Symptom: Stoplights do not operate (all).

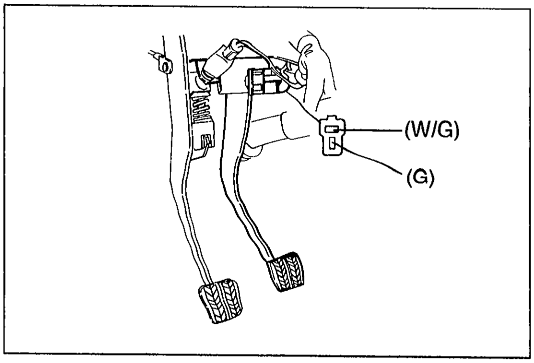
05U0TX-119



05U0TX-120

Step 1

Check STOP 15A fuse in the fuse box.
If the fuse is burned, replace it. Check and repair the wire harness, if necessary.
If the fuse is OK, go to Step 2.

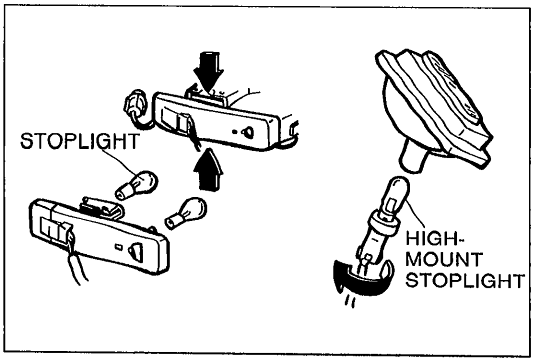


05U0TX-121

Step 2

Measure the voltage at the following terminal-wires of the stoplight switch connector.

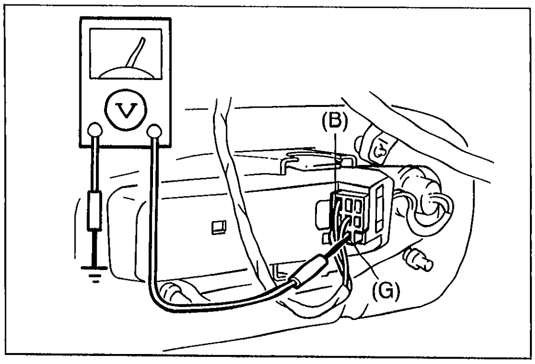
Inspection condition	Wire	Voltage	Action
Constant	(W/G)	12V	Next check wire (G)
		0V	Repair wire (W/G) (STOP 15A fuse—Stoplight switch)
Brake pedal depressed	(G)	12V	Go to Step 3
		0V	Check stoplight switch



05U0TX-122

Step 3

Check the stoplight bulbs.
If a bulb is burned replace it.
If the bulbs are OK, go to Step 4.



05U0TX-123

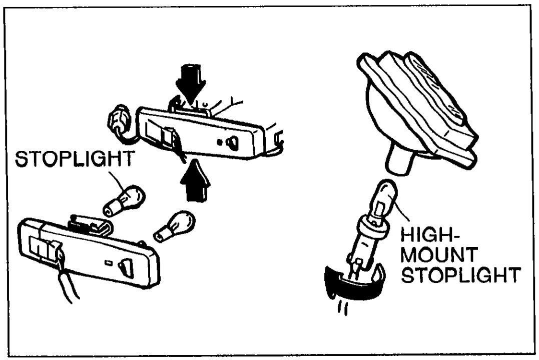
Step 4

Measure the voltage at the following terminal-wires of the right and left stoplight connectors.

Inspection condition	Wire	Voltage	Action
Brake pedal depressed	(G)	12V	Next check wire (B)
		0V	Repair wire (G) (Stoplight switch—Stoplight)
	(B)	12V	Repair ground wire (B)
		0V	Check for poor connection of connectors

Symptom: Stoplights does not operate (one only).

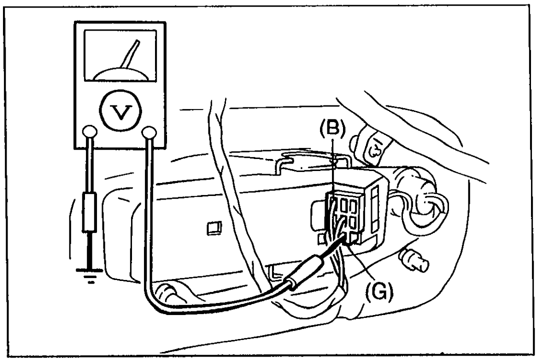
05U0TX-124


STOPLIGHT
HIGH-MOUNT STOPLIGHT

05U0TX-125

Step 1

Check the stoplight bulb of the faulty side.
If a bulb is burned replace it.
If the bulb is OK, go to Step 2.



05U0TX-126

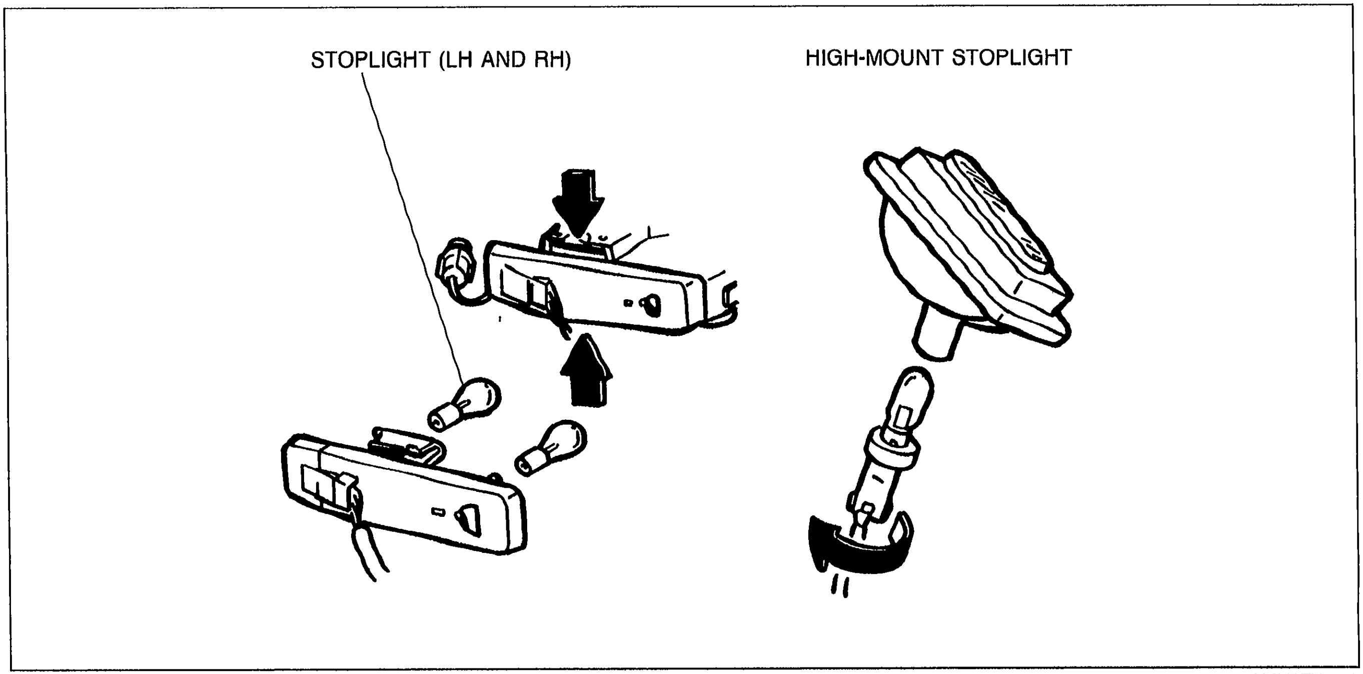
Step 2

Measure the voltage at the following terminal-wires of the faulty stoplight connector.

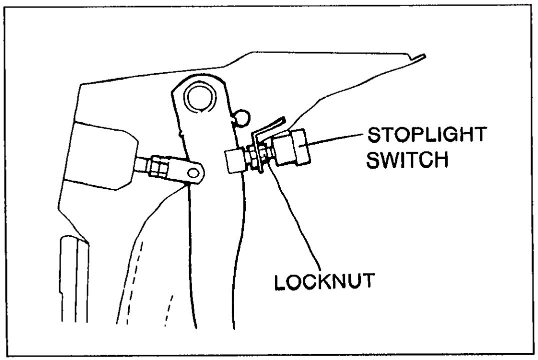
Inspection condition	Wire	Voltage	Action
Brake pedal depressed	(G)	12V	Next check wire (B)
		0V	Repair wire (G) (Stoplight switch—Stoplight)
	(B)	12V	Repair ground wire (B)
		0V	Check for poor connection of connectors

Removal / Installation

Remove and install as shown in the figure.


STOPLIGHT (LH AND RH)
HIGH-MOUNT STOPLIGHT

9MU0TX-158



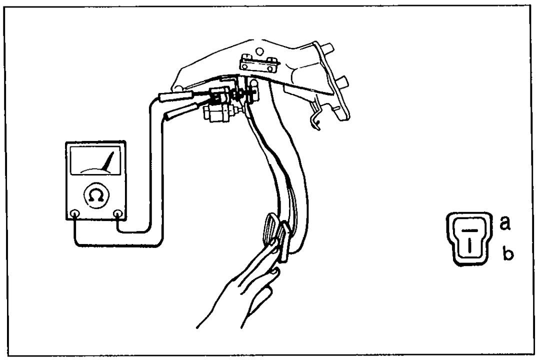
05U0TX-127

Adjustment

Stoplight switch

1. Adjust the brake pedal height. (Refer to Section P.)
2. Disconnect the stoplight switch connector.
3. Loosen the stoplight switch locknut.
4. Turn the stoplight switch until it contacts the pedal arm. Turn an additional 1/2 turn.
5. Tighten the locknut.

Locknut tightening torque:
14—18 N·m (1.4—1.8 m-kg, 120—156 in-lb)



05U0TX-128

Inspection

Stoplight switch

1. Disconnect the stoplight switch connector.
2. Check continuity between terminals of the switch.

Inspection condition	Terminal	
	a	b
Brake pedal depressed	○—	—○
Brake pedal released		

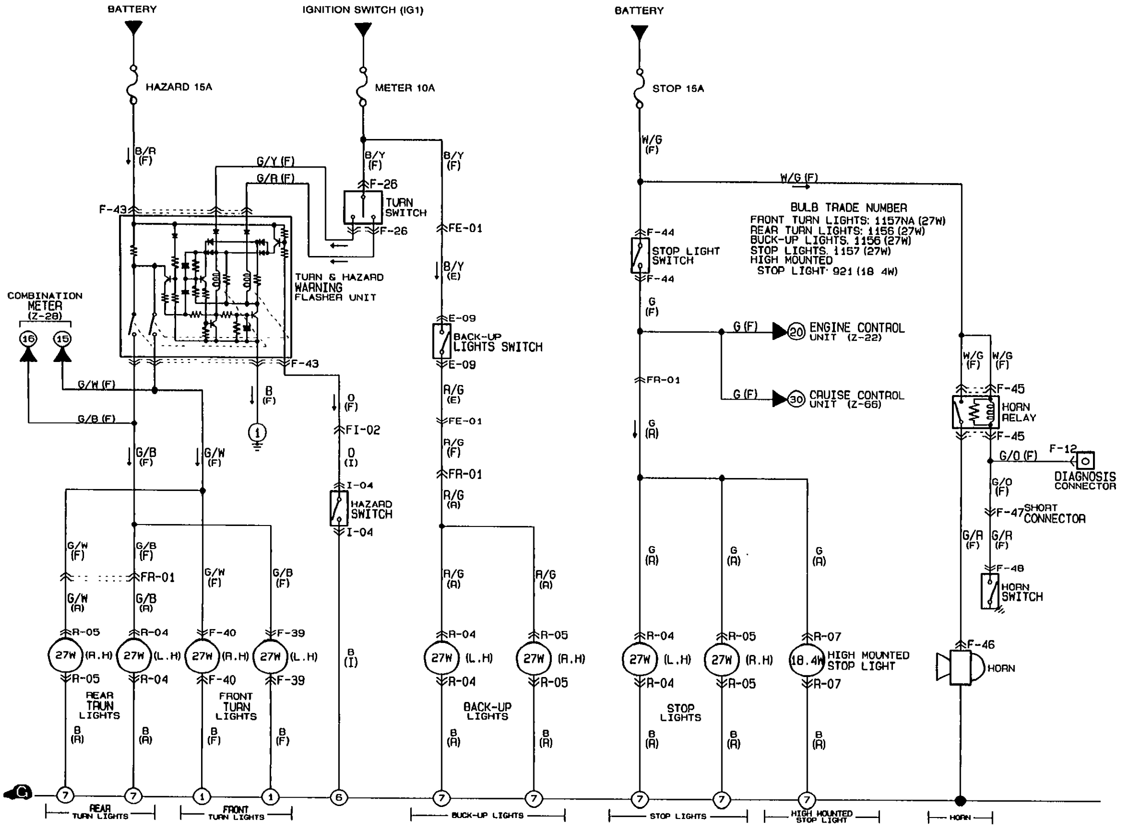
○——○: Indicates continuity

3. If not as specified, replace the stoplight switch.

TURN AND HAZARD WARNING LIGHTS

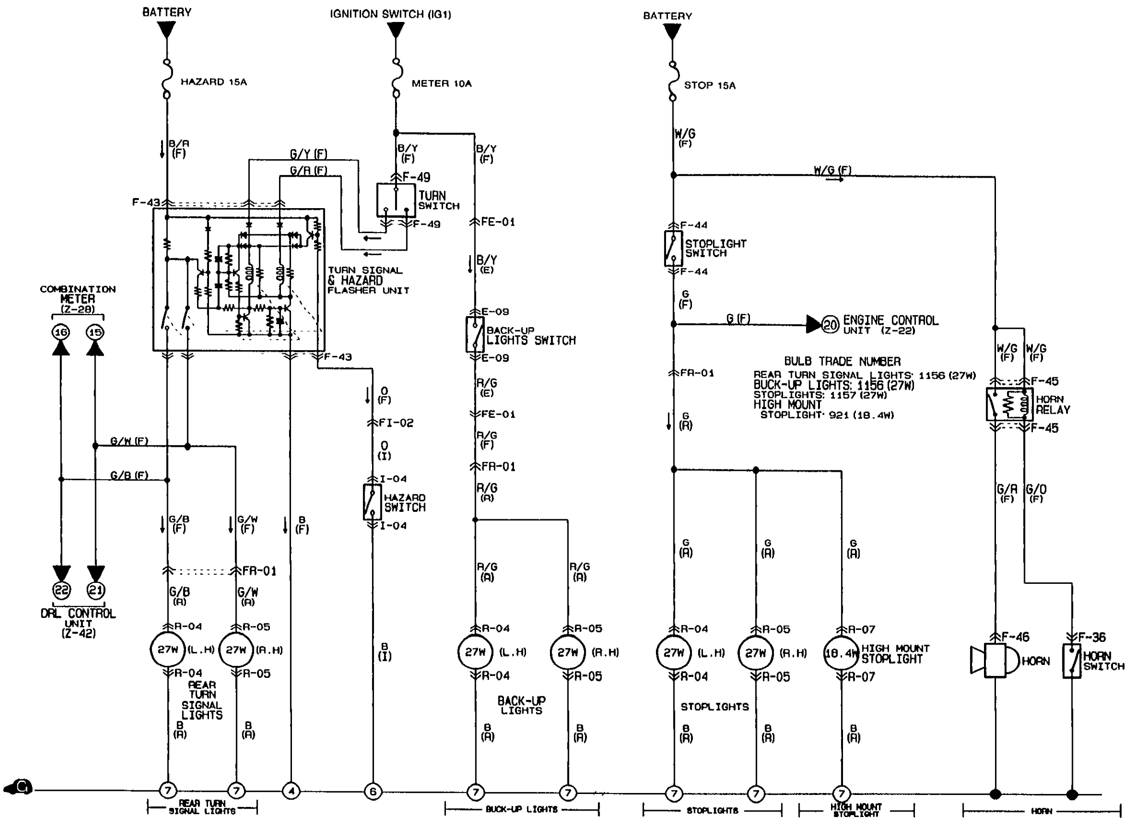
Circuit Diagram

[FOR USA]


BATTERY
IGNITION SWITCH (IG1)
BATTERY
HAZARD 15A
METER 10A
STOP 15A
B/R (F)
G/Y (F)
G/R (F)
B/Y (F)
F-26
TURN SWITCH
F-43
TURN & HAZARD WARNING FLASHER UNIT
FE-01
B/Y (E)
E-09
BACK-UP LIGHTS SWITCH
COMBINATION METER (Z-28)
16
15
G/W (F)
G/B (F)
B (F)
O (F)
FI-02
O (I)
I-04
HAZARD SWITCH
R/G (E)
FE-01
R/G (F)
FR-01
R/G (R)
W/G (F)
F-44
STOP LIGHT SWITCH
G (F)
ENGINE CONTROL UNIT (Z-22)
CRUISE CONTROL UNIT (Z-66)
G (R)
F-45
HORN RELAY
G/O (F)
F-12
DIAGNOSIS CONNECTOR
F-47 SHORT CONNECTOR
G/R (F)
F-48
HORN SWITCH
F-46
HORN
R-05
R-04
F-40
F-39
27W (R.H)
27W (L.H)
18.4W HIGH MOUNTED STOP LIGHT
R-07
REAR TRUN LIGHTS
FRONT TURN LIGHTS
BACK-UP LIGHTS
STOP LIGHTS
B (R)
B (F)
B (I)
7
1
6
REAR TURN LIGHTS
FRONT TURN LIGHTS
BUCK-UP LIGHTS
STOP LIGHTS
HIGH MOUNTED STOP LIGHT
HORN

BULB TRADE NUMBER
FRONT TURN LIGHTS: 1157NA (27W)
REAR TURN LIGHTS: 1156 (27W)
BUCK-UP LIGHTS. 1156 (27W)
STOP LIGHTS. 1157 (27W)
HIGH MOUNTED
STOP LIGHT· 921 (18 4W)

[FOR CANADA]


BATTERY
IGNITION SWITCH (IG1)
BATTERY
HAZARD 15A
METER 10A
STOP 15A
B/R (F)
G/Y (F)
G/R (F)
B/Y (F)
F-49
TURN SWITCH
F-43
TURN SIGNAL & HAZARD FLASHER UNIT
FE-01
B/Y (E)
E-09
BACK-UP LIGHTS SWITCH
COMBINATION METER (Z-28)
16
15
G/W (F)
G/B (F)
B (F)
O (F)
FI-02
O (I)
I-04
HAZARD SWITCH
FR-01
G/B (R)
G/W (R)
22
21
DRL CONTROL UNIT (Z-42)
R/G (E)
FE-01
R/G (F)
FR-01
R/G (R)
W/G (F)
F-44
STOPLIGHT SWITCH
G (F)
ENGINE CONTROL UNIT (Z-22)
G (R)
F-45
HORN RELAY
G/R (F)
G/O (F)
F-46
HORN
F-36
HORN SWITCH
R-04
R-05
R-07
27W (L.H)
27W (R.H)
18.4W HIGH MOUNT STOPLIGHT
REAR TURN SIGNAL LIGHTS
BACK-UP LIGHTS
STOPLIGHTS
B (R)
B (I)
7
4
6
REAR TURN SIGNAL LIGHTS
BUCK-UP LIGHTS
STOPLIGHTS
HIGH MOUNT STOPLIGHT
HORN

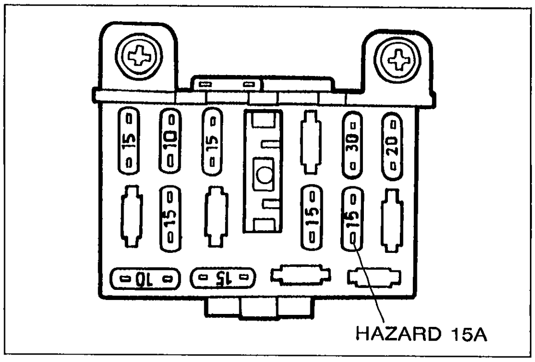
BULB TRADE NUMBER
REAR TURN SIGNAL LIGHTS· 1156 (27W)
BUCK-UP LIGHTS: 1156 (27W)
STOPLIGHTS: 1157 (27W)
HIGH MOUNT
STOPLIGHT· 921 (18.4W)

05U0TX-129

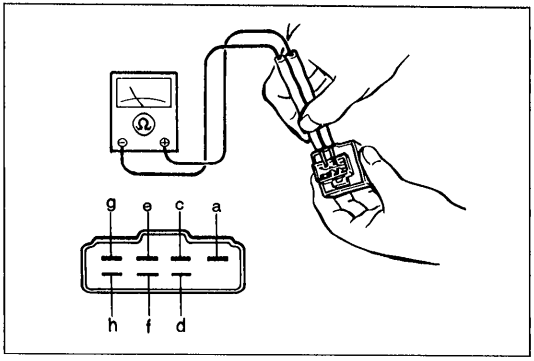
Troubleshooting

Symptom: Turn and hazard warning lights do not operate (U.S. spec.)

05U0TX-130



05U0TX-301



05U0TX-302

Step 1

1. Check HAZARD 15A fuse in the fuse box.
2. If the fuse is burned replace it. Check and repair the wire harness, if necessary.
3. If the fuse is OK, go to Step 2.

Step 2 — Check turn and hazard warning flasher unit

1. Remove the turn and hazard warning flasher unit.
2. Check continuity between terminals of the unit with an ohmmeter.

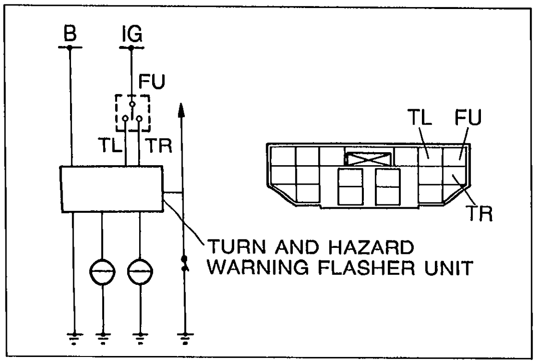
Note

- **Set the ohmmeter to × 1000Ω range.**

Terminal + | −	Continuity	Terminal + | −	Continuity	Terminal + | −	Continuity
a — c	X	d — e	X	f — g	X
a — d	X	d — f	X	f — h	X
a — e	O	d — g	X	g — a	X
a — f	O	d — h	X	g — c	X
a — g	X	e — a	X	g — d	X
a — h	X	e — c	X	g — e	X
c — a	O	e — d	X	g — f	X
c — d	O	e — f	X	g — h	X
c — e	O	e — g	X	h — a	O
c — f	O	e — h	X	h — c	O
c — g	O	f — a	X	h — d	O
c — h	O	f — c	X	h — e	O
d — a	X	f — d	X	h — f	O
d — c	X	f — e	X	h — g	O

O: Indicates continuity X: No continuity

3. If not as specified, replace the flasher unit.
4. If the flasher unit is OK, reconnect the connector and go to Step 3.



05U0TX-131

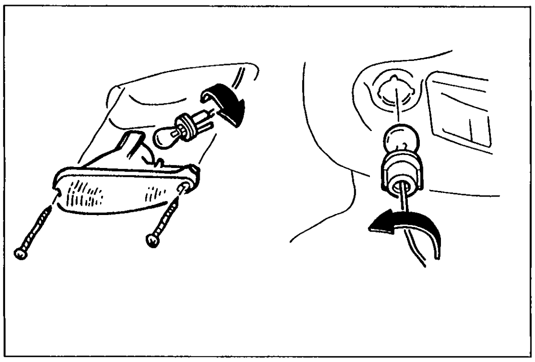
Step 3

1. Remove the knee protector, then disconnect the turn signal switch connector.
2. Check continuity between terminals of the switch.

Terminal / Position	FU	TL	TR
Left	○—	—○	
Right	○—	—	—○

○—○: Indicates continuity

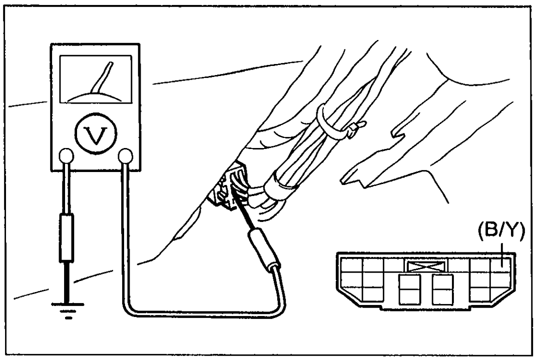
3. If not as specified, replace the turn signal switch.
4. If the turn signal switch is OK, reconnect the connector and go to Step 4.



05U0TX-303

Step 4

1. Check the bulbs.
2. If a bulb is burned, replace it.
3. If the bulbs are OK, go to Step 5.

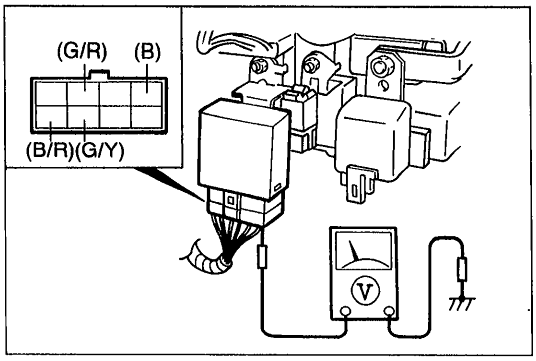


05U0TX-304

Step 5

1. Turn the ignition switch ON.
2. Measure the voltage at terminal-wire (B/Y) of the turn signal switch connector.

Wire	Voltage	Action
(B/Y)	12V	Go to Step 6
	0V	Repair wiring harness (HAZARD 15A fuse — Turn signal switch)

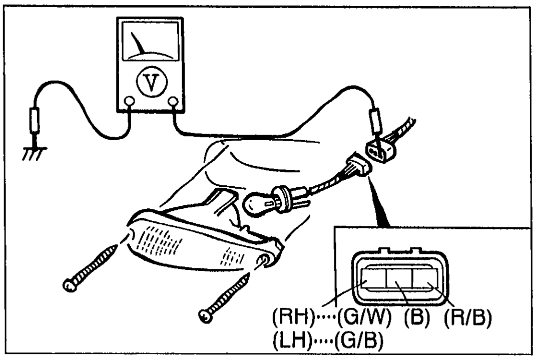


05U0TX-132

Step 6

Measure the voltage at the terminal-wires of the turn and hazard warning flasher unit connector.

Wire	Condition	Voltage	Action
(B)	Constant	12V	Repair wire harness (Flasher unit — Body ground)
		0V	Next, check wire (G/R)
(G/R)	Turn signal switch right position	12V	Next, check wire (G/Y)
		0V	Repair wire harness (Turn signal switch — Flasher unit)
(G/Y)	Turn signal switch left position	12V	Next, check wire (B/R)
		0V	Repair wire harness (Turn signal switch — Flasher unit)
(B/R)	Constant	12V	Go to Step 7
		0V	Repair wire harness (HAZARD 15A fuse — Flasher unit)



05U0TX-305

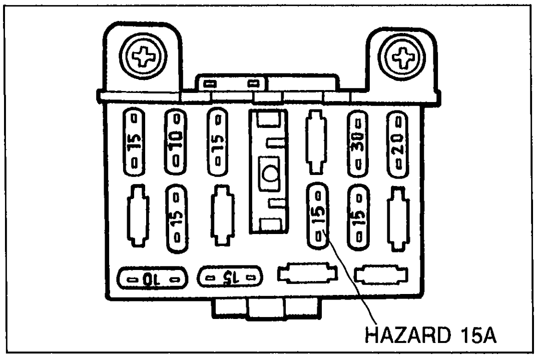
Step 7

1. Disconnect the turn signal light connectors.
2. Measure the voltage at the terminal-wires of the turn signal light connectors as shown.

Light	Wire	Condition	Voltage	Action
Front RH	(G/W)	Turn signal switch right position	12V	Repair wire harness (Bulb — Body ground)
			0V	Repair wire harness (Flasher unit — Bulb)
Rear RH			12V	Repair wire harness (Bulb — Body ground
			0V	Repair wire harness (Flasher unit — Bulb)
Front LH	(G/B)	Turn signal switch left position	12V	Repair wire harness (Bulb — Body Ground)
			0V	Repair wire harness (Flasher unit — Bulb)
Rear LH			12V	Repair wire harness (Bulb — Body ground)
			0V	Repair wire harness (Flasher unit — Bulb)

Symptom: Turn and hazard warning lights do not operate (Canada spec.).

05U0TX-133



05U0TX-306

Step 1
1. Check HAZARD 15A fuse in the fuse box.
2. If the fuse is burned, replace it. Check and repair the wire harness, if necessary.
3. If the fuse is OK, go to Step 2.

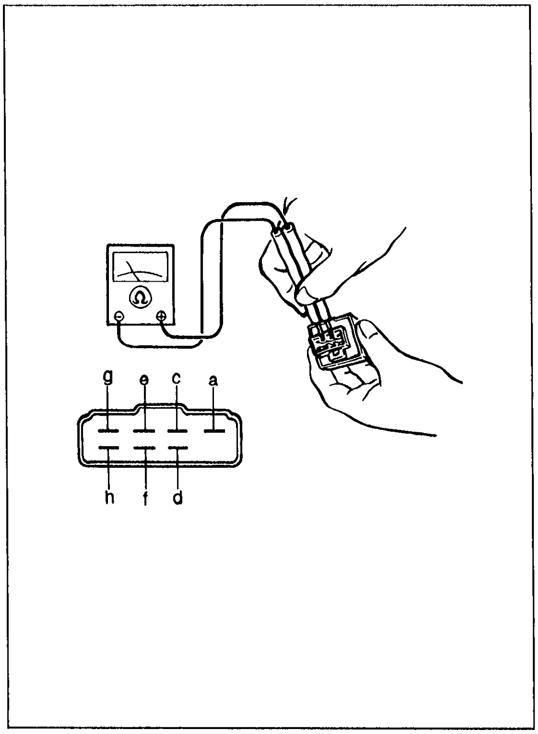
Step 2 — Check turn and hazard warning flasher unit
1. Remove the turn and hazard warning flasher unit.
2. Check continuity between terminals of the unit with an ohmmeter.

Note
- **Set the ohmmeter to × 1000Ω range.**

Terminal + | −	Continuity	Terminal + | −	Continuity	Terminal + | −	Continuity
a — c	X	d — e	X	f — g	X
a — d	X	d — f	X	f — h	X
a — e	O	d — g	X	g — a	X
a — f	O	d — h	X	g — c	X
a — g	X	e — a	X	g — d	X
a — h	X	e — c	X	g — e	X
c — a	O	e — d	X	g — f	X
c — d	O	e — f	X	g — h	X
c — e	O	e — g	X	h — a	O
c — f	O	e — h	X	h — c	O
c — g	O	f — a	X	h — d	O
c — h	O	f — c	X	h — e	O
d — a	X	f — d	X	h — f	O
d — c	X	f — e	X	h — g	O

O: Indicates continuity X: No continuity

3. If not as specified, replace the flasher unit.
4. If the flasher unit is OK, reconnect the connector and go to Step 3.



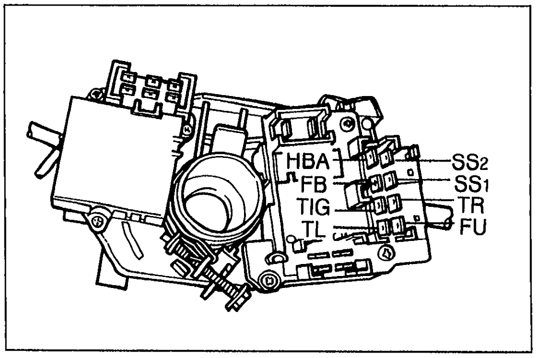
05U0TX-307

Step 3 — Check turn signal switch
1. Remove the column cover, then disconnect the turn signal switch connector.
2. Check for continuity between terminals of the switch.

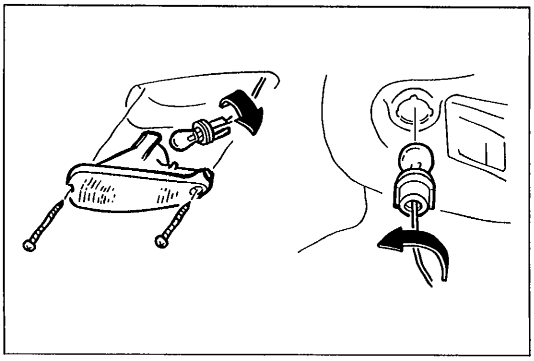
Terminal \ Position	FU	TL	TR
Left	O	O	
Right	O		O

O——O: Indicates continuity

3. If not as specified, replace the turn signal switch.
4. If the turn signal switch is OK, reconnect the connector and go to Step 4.



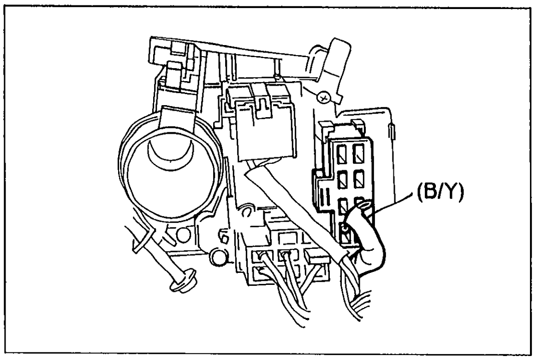
9MU0TX-166



05U0TX-308

Step 4

1. Check the bulbs.
2. If a bulb is burned, replace it.
3. If the bulbs are OK, go to Step 5.

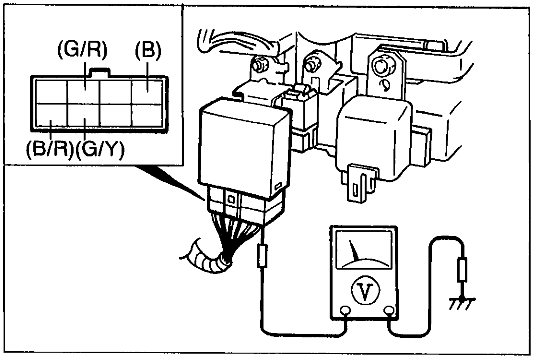


05U0TX-309

Step 5

1. Turn the ignition switch ON.
2. Measure the voltage at terminal-wire (B/Y) of the turn signal switch connector.

Wire	Voltage	Action
(B/Y)	12V	Go to Step 6
	0V	Repair wire harness (HAZARD 15A fuse — Turn signal switch)

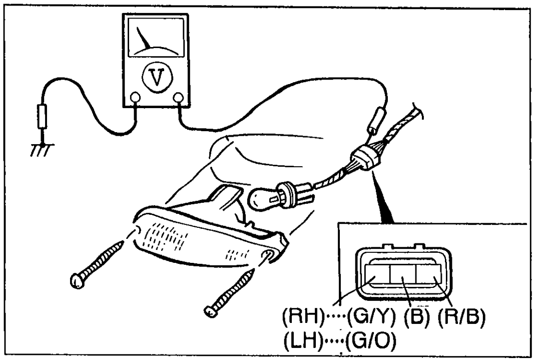


05U0TX-134

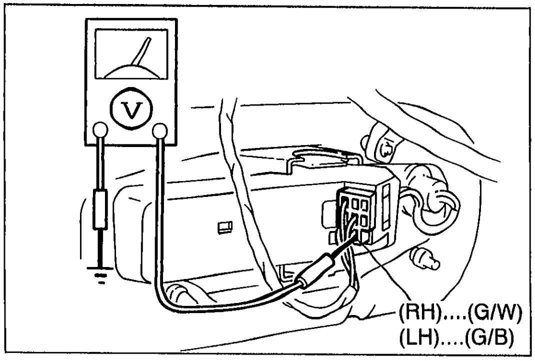
Step 6

Measure the voltage at the terminal-wires of the turn and hazard warning flasher unit connector.

Wire	Condition	Voltage	Action
(B)	Constant	12V	Repair wire harness (Flasher unit — Body ground)
		0V	Next, check wire (G)
(G/R)	Turn signal switch right position	12V	Next, check wire (G/R)
		0V	Repair wire harness (Turn signal switch — Flasher unit)
(G/Y)	Turn signal switch left position	12V	Next, check wire (Y/G)
		0V	Repair wire harness (Turn signal switch — Flasher unit)
(B/R)	Constant	12V	Go to Step 7
		0V	Repair wire harness (HAZARD 15A fuse — Flasher unit)



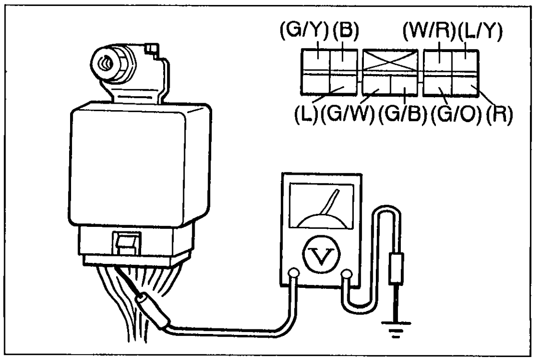
05U0TX-135



Step 7

Measure the voltage at the terminal-wires of the turn signal light connectors as shown.

Light	Wire	Condition	Voltage	Action
Front RH	(G/Y)	Turn signal switch right position	12V	Repair wire harness (Bulb — Body ground)
			0V	Go to Step 8
Rear RH	(G/W)		12V	Repair wire harness (Bulb — Body ground
			0V	Repair wire harness (Flasher unit — Bulb)
Front LH	(G/O)	Turn signal switch left position	12V	Repair wire harness (Bulb — Body Ground)
			0V	Go to Step 8
Rear LH	(G/B)		12V	Repair wire harness (Bulb — Body ground)
			0V	Repair wire harness (Flasher unit — Bulb)



05U0TX-136

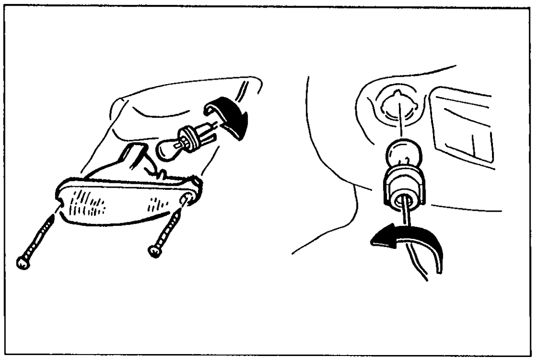
Step 8

Measure the voltage at the terminal-wires of the DRL connector as shown.

Wire	Condition	Voltage	Action
(G/W)	Turn signal switch right position	12V	Next, check wire (G/Y)
		0V	Repair wire (G/W) (Flasher unit—DRL unit)
(G/Y)		12V	Repair wire (G/Y) (DRL unit—Bulb)
		0V	Check DRL unit (Refer to page T–18)
(G/B)	Turn signal switch left position	12V	Next, check wire (G/O)
		0V	Repair wire (G/O) (Flasher unit—DRL unit)
(G/O)		12V	Repair wire (G/O) (DRL unit—Bulb)
		0V	Check DRL unit (Refer to page T–18)

Symptom: Turn signal(s) flashes rapidly.

9MU0TX-175



9MU0TX-176

Remedy

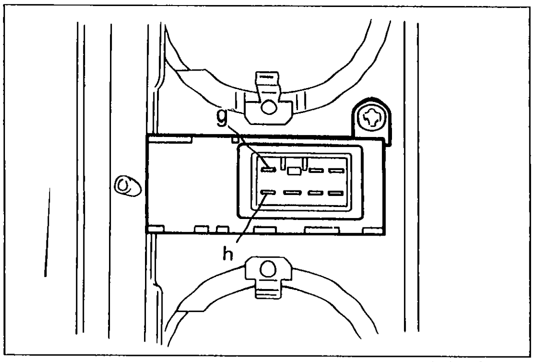
Check the bulbs and the wiring harness between each bulb and the body ground (rapidly flashing side).

Note

- **Rapid flashing is a flasher unit function to warn of a bad bulb or an open circuit.**

Symptom: Hazard warning function does not operate. (Turn signals function normally.)

05U0TX-310



05U0TX-137

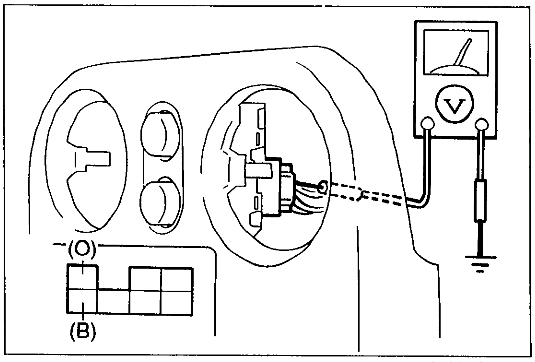
Step 1 — Check hazard warning switch.

1. Remove the hazard warning switch.
2. Check continuity between terminals of the switch.

Switch	Terminal	
	g	h
ON	O————	————O
OFF		

O——O: Indicates continuity

3. If not as specified, replace the right cluster switch assembly.
4. If the cluster switch is OK, go to Step 2.

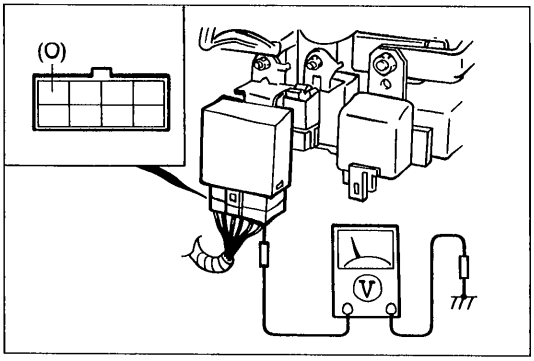


05U0TX-272

Step 2

Measure the voltage at the terminal-wires of the hazard warning switch connector as shown.

Wire	Voltage	Action
(O)	12V	Next, check wire (B)
	0V	Go to Step 3
(B)	12V	Repair wire harness (Hazard warning switch — Body ground)
	0V	Replace turn and hazard flasher unit



05U0TX-138

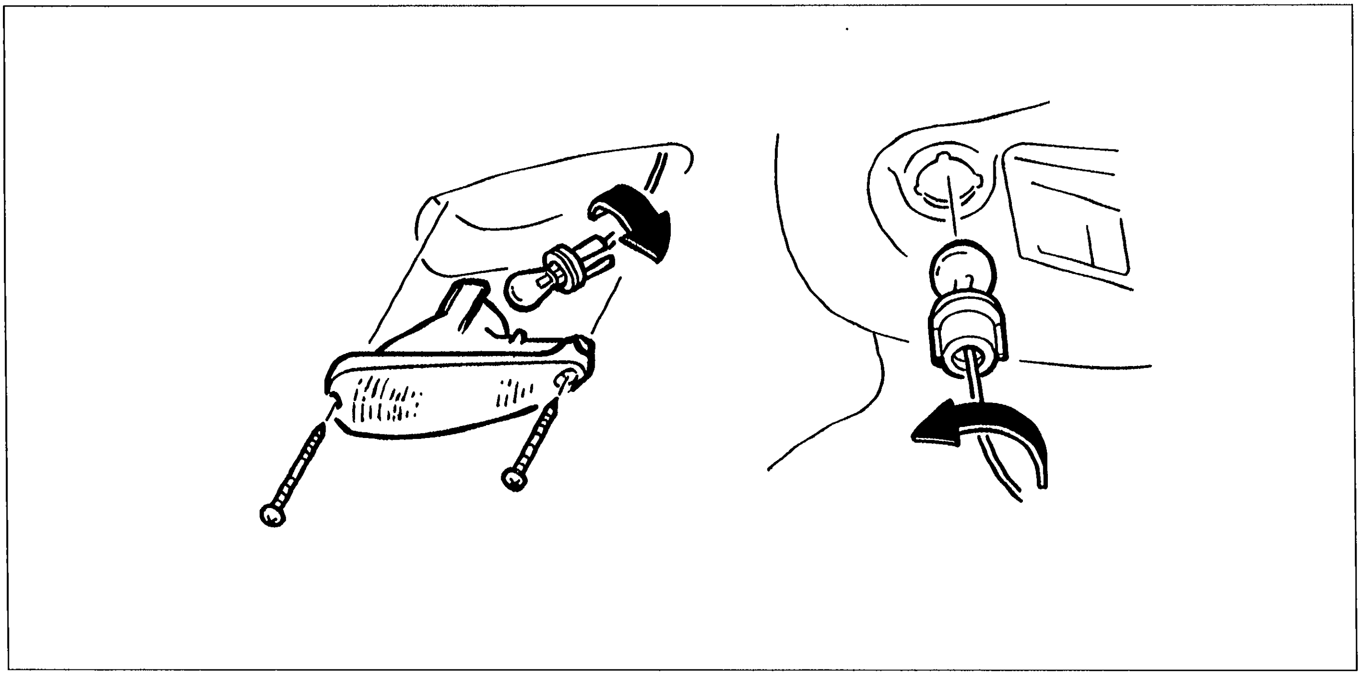
Step 3

Check the voltage at terminal-wire (O) of the turn and hazard flasher unit connector.

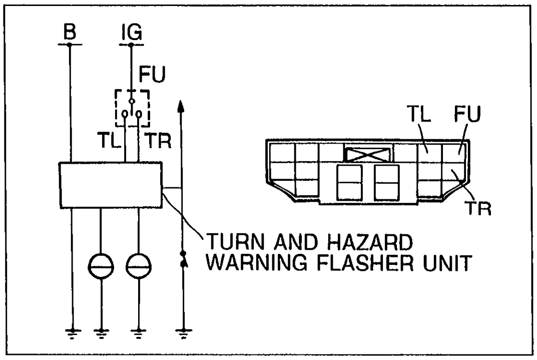
Wire	Voltage	Action
(O)	12V	Repair wire harness (Flasher unit — Hazard warning switch)
	0V	Replace turn and hazard flasher unit

Removal / Installation

Remove and install as shown in the figure.



05U0TX-139



05U0TX-140

Inspection

Turn signal switch

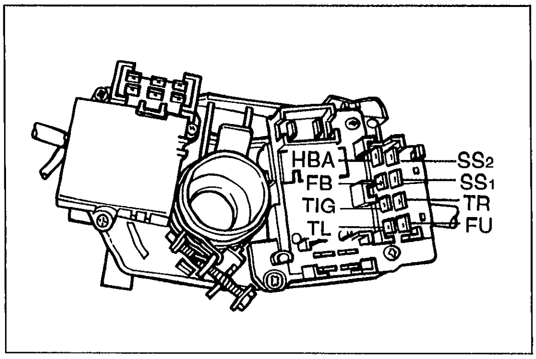
(U.S. spec.)

1. Remove the knee protector.
2. Disconnect the combination switch connector.
3. Check continuity between terminals of the switch.

Switch	Terminal		
	FU	TL	TR
Left	○—	—○	
Right	○—	—	—○

○—○: Indicates continuity

4. If not as specified, replace the combination switch as an assembly.



05U0TX-141

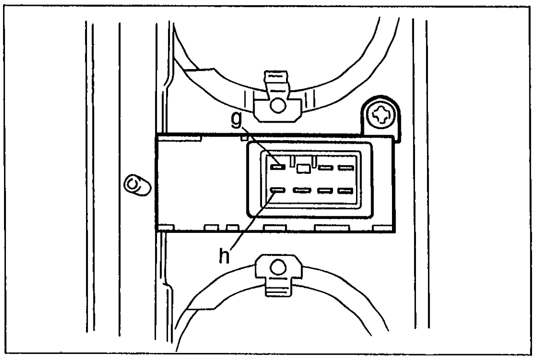
(Canada spec.)

1. Remove the column cover, then disconnect the turn signal switch connector.
2. Check for continuity between terminals of the switch.

Terminal \ Position	FU	TL	TR
Left	○—	—○	
Right	○—	—	—○

○—○: Indicates continuity

3. If not as specified, replace the turn signal switch.



05U0TX-142

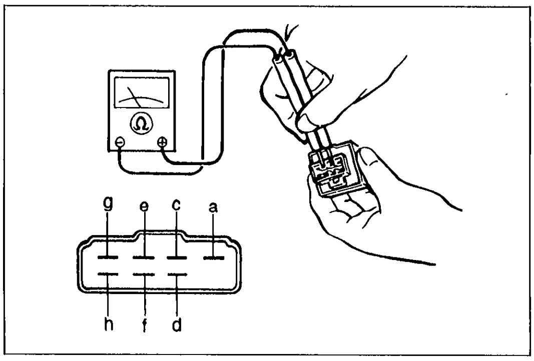
Hazard warning switch

1. Remove the hazard switch.
2. Check continuity between terminals of the switch.

Switch	Terminal	
	g	h
On	○—	—○
Off		

○—○: Indicates continuity

3. If not as specified, replace the hazard switch and retractor switch as an assembly.



05U0TX-143

Turn and hazard warning flasher unit

1. Check continuity between terminals of the flasher unit.

Note

- **Set the ohmmeter to ×1000Ω range.**

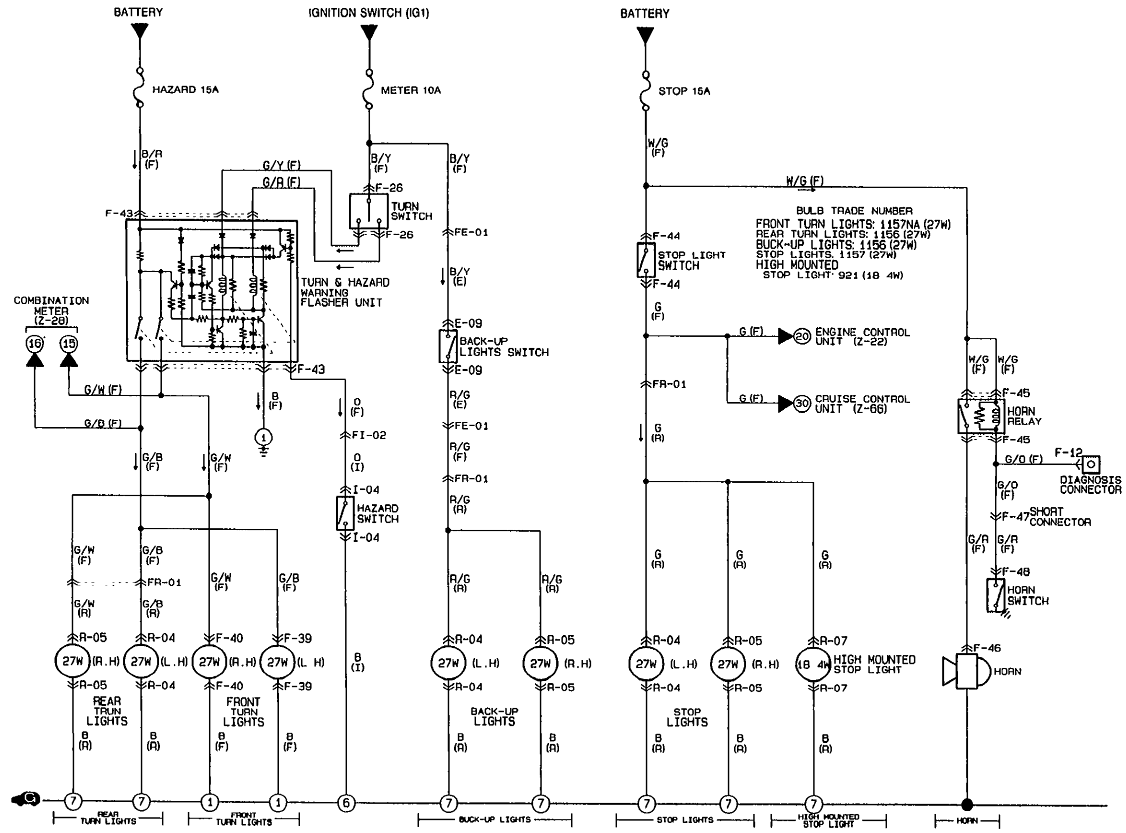
Terminal		Continuity	Terminal		Continuity	Terminal		Continuity
+	−		+	−		+	−	
a	c	X	d	e	X	f	g	X
a	d	X	d	f	X	f	h	X
a	e	○	d	g	X	g	a	X
a	f	○	d	h	X	g	c	X
a	g	X	e	a	X	g	d	X
a	h	X	e	c	X	g	e	X
c	a	○	e	d	X	g	f	X
c	d	○	e	f	X	g	h	X
c	e	○	e	g	X	h	a	○
c	f	○	e	h	X	h	c	○
c	g	○	f	a	X	h	d	○
c	h	○	f	c	X	h	e	○
d	a	X	f	d	X	h	f	○
d	c	X	f	e	X	h	g	○

○: Indicates continuity X: No continuity

2. If not as specified, replace the flasher unit.

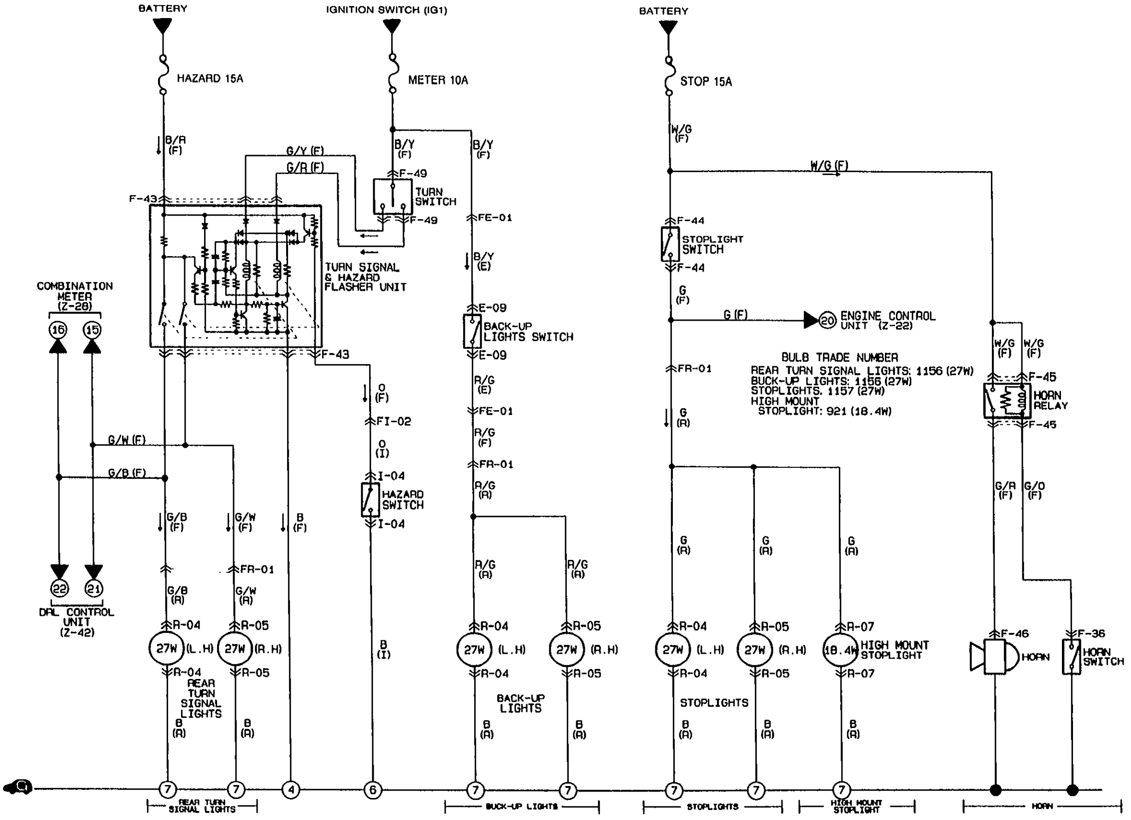
BACK-UP LIGHTS
Circuit Diagram

[FOR USA]


BATTERY
HAZARD 15A
IGNITION SWITCH (IG1)
METER 10A
BATTERY
STOP 15A
B/R (F)
G/Y (F)
G/R (F)
B/Y (F)
F-26
TURN SWITCH
F-43
FE-01
TURN & HAZARD WARNING FLASHER UNIT
COMBINATION METER (Z-28)
16
15
G/W (F)
G/B (F)
B (E)
E-09
BACK-UP LIGHTS SWITCH
R/G (E)
R/G (F)
FR-01
R/G (R)
O (F)
FI-02
O (I)
I-04
HAZARD SWITCH
W/G (F)
F-44
STOP LIGHT SWITCH
G (F)
ENGINE CONTROL UNIT (Z-22)
CRUISE CONTROL UNIT (Z-66)
G (R)
F-45
HORN RELAY
G/O (F)
F-12
DIAGNOSIS CONNECTOR
F-47
SHORT CONNECTOR
G/R (F)
F-48
HORN SWITCH
F-46
HORN
R-05
R-04
F-40
F-39
27W (R.H)
27W (L.H)
REAR TRUN LIGHTS
FRONT TURN LIGHTS
BACK-UP LIGHTS
STOP LIGHTS
R-07
18 4W
HIGH MOUNTED STOP LIGHT
B (R)
B (F)
B (I)
7
1
6
REAR TURN LIGHTS
FRONT TURN LIGHTS
BUCK-UP LIGHTS
STOP LIGHTS
HIGH MOUNTED STOP LIGHT
HORN

BULB TRADE NUMBER
FRONT TURN LIGHTS: 1157NA (27W)
REAR TURN LIGHTS: 1156 (27W)
BUCK-UP LIGHTS: 1156 (27W)
STOP LIGHTS. 1157 (27W)
HIGH MOUNTED
STOP LIGHT· 921 (18 4W)

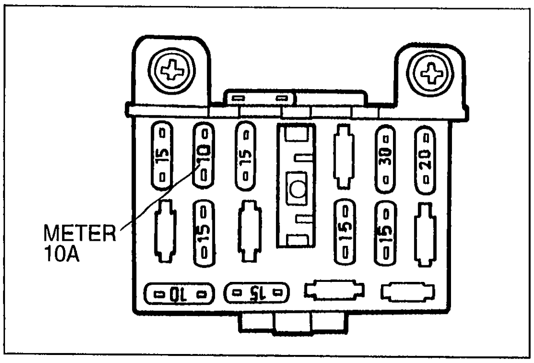
[FOR CANADA]


BATTERY
HAZARD 15A
IGNITION SWITCH (IG1)
METER 10A
BATTERY
STOP 15A
B/R (F)
G/Y (F)
G/R (F)
B/Y (F)
F-49
TURN SWITCH
F-43
FE-01
B/Y (E)
TURN SIGNAL & HAZARD FLASHER UNIT
COMBINATION METER (Z-28)
16
15
G/W (F)
G/B (F)
22
21
DRL CONTROL UNIT (Z-42)
E-09
BACK-UP LIGHTS SWITCH
R/G (E)
R/G (F)
FR-01
R/G (R)
O (F)
FI-02
O (I)
I-04
HAZARD SWITCH
W/G (F)
F-44
STOPLIGHT SWITCH
G (F)
ENGINE CONTROL UNIT (Z-22)
G (R)
F-45
HORN RELAY
G/R (F)
G/O (F)
F-46
HORN
F-36
HORN SWITCH
R-04
R-05
27W (L.H)
27W (R.H)
REAR TURN SIGNAL LIGHTS
BACK-UP LIGHTS
STOPLIGHTS
R-07
18.4W
HIGH MOUNT STOPLIGHT
B (R)
B (I)
B (F)
7
4
6
REAR TURN SIGNAL LIGHTS
BUCK-UP LIGHTS
STOPLIGHTS
HIGH MOUNT STOPLIGHT
HORN

BULB TRADE NUMBER
REAR TURN SIGNAL LIGHTS: 1156 (27W)
BUCK-UP LIGHTS: 1156 (27W)
STOPLIGHTS. 1157 (27W)
HIGH MOUNT
STOPLIGHT: 921 (18.4W)

Symptom: Back-up light(s) does not operate.

9MU0TX-185



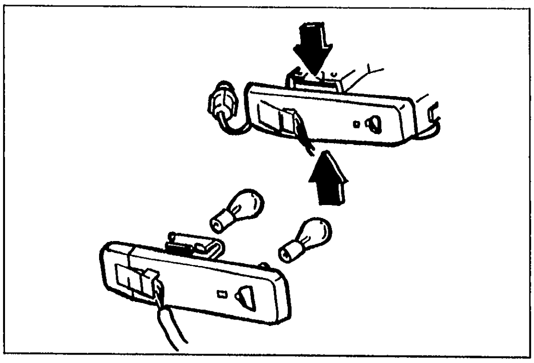
05U0TX-311

Step 1

Check METER 10A fuse.

If the fuse is burned, replace it. Check and repair the wire harness, if necessary.

If the fuse is OK, go to Step 2.



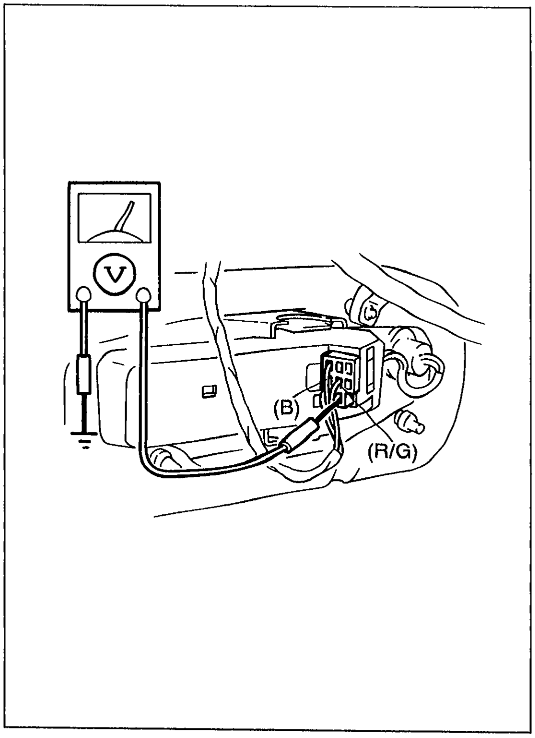
05U0TX-313

Step 2

Check the back-up light bulbs.

If a bulb is burned, replace it.

If the bulbs are OK, go to Step 3.

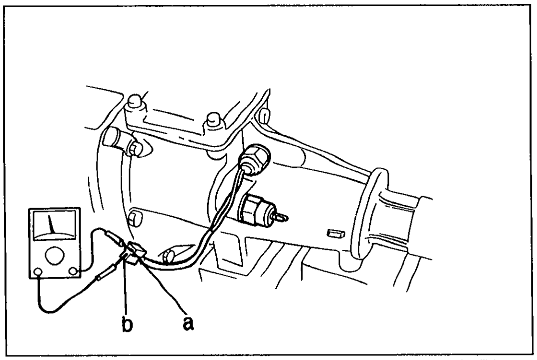


05U0TX-313

Step 3

1. Turn the ignition switch ON, and shift the transmission to reverse.
2. Measure the voltage at the terminal-wires of the back-up light connectors.

Back-up light	Wire	Voltage	Action
Left	(R/G)	12V	Next, check wire (B)
		0V	Go to Step 4
	(B)	12V	Repair ground wire (B)
		0V	Check for poor connection of back-up light connector
Right	(R/G)	12V	Next, check wire (B)
		0V	Go to Step 4
	(B)	12V	Repair ground wire (B)
		0V	Check for poor connection of back-up light connector



05U0TX-145

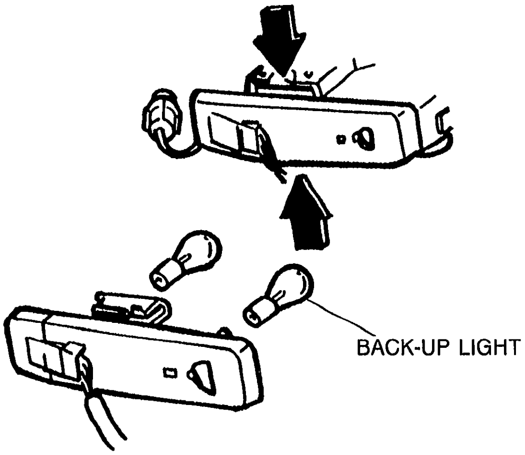
Step 4

1. Disconnect the back-up light switch connectors.
2. Check continuity between terminals of the switch with the transmission in reverse.

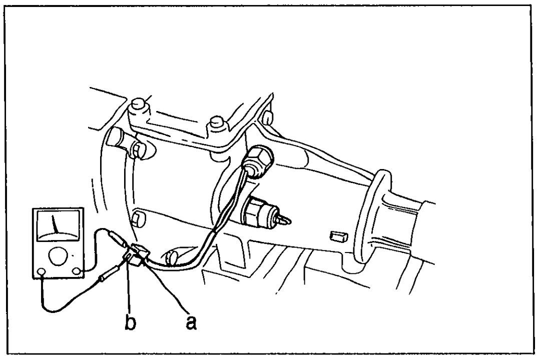
Continuity	Action
Yes	Repair wire harness (METER 10A fuse — Back-up light switch — Back-up light)
No	Replace switch

Removal / Installation

Remove and install as shown in the figure.



05U0TX-146



05U0TX-147

Inspection

Back-up light switch

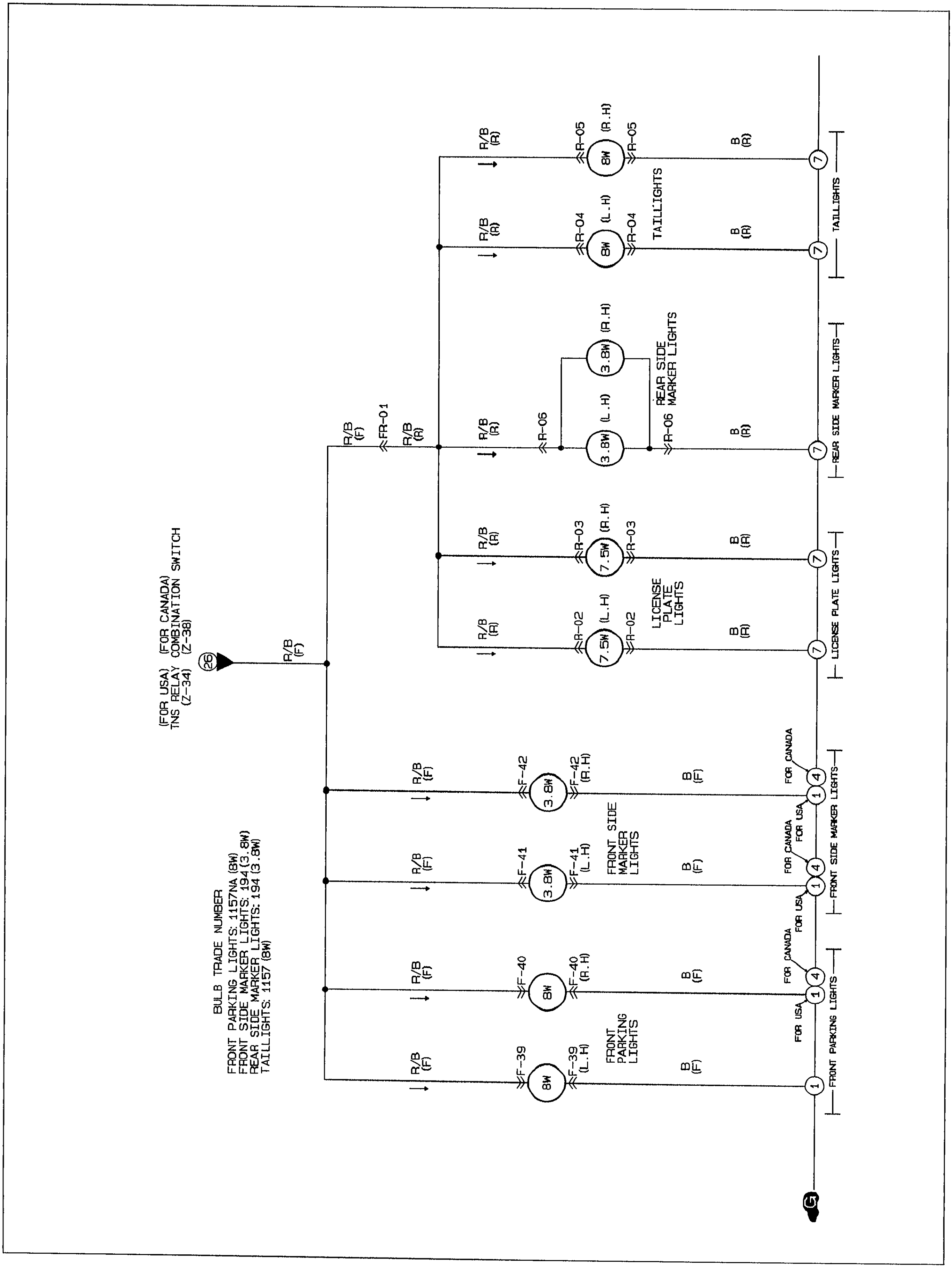
1. Disconnect the back-up light switch connectors.
2. Check continuity between terminals of the switch as shown.

Transmission	Continuity
Reverse	Yes
Others	No

3. If not as specified, replace the switch.

TAILLIGHTS, SIDE MARKER LIGHTS, PARKING LIGHTS AND LICENSE PLATE LIGHTS

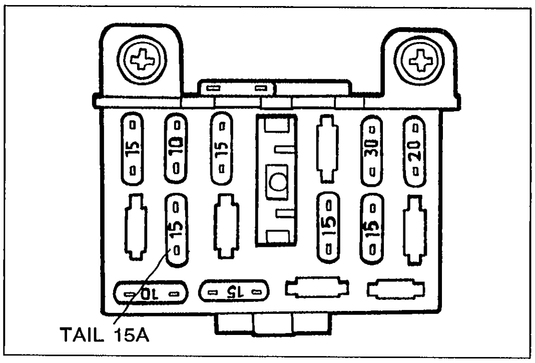
Circuit Diagram


(FOR USA) (FOR CANADA)
TNS RELAY COMBINATION SWITCH
(Z-34) (Z-38)
26
R/B (F)
R/B (R)
FR-01
B (R)
B (F)
TAILLIGHTS
R-04 8W (L.H)
R-05 8W (R.H)
REAR SIDE MARKER LIGHTS
R-06 3.8W (L.H)
3.8W (R.H)
LICENSE PLATE LIGHTS
R-02 7.5W (L.H)
R-03 7.5W (R.H)
FRONT SIDE MARKER LIGHTS
F-41 3.8W (L.H)
F-42 3.8W (R.H)
FRONT PARKING LIGHTS
F-39 8W (L.H)
F-40 8W (R.H)
FOR USA
FOR CANADA
1
4
7
G
BULB TRADE NUMBER
FRONT PARKING LIGHTS: 1157NA (8W)
FRONT SIDE MARKER LIGHTS: 194 (3.8W)
REAR SIDE MARKER LIGHTS: 194 (3.8W)
TAILLIGHTS: 1157 (8W)

Troubleshooting

Symptom: No lights illuminate (taillights, side marker lights, and license plate lights). (U.S. spec.)

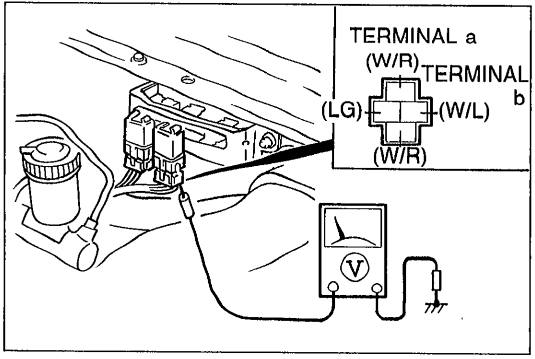
05U0TX-314



05U0TX-315

Step 1

1. Check TAIL 15A.
2. If the fuse is burned, replace it. Check and, if necessary, repair the wiring harness.
3. If the fuses are OK, go to Step 2.

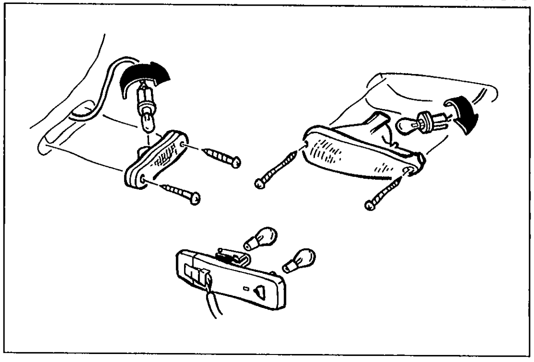


05U0TX-316

Step 2

1. Turn the headlight switch ON.
2. Measure the voltage at the following terminal wires of the TNS relay connector.

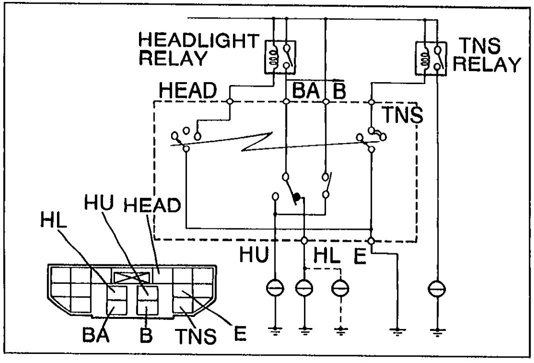
Wire	Voltage	Action
(W/L)	12V	Go to Step 3
	0V	Next check wire (LG)
(LG)	12V	Go to Step 4
	0V	Next check wire (W/R: Terminal a)
(W/R) Terminal a	12V	Next check wire (W/R: Terminal b)
	0V	Repair wire (W/R) (TAIL 15A fuse — TNS relay)
(W/R) Terminal b	12V	Replace TNS relay
	0V	Repair wire (W/R) (TAIL 15A fuse — TNS relay)



05U0TX-317

Step 3

1. Check the bulbs of the each light.
2. If the bulb is burned, replace the bulb.
3. If the bulbs are OK, repair wiring harness between the TNS relay and the body ground of each light.



05U0TX-318

Step 4

1. Disconnect the negative battery cable.
2. Remove the knee protector.
3. Disconnect the combination switch connector.
4. Check continuity between the following terminals of the combination switch.

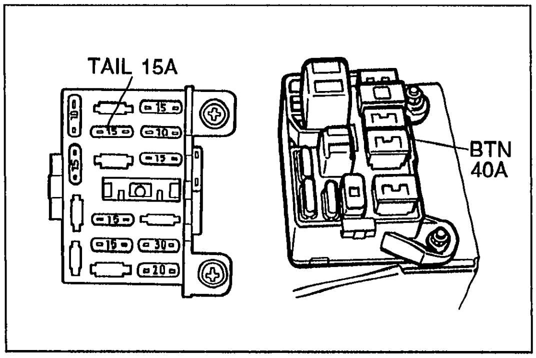
Position		Terminal						
		E	HL	HU	TNS	HEAD	BA	B
Headlight	Low beam	○—	—	—	—	○		
		○—	—	—	○			
			○—	—	—	—	○	
	High beam	○—	—	—	—	○		
		○—	—	—	○			
				○—	—	—	○	
Passing				○—	—	—	—	○
Taillights, Parking		○—	—	—	○			

○—○: Indicates continuity

5. If not as specified, replace the combination switch.
6. If correct, repair the wiring harness. (TNS relay — combination switch)

Symptom: No lights illuminate (taillights, side marker lights, and license plate lights). (Canada spec.)

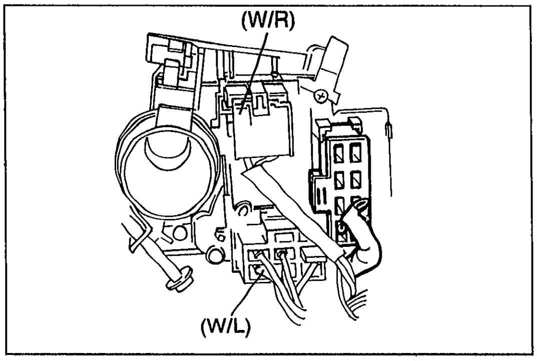
05U0TX-319



05U0TX-320

Step 1

1. Check 15A and A fuses.
2. If the fuse is burned, replace it. Check and, if necessary, repair the wiring harness.
3. If the fuses are OK, go to Step 2.



05U0TX-321

Step 2

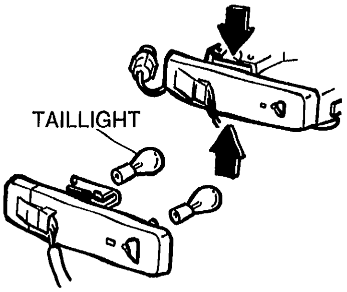
1. Turn the headlight switch ON.
2. Measure the voltage at the following terminal-wires of the combination switch connector.

Wire	Voltage	Action
(W/R)	12V	Next check wire (W/L)
	0V	Repair wire (W/R) (TAIL 15A fuse — combination switch)
(W/L)	12V	Repair the wiring harness (Combination switch — body ground of each light)
	0V	Replace headlight switch

Removal / Installation

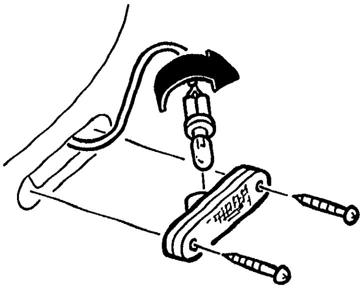
Remove and install as shown in the figures.

Taillights



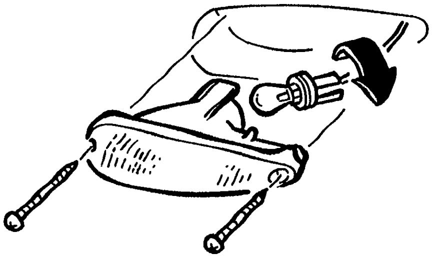
05U0TX-149

Side marker lights



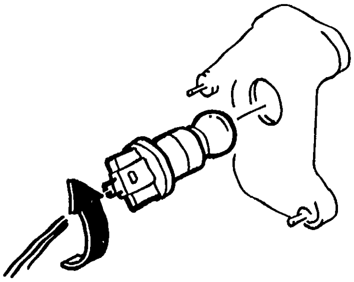
05U0TX-150

Parking lights



05U0TX-151

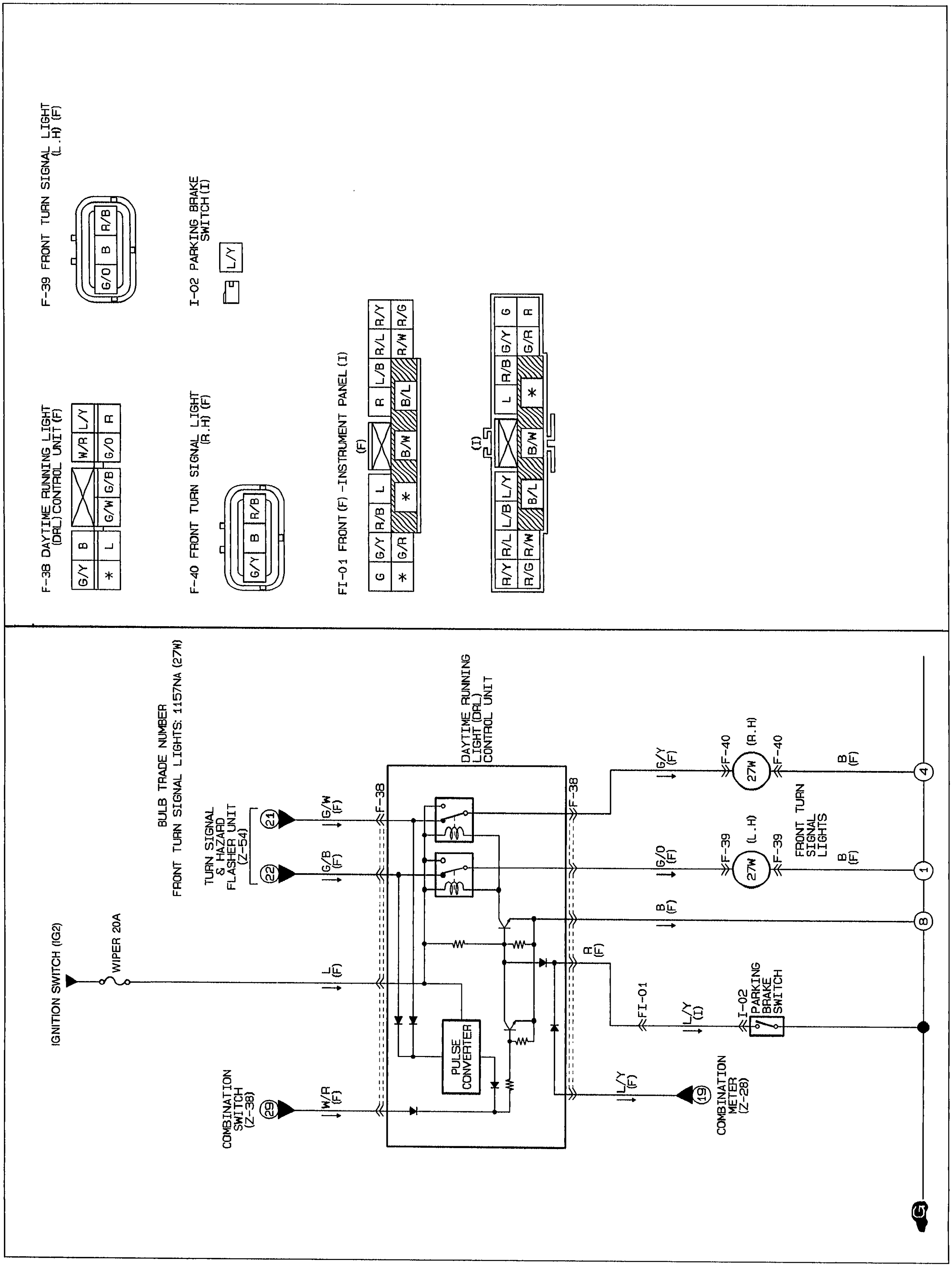
License plate lights



05U0TX-152

DAYTIME RUNNING LIGHTS (DRL) (Canada spec.)

Circuit Diagram


F-39 FRONT TURN SIGNAL LIGHT (L.H) (F)
G/O B R/B
I-02 PARKING BRAKE SWITCH (I)
L/Y
F-38 DAYTIME RUNNING LIGHT (DRL) CONTROL UNIT (F)
G/Y B G/W G/B W/R L/Y * L G/O R
F-40 FRONT TURN SIGNAL LIGHT (R.H) (F)
G/Y B R/B
FI-01 FRONT (F) -INSTRUMENT PANEL (I)
(F)
G G/Y R/B L R L/B R/L R/Y * G/R * B/W B/L R/W R/G
(I)
R/Y R/L L/B L/Y L R/B G/Y G R/G R/W B/L B/W * G/R R
IGNITION SWITCH (IG2)
WIPER 20A
L (F)
BULB TRADE NUMBER
FRONT TURN SIGNAL LIGHTS: 1157NA (27W)
TURN SIGNAL & HAZARD FLASHER UNIT (Z-54)
㉑ ㉒
G/W (F)
G/B (F)
F-38
DAYTIME RUNNING LIGHT (DRL) CONTROL UNIT
PULSE CONVERTER
COMBINATION SWITCH (Z-38)
㉙
W/R (F)
G/Y (F)
G/O (F)
B (F)
R (F)
F-40 27W (R.H) F-40
F-39 27W (L.H) F-39
FRONT TURN SIGNAL LIGHTS
B (F)
④ ① ⑧
FI-01
L/Y (I)
I-02 PARKING BRAKE SWITCH
L/Y (F)
⑲
COMBINATION METER (Z-28)

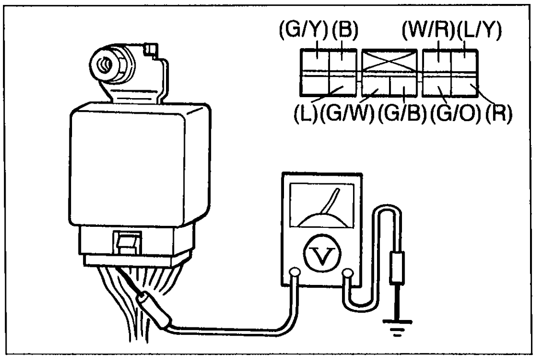
05U0TX-155

Symptom: Daytime running lights (DRL) do not operate. (Turn signals function normally.)

DRL operate with engine runing and following switches are off:

- **Headlight switch**
- **Turn signal switch**
- **Hazard warning switch**
- **Parking brake switch (Parking brake released)**

05U0TX-156



05U0TX-157

Step 1

Warning

- **Position the vehicle on a flat surface and block the wheels to prevent vehicle movement.**

1. Turn on the ignition switch.
2. Measure the voltage at the following terminal-wires of the DRL unit.
3. If correct, replace the DRL unit.

Wire	Connected to	Test condition	Specification	Action
(L)	WIPER 20A fuse	Constant	12V	Repair wire (L) (WIPER 20A—DRL unit)
(B)	Ground	Constant	0V	Repair wire (B) (DRL unit—Body ground)
(R)	Parking brake switch	Parking brake released	12V	Go to Step 2
(W/R)	Headlight switch	Headlight switch off	0V	Go to Step 3

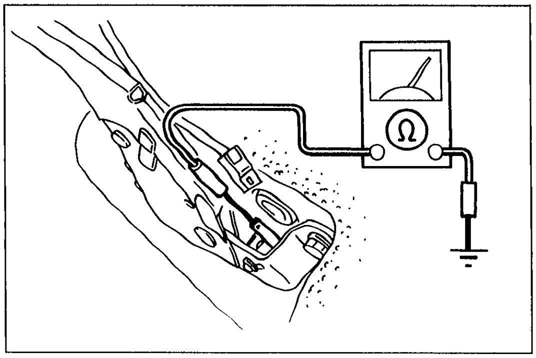
05U0TX-158

Step 2

1. Disconnect the parking brake switch connector.
2. Check continuity between the terminal of the switch and a body ground.

Parking brake lever	Continuity
Pulled one notch	Yes
Released	No

3. If not as specified, adjust or replace the parking brake switch.
4. If correct, repair wires (R) and (L/Y). (Parking brake switch — DRL unit)



05U0TX-159

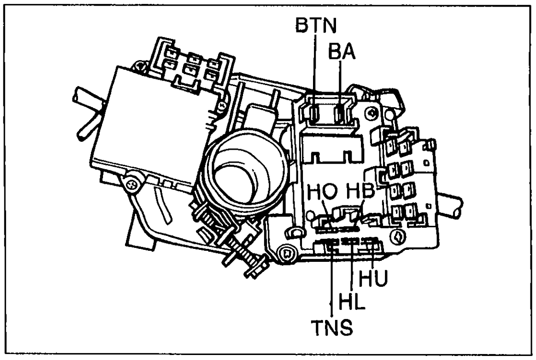
Step 3

1. Remove the column cover and disconnect the connectors of the headlight switch.
2. Check continuity between the terminals of the headlight switch connector.

Position	Terminal	
	BTN	TNS
Headlight switch ON	○—	—○
Headlight switch OFF		

○—○: Indicates continuity

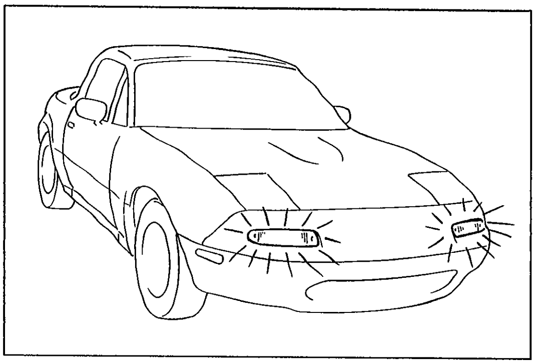
3. If not as specified, replace the headlight switch.
4. If correct, repair wire (W/R). (Headlight switch — DRL unit)



05U0TX-160

Symptom: Daytime running lights (DRL) function does not cancel.

05U0TX-161



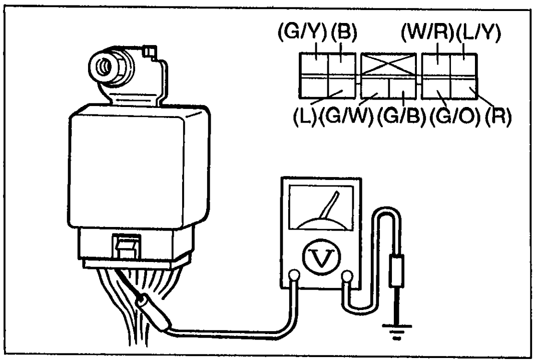
05U0TX-162

Step 1

1. Turn on the ignition switch ON.
2. Verify the symptom by operating the following switches; the DRL should cancel. Go to the specified Step.
    - Headlight switch.
    - Hazard warning switch.
    - Turn signal switch.
    - Parking brake switch (lever pulled one notch).

Symptom: DRL function not canceled when	Next Step
Headlight switch ON	Step 2
Hazard warning switch ON	Step 4
Turn signal switch ON	Step 4
Parking brake switch ON	Step 5

05U0TX-163



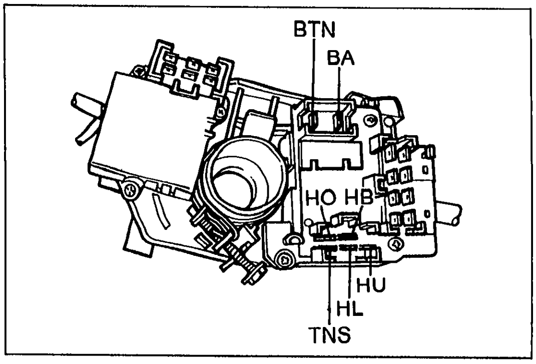
05U0TX-164

Step 2

1. Turn on the ignition switch.
2. Turn on the headlight switch.
3. Check the voltage at the terminal-wire (W/R) of the DRL unit connector.

Wire	Voltage
(W/R)	12V

4. If not as specified, go to Step 3.
5. If correct, replace the DRL unit.



05U0TX-165

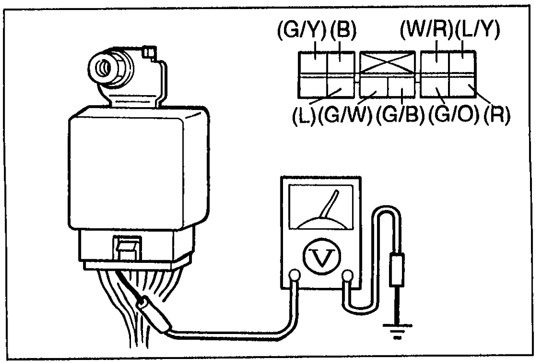
Step 3

1. Remove the column cover and disconnect the connectors of the headlight switch.
2. Check continuity between the terminals of the headlight switch connector.

Position	Terminal	
	BTN	TNS
Headlight switch ON	○—	—○
Headlight switch OFF		

○—○: Indicates continuity

3. If not as specified, replace the headlight switch.
4. If correct repair wire (W/R). (Headlight switch — DRL unit)



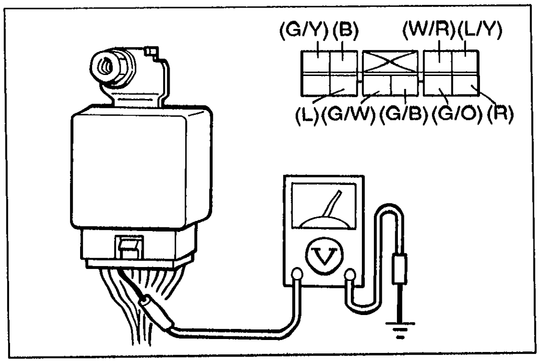
05U0TX-166

Step 4

1. Turn on the ignition switch.
2. Turn on the headlight switch.
3. Check the voltage at the following terminal-wires of the DRL unit connector.

Wire	Voltage
(G/B)	Cycles 12V and 0V
(G/W)	Cycles 12V and 0V

4. If not as specified, repair the wire harness. (Turn and hazard warning flasher unit — DRL unit)
5. If correct, replace the DRL unit.



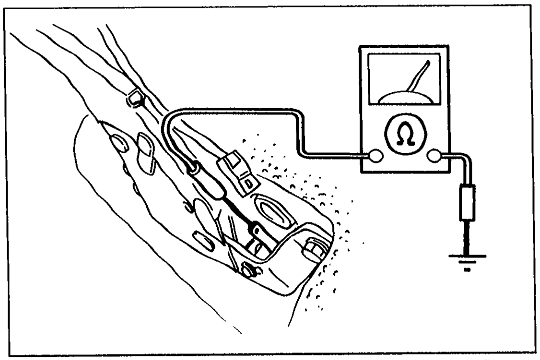
05U0TX-167

Step 5

1. Turn on the ignition switch.
2. Pull the parking brake lever more than one notch.
3. Check the voltage at terminal-wire (R) of the DRL unit connector.

Wire	Voltage
(R)	0V

4. If not as specified, go to Step 6.
5. If correct, replace the DRL unit.



05U0TX-168

Step 6

1. Disconnect the parking brake switch connector.
2. Check continuity between the terminal of the switch and a body ground.

Parking brake lever	Continuity
Pulled one notch	Yes
Released	No

3. If not as specified, adjust or replace the parking brake switch.
4. If correct, repair wires (R) and (L/Y). (Parking brake switch — DRL unit)

Removal / Installation

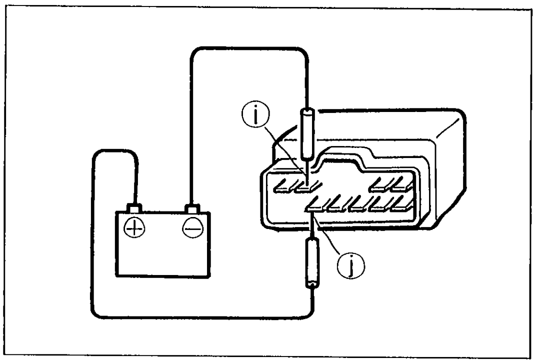
Refer to the following pages:

Item	Reference page
Headlight switch (in combination switch)	T–23
Hazard warning switch	T–25
Turn signal switch (in combination switch)	T–23
Daytime running lights (Front turn signal lights)	T–69

05U0TX-169

Inspection
DRL unit

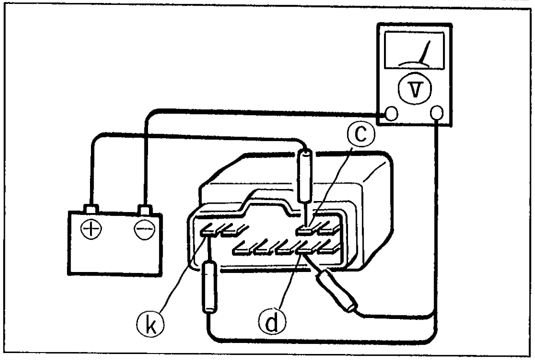
Note
- **While performing the following inspection, apply 12V to terminal j and ground terminal i.**



05U0TX-322

1. Apply 12V to terminal c, and measure the voltage at terminals d and k.

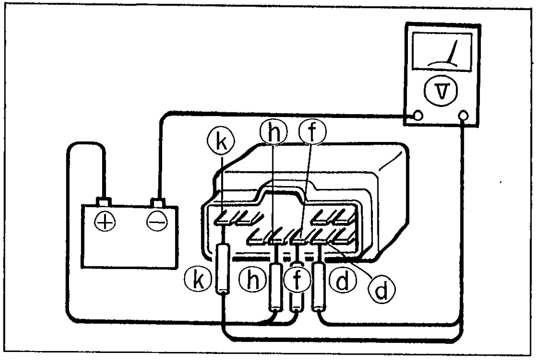
Terminal	Voltage
d	12V
k	12V



05U0TX-170

2. If not as specified, replace the DRL unit.
3. Remove 12V from terminal c.
4. Apply 12V to terminals f and h, and measure the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

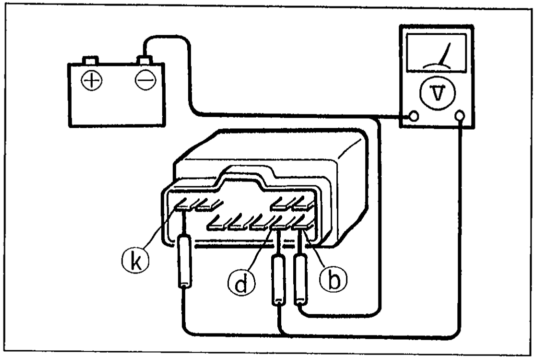


05U0TX-171

5. If not as specified, replace the DRL unit.
6. Remove 12V from terminals f and h.
7. Ground terminal b, and check the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

8. If not as specified, replace the DRL unit.

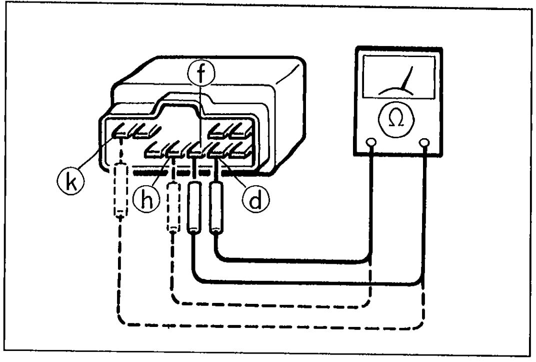


05U0TX-172

9. Check for continuity between terminals of the DRL unit.

Terminal	Continuity
d—f	Yes
h—k	Yes

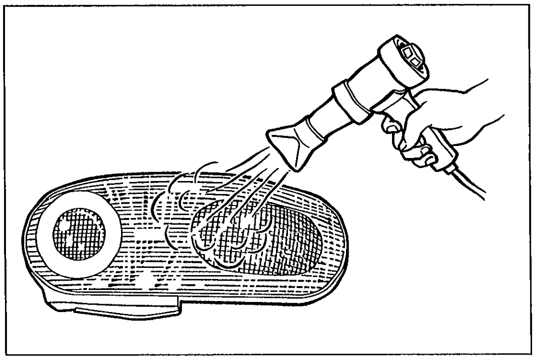
10. If not as specified, replace the DRL unit.



05U0TX-173

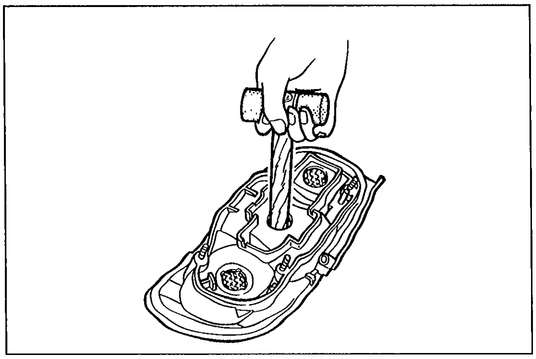
REAR COMBINATION LIGHT LENS

Replacement of Rear Combination Light Lens



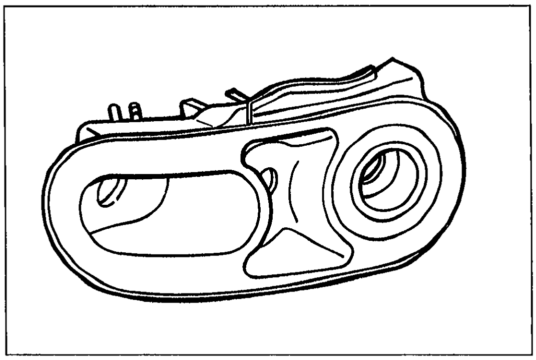
05U0TX-174

1. Use a hot air blower to soften the "hot melt" (bonding agent) around the lens.



76U14X-034

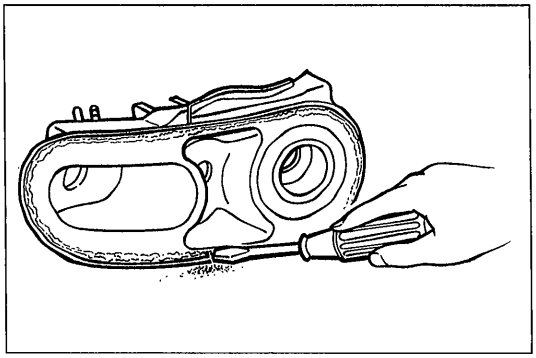
2. Remove the lens from the light housing by pushing the rear of the lens with a hammer handle or round bar.



05U0TX-323

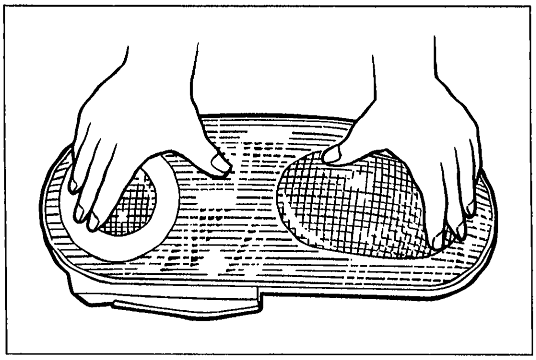
3. Heat the light housing, and remove the "hot melt" and any fragments of the lens.

Note
- **The "hot melt" should be reused if possible.**
- **If the "hot melt" can be reused, the Step 4 is unnecessary.**



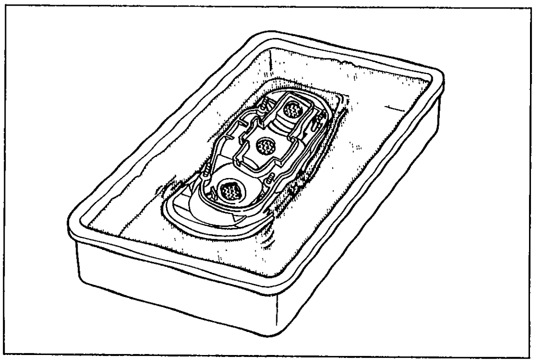
86U14X-079

4. Put **Uni-sealer** (8531 77 739) adhesive in the light housing groove.



86U14X-080

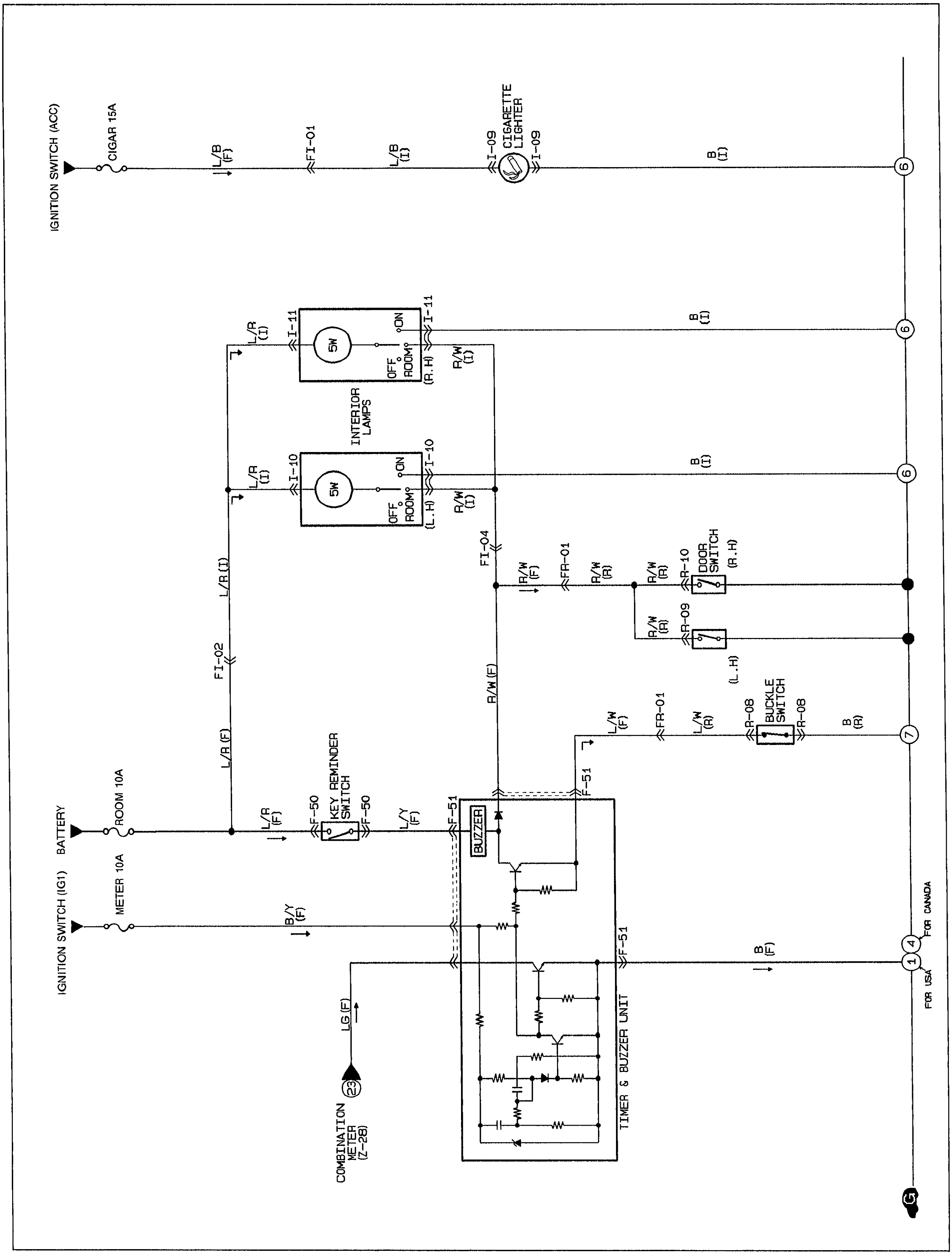
5. Fit the new lens onto the light housing. Press the lens firmly so that it will adhere.


76U14X-038

6. Immerse the combination light in water to check for leaks.

INTERIOR LAMPS

Circuit Diagram

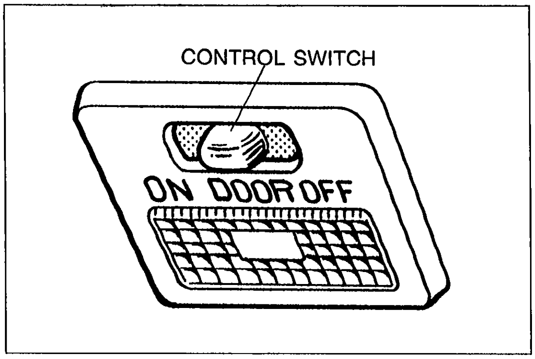

IGNITION SWITCH (ACC)
CIGAR 15A
L/B (F)
FI-01
L/B (I)
I-09
CIGARETTE LIGHTER
I-09
B (I)
6
L/R (I)
I-11
5W
OFF
ROOM
ON
I-11
(R.H)
R/W (I)
B (I)
6
INTERIOR LAMPS
L/R (I)
I-10
5W
OFF
ROOM
ON
I-10
(L.H)
R/W (I)
B (I)
6
FI-04
R/W (F)
FR-01
R/W (R)
R/W (R)
R-10
DOOR SWITCH
(R.H)
R/W (R)
R-09
(L.H)
L/R (I)
FI-02
L/R (F)
R/W (F)
L/W (F)
FR-01
L/W (R)
R-08
BUCKLE SWITCH
R-08
B (R)
7
BATTERY
ROOM 10A
L/R (F)
F-50
KEY REMINDER SWITCH
F-50
L/Y (F)
F-51
BUZZER
F-51
IGNITION SWITCH (IG1)
METER 10A
B/Y (F)
F-51
B (F)
1
4
FOR CANADA
FOR USA
LG (F)
23
COMBINATION METER (Z-28)
TIMER & BUZZER UNIT
G

05U0TX-175

Troubleshooting

Symptom: Interior lamp(s) do not illuminate.

05U0TX-176

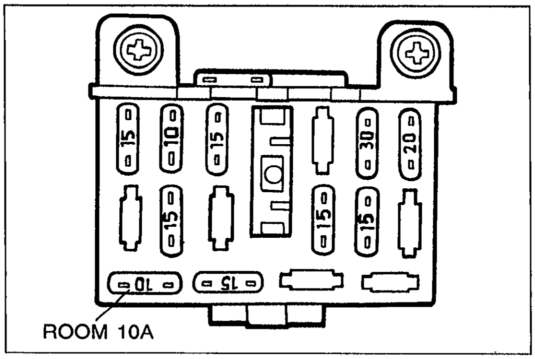


05U0TX-177

Step 1
Verify the trouble symptom by operating the control switch and opening the doors. Go to the specified Step.

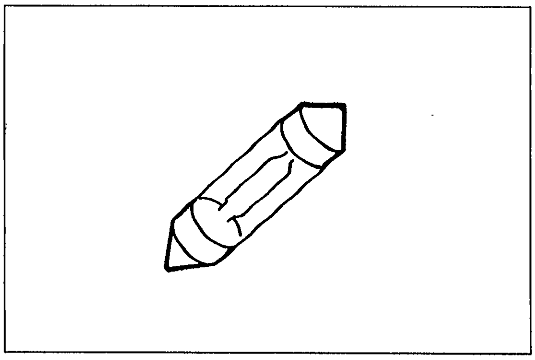
Symptom	Go to
Interior lamp(s) do not illuminate when control switches are in any position	Step 2
Interior lamp(s) illuminate when control switches are in ON position, but do not illuminate with door open when switches are in DOOR position	Step 5
Interior lamp(s) illuminate when control switches are in DOOR position, but do not illuminate when switches are in ON position	Step 7

05U0TX-178



05U0TX-179

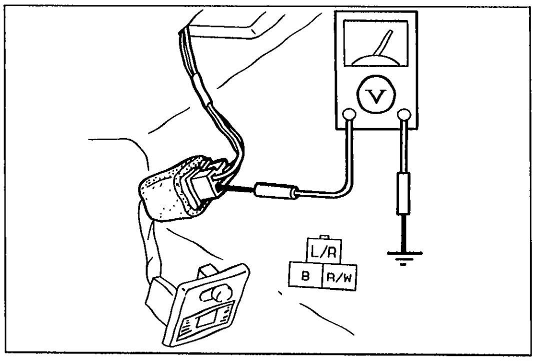
Step 2
1. Check the ROOM 10A fuse.
2. If the fuse is burned, replace it. Check and repair the wire harness if necessary.
3. If the fuse is OK, go to Step 3.



05U0TX-180

Step 3

1. Check the bulb of each lamp.
2. If a bulb is burned, replace it.
3. If the bulbs are OK, go to Step 4.

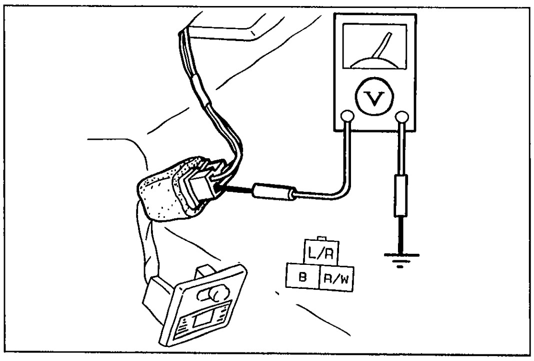


05U0TX-181

Step 4

1. Set the control switches to ON position.
2. Measure the voltage at the following terminal-wires of each interior lamp connector.

Wire	Voltage	Action
(L/R)	12V	Next check wire (B)
	0V	Repair wire (L/R) (ROOM 10A fuse—Interior lamp)
(B)	12V	Repair wire (B) (Interior lamp—Body ground)
	0V	Replace interior lamp assembly

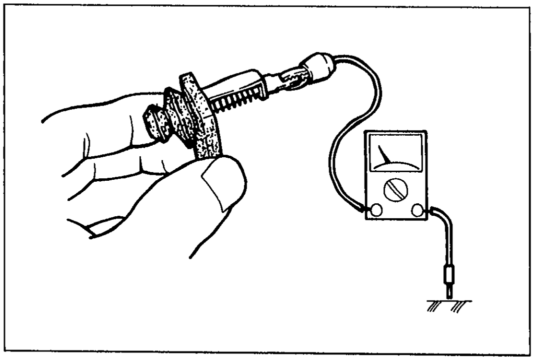


05U0TX-182

Step 5

1. Open both doors, and set the control switches to DOOR position.
2. Measure the voltage at terminal-wire (R/W) of each interior lamp connector.

Wire	Voltage	Action
(R/W)	12V	Go to Step 6
	0V	Replace interior lamp assembly



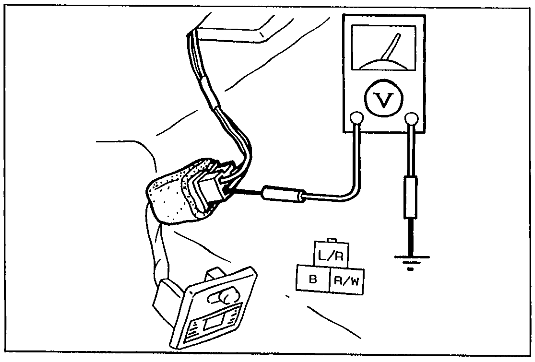
05U0TX-183

Step 6

1. Disconnect the door switch connector, and check continuity of each switch.

Switch	Continuity
Pushed	No
Released	Yes

2. If not as specified, replace the door switch.
3. If the switches are OK, repair wire (R/W). (Interior lamp-Door switch)



05U0TX-184

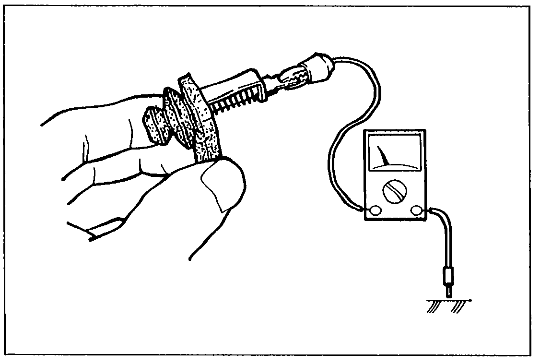
Step 7

1. Set the control switches to ON position.
2. Measure the voltage at terminal-wire (B) of the interior lamp connector.

Wire	Voltage	Action
(B)	12V	Repair wire (B) (Interior lamp—Body ground)
	0V	Replace interior lamp assembly

Symptom: Interior lamp(s) remains illuminated with doors closed.
(Control switch: DOOR position)

05U0TX-185



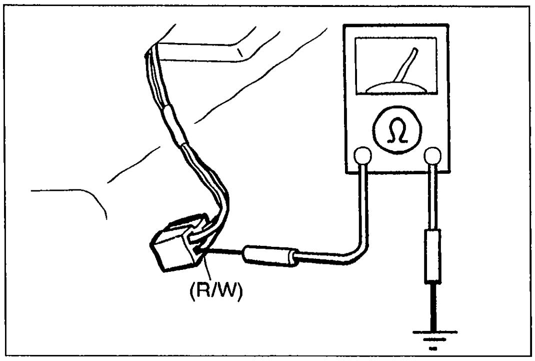
05U0TX-186

Step 1

1. Disconnect the door switch connectors, and check continuity of each switch as shown.

Switch	Continuity
Pushed	No
Released	Yes

2. If not as specified, replace the door switch.
3. If the switches are OK go to Step 2.

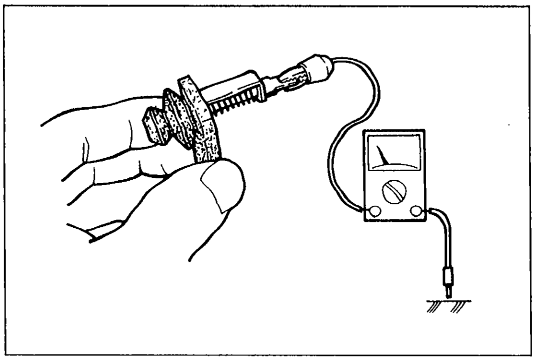


05U0TX-187

Step 2

1. Close both doors.
2. Disconnect the interior lamp connectors, and check continuity between terminal-wire (R/W) and a body ground.

Wire	Continuity	Action
(R/W)-Body ground	Yes	Repair wire (R/W) (Interior lamp—Door switch)
	No	Replace interior lamp assembly



05U0TX-188

Inspection

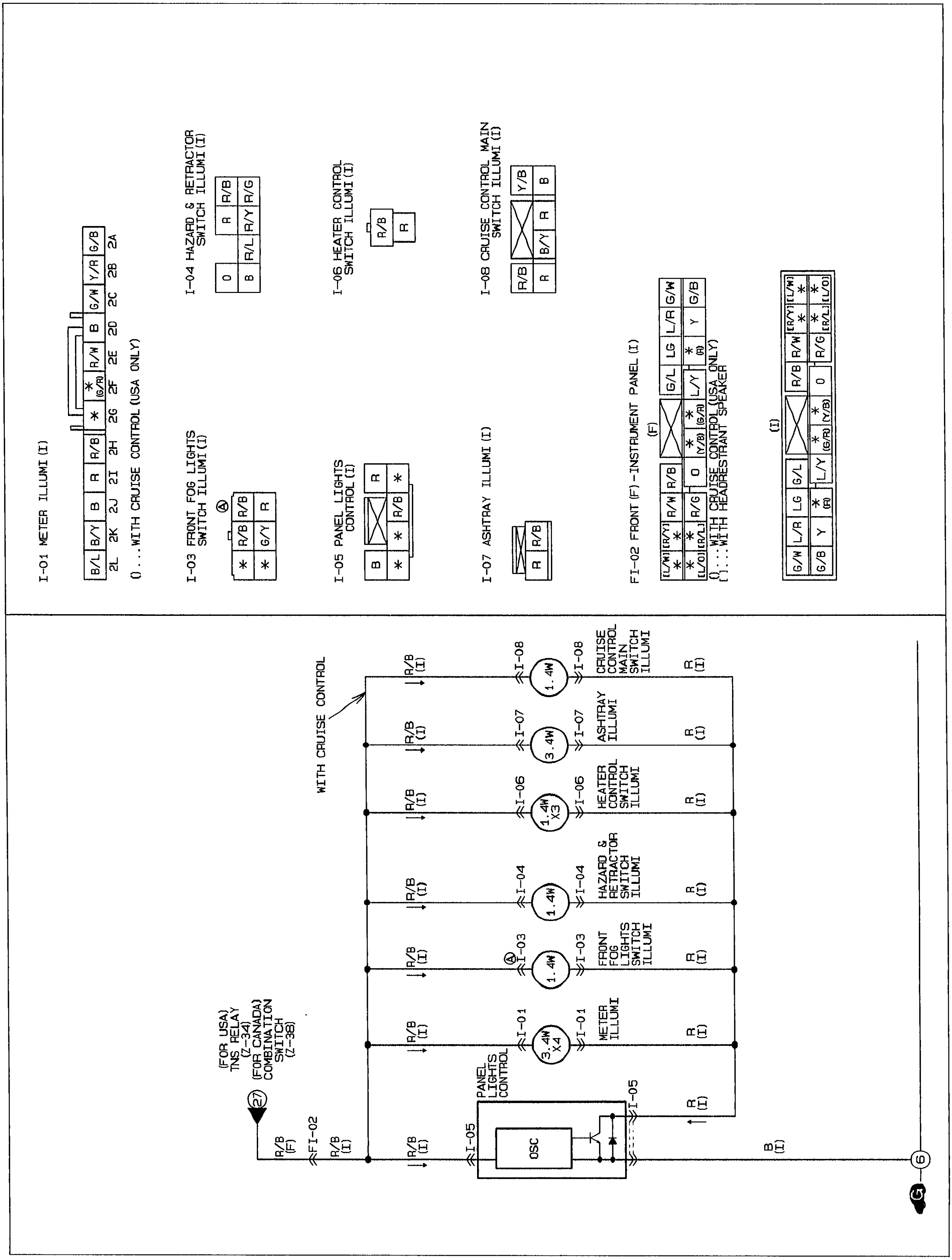
Door switch

1. Disconnect the door switch connector, and check continuity of the switch as shown.

Switch	Continuity
Pushed	No
Released	Yes

2. If not as specified, replace the door switch.

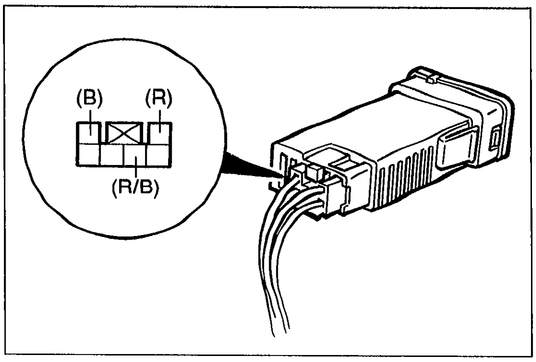
ILLUMINATION LAMPS
Circuit Diagram


I-01 METER ILLUMI (I)
B/L B/Y B R R/B ✱ ✱(G/R) R/W B G/W Y/R G/B
2L 2K 2J 2I 2H 2G 2F 2E 2D 2C 2B 2A
( )...WITH CRUISE CONTROL (USA ONLY)
I-03 FRONT FOG LIGHTS SWITCH ILLUMI (I)
Ⓐ
I-04 HAZARD & RETRACTOR SWITCH ILLUMI (I)
I-05 PANEL LIGHTS CONTROL (I)
I-06 HEATER CONTROL SWITCH ILLUMI (I)
I-07 ASHTRAY ILLUMI (I)
I-08 CRUISE CONTROL MAIN SWITCH ILLUMI (I)
FI-02 FRONT (F)-INSTRUMENT PANEL (I)
(F)
(I)
( )...WITH CRUISE CONTROL (USA ONLY)
[ ]...WITH HEADRESTRANT SPEAKER
(FOR USA) TNS RELAY (Z-34) (FOR CANADA) COMBINATION SWITCH (Z-38)
27
R/B (F)
FI-02
R/B (I)
PANEL LIGHTS CONTROL
OSC
I-05
B (I)
6
G
WITH CRUISE CONTROL
3.4W X4
METER ILLUMI
1.4W
FRONT FOG LIGHTS SWITCH ILLUMI
HAZARD & RETRACTOR SWITCH ILLUMI
1.4W X3
HEATER CONTROL SWITCH ILLUMI
3.4W
ASHTRAY ILLUMI
CRUISE CONTROL MAIN SWITCH ILLUMI
R (I)

Troubleshooting

Symptom: Illumination lamp control does not operate.

05U0TX-325

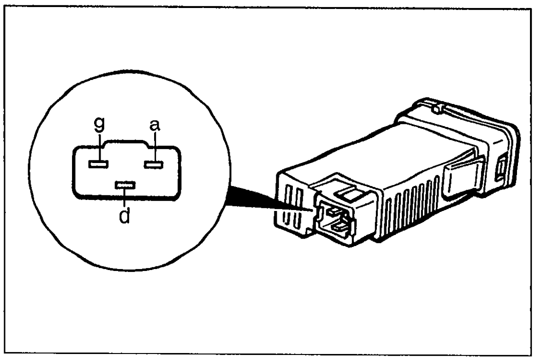


05U0TX-326

Remady

1. Turn the headlight switch ON.
2. Set the panel lamp control switch to Max. position.
3. Measure the voltage at the following terminal wires of the panel lamp control switch connector.

Wire	Voltage	Action
(B)	0V	Next check wire (R/B)
	Other 0V	Repair wire (B) (Panel lamp control switch — Body ground)
(R/B)	12V	Next check wire (R)
	0V	Repair wire (R/B) (TAIL 15A fuse — Panel lamp control switch)
(R)	0V	Repair wiring harness (Panel lamp control switch — Each lamp)
	Other 0V	Replace panel lamp control switch



05U0TX-327

Inspection

Panel lamp control switch

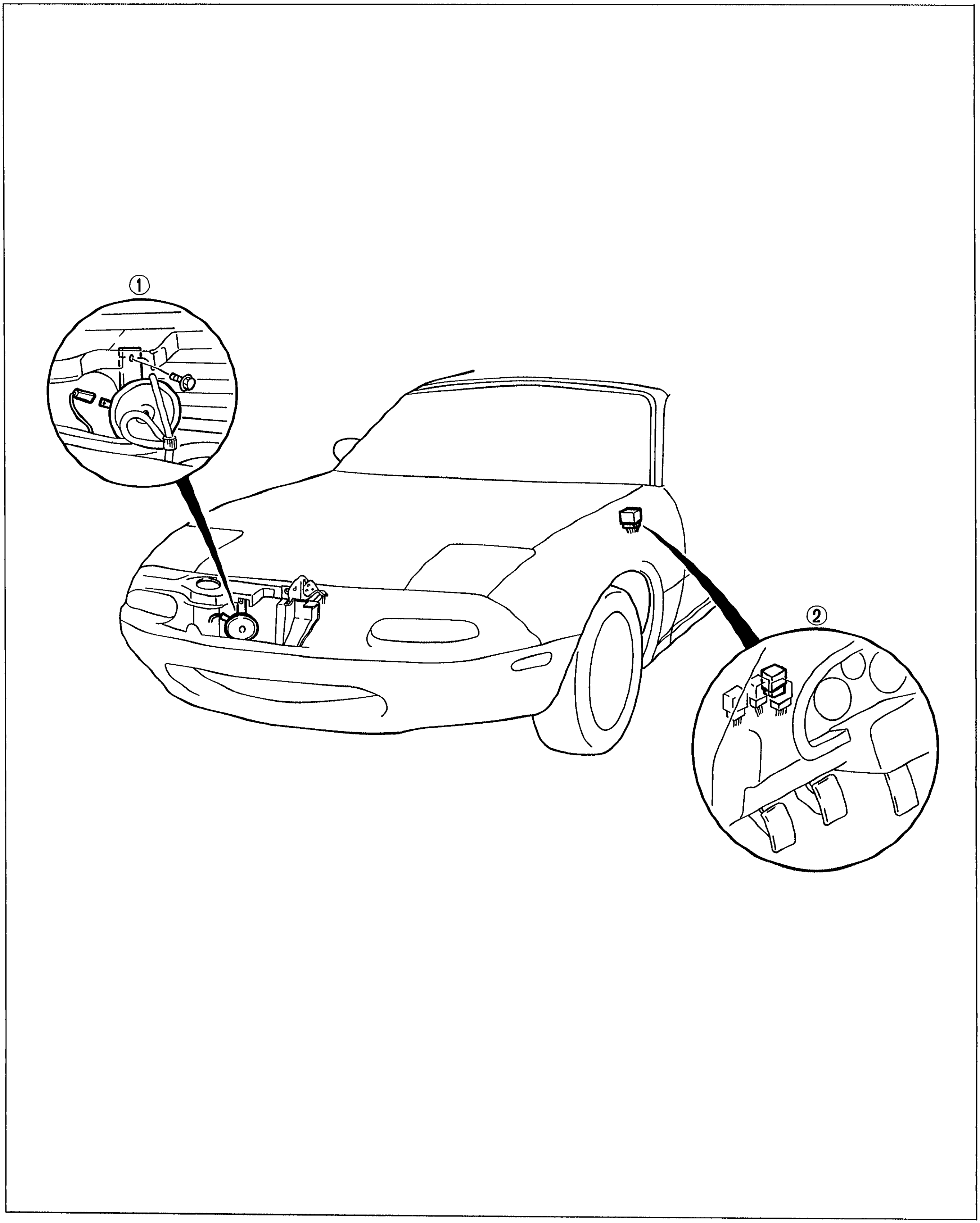
1. Remove the panel lamp control switch.
2. Apply 12V to terminal d and ground terminal g.
3. Check that the voltage at terminal a changes linealy when turning the control switch.

Switch	Voltage
Min. position	10V
Max. position	0V

4. If not as specified, replace the panel lamp control switch.

HORN

STRUCTURAL VIEW



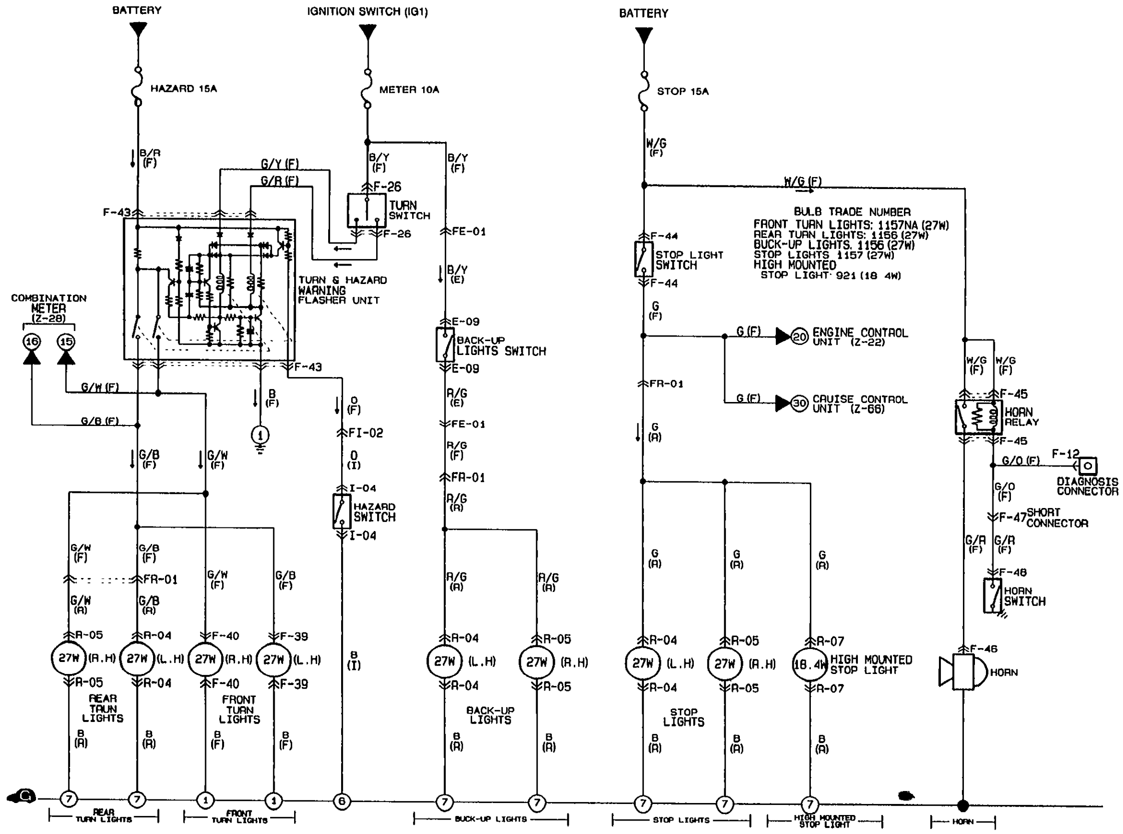
05U0TX-328

1. Horn
2. Horn relay
3. Horn switch

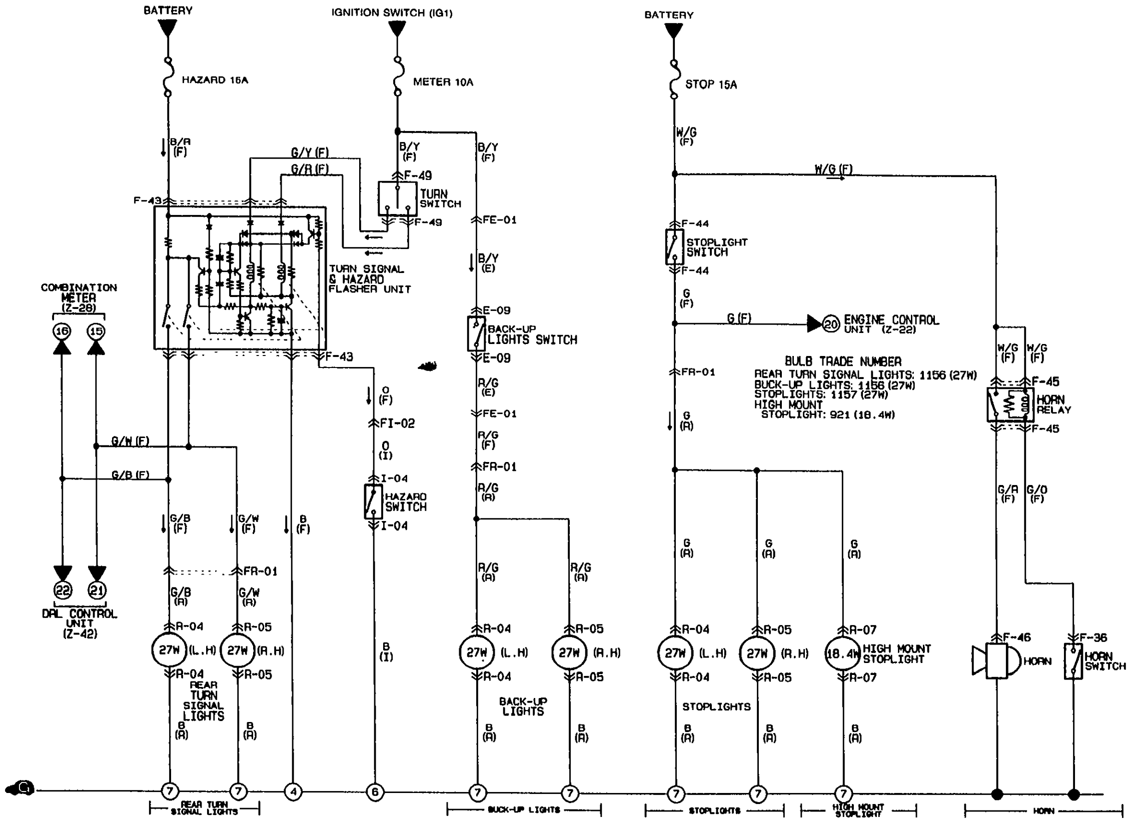
HORN

CIRCUIT DIAGRAM

[FOR USA]


BATTERY
HAZARD 15A
B/R (F)
G/Y (F)
G/R (F)
F-43
TURN & HAZARD WARNING FLASHER UNIT
COMBINATION METER (Z-28)
16
15
G/W (F)
G/B (F)
G/B (F)
G/W (F)
B (F)
1
IGNITION SWITCH (IG1)
METER 10A
B/Y (F)
F-26
TURN SWITCH
F-26
O (F)
FI-02
O (I)
I-04
HAZARD SWITCH
I-04
B/Y (F)
FE-01
B/Y (E)
E-09
BACK-UP LIGHTS SWITCH
E-09
R/G (E)
FE-01
R/G (F)
FR-01
R/G (R)
G/W (F)
G/B (F)
FR-01
G/W (R)
G/B (R)
R-05
27W (R.H)
R-05
REAR TURN LIGHTS
R-04
27W (L.H)
R-04
F-40
27W (R.H)
F-40
FRONT TURN LIGHTS
F-39
27W (L.H)
F-39
B (I)
R/G (R)
R-04
27W (L.H)
R-04
R-05
27W (R.H)
R-05
BACK-UP LIGHTS
B (R)
B (F)
BATTERY
STOP 15A
W/G (F)
W/G (F)
F-44
STOP LIGHT SWITCH
F-44
G (F)
G (F)
20 ENGINE CONTROL UNIT (Z-22)
FR-01
G (F)
30 CRUISE CONTROL UNIT (Z-66)
G (R)
G (R)
R-04
27W (L.H)
R-04
R-05
27W (R.H)
R-05
STOP LIGHTS
R-07
18.4W HIGH MOUNTED STOP LIGHT
R-07
BULB TRADE NUMBER
FRONT TURN LIGHTS: 1157NA (27W)
REAR TURN LIGHTS: 1156 (27W)
BUCK-UP LIGHTS. 1156 (27W)
STOP LIGHTS 1157 (27W)
HIGH MOUNTED
STOP LIGHT· 921 (18 4W)
W/G (F)
W/G (F)
F-45
HORN RELAY
F-45
G/O (F)
F-12
DIAGNOSIS CONNECTOR
G/O (F)
F-47 SHORT CONNECTOR
G/R (F)
G/R (F)
F-48
HORN SWITCH
F-46
HORN
7
7
1
1
6
7
7
7
7
7
REAR TURN LIGHTS
FRONT TURN LIGHTS
BUCK-UP LIGHTS
STOP LIGHTS
HIGH MOUNTED STOP LIGHT
HORN

[FOR CANADA]

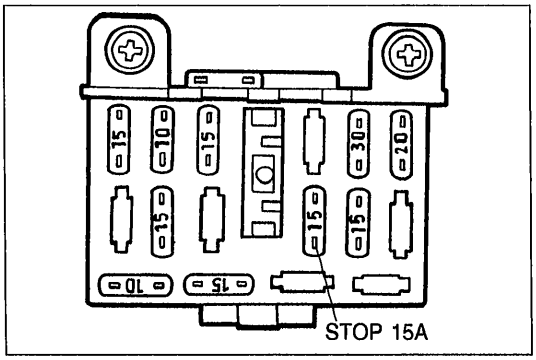

BATTERY
HAZARD 15A
B/R (F)
G/Y (F)
G/R (F)
F-43
TURN SIGNAL & HAZARD FLASHER UNIT
F-43
COMBINATION METER (Z-28)
16
15
G/W (F)
G/B (F)
G/B (F)
G/W (F)
B (F)
FR-01
G/B (R)
G/W (R)
R-04
27W (L.H)
R-04
R-05
27W (R.H)
R-05
REAR TURN SIGNAL LIGHTS
22
21
DRL CONTROL UNIT (Z-42)
IGNITION SWITCH (IG1)
METER 10A
B/Y (F)
F-49
TURN SWITCH
F-49
O (F)
FI-02
O (I)
I-04
HAZARD SWITCH
I-04
B (I)
B/Y (F)
FE-01
B/Y (E)
E-09
BACK-UP LIGHTS SWITCH
E-09
R/G (E)
FE-01
R/G (F)
FR-01
R/G (R)
R/G (R)
R/G (R)
R-04
27W (L.H)
R-04
R-05
27W (R.H)
R-05
BACK-UP LIGHTS
B (R)
BATTERY
STOP 15A
W/G (F)
W/G (F)
F-44
STOPLIGHT SWITCH
F-44
G (F)
G (F)
20 ENGINE CONTROL UNIT (Z-22)
FR-01
G (R)
G (R)
R-04
27W (L.H)
R-04
R-05
27W (R.H)
R-05
STOPLIGHTS
R-07
18.4W HIGH MOUNT STOPLIGHT
R-07
BULB TRADE NUMBER
REAR TURN SIGNAL LIGHTS: 1156 (27W)
BUCK-UP LIGHTS: 1156 (27W)
STOPLIGHTS: 1157 (27W)
HIGH MOUNT
STOPLIGHT: 921 (18.4W)
W/G (F)
W/G (F)
F-45
HORN RELAY
F-45
G/R (F)
G/O (F)
F-46
HORN
F-36
HORN SWITCH
7
7
4
6
7
7
7
7
7
REAR TURN SIGNAL LIGHTS
BUCK-UP LIGHTS
STOPLIGHTS
HIGH MOUNT STOPLIGHT
HORN

05U0TX-329

TROUBLESHOOTING

Symptom: Horn does not sound.

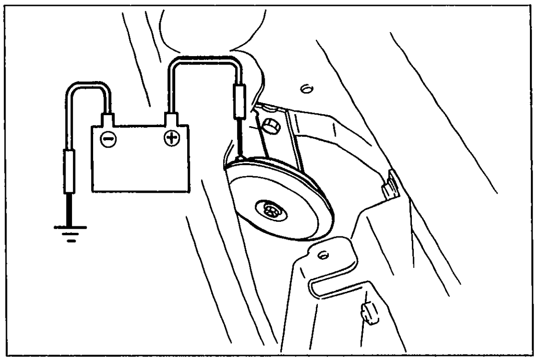
05U0TX-191



05U0TX-192

Step 1

1. Check the STOP 15A fuse.
2. If the fuse is burned, replace it. Check and repair the wire harness, if necessary.
3. If the fuse is OK, go to Step 2.



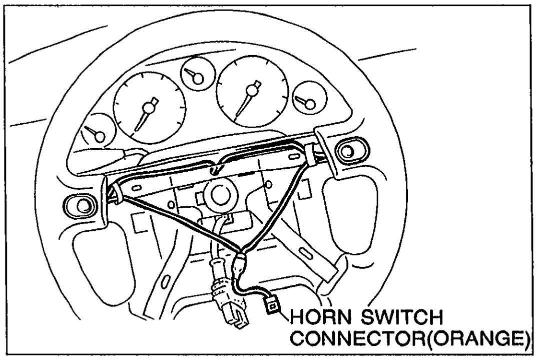
05U0TX-193

Step 2

1. Disconnect the horn connector.
2. Apply 12V to the horn, and check if the horn sounds.
3. If the horn sounds, go to Step 3.
4. If the horn does not sound, replace the horn.

Step 3

1. Remove the knee protector.
2. Ground the terminal wire (G/O) of the horn relay connector.
3. If the horn sounds, go to Step 4.
4. If the horn does not sound, go to Step 6.



05U0TX-194

Step 4

U.S. spec.

Warning

- **Before removal of the air bag module, the negative battery cable must be disconnected to prevent accidentaly deployment.**

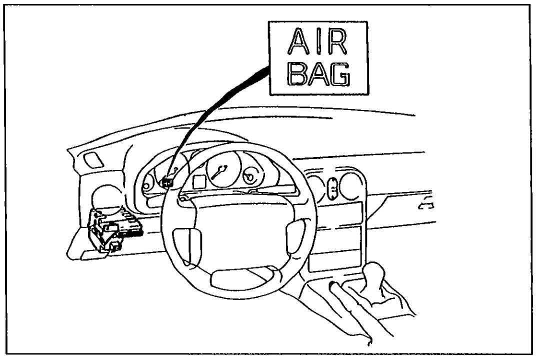
1. Remove the air bag module. (Refer to page T–150.)
2. Check continuity between the terminal of the horn switch connector and the steering shaft.

Horn switch	Continuity
ON	Yes
OFF	No

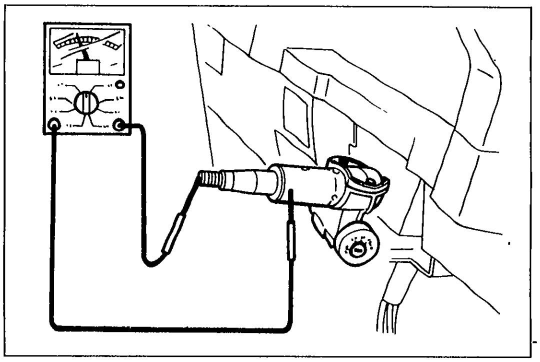
3. If not as specified, replace the horn switch and steering wheel as an assembly.
4. If correct, go to Step 5.

Warning

- **After installing of the air bag module, verify that the air bag system is operating normally by monitoring the air bag warning lamp. (Refer to page T–138.)**



05U0TX-195



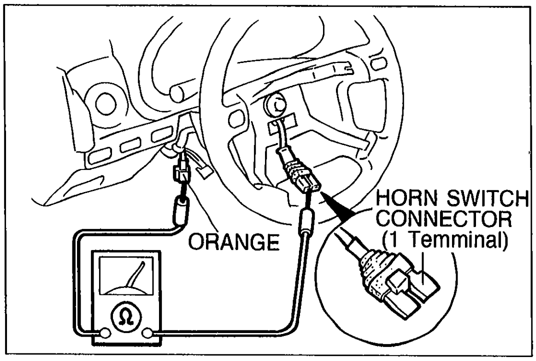
05U0TX-196

Canada spec.

1. Remove the steering shaft.
2. Check continuity between the horn conductor plate and the serration gear part.

Horn switch	Continuity
ON	Yes
OFF	No

3. If not as specified, replace the horn switch and steering wheel as an assembly.
4. If correct, repair wire (G/O) (Horn relay — horn switch).



05U0TX-197

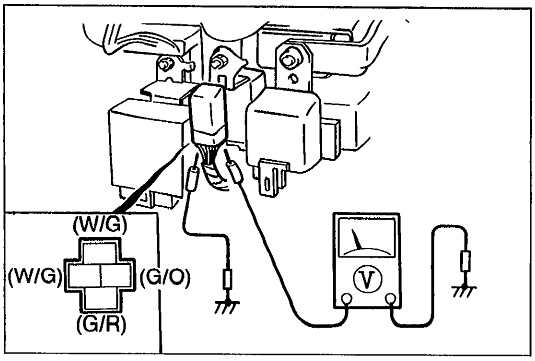
Step 5

1. Remove the knee protector.
2. Disconnect the clock spring connector.
3. Check continuity of the clock spring connector as shown in the figure.

Continuity	Action
Yes	Repair wire (G/O) (Horn relay — Clock spring connector)
No	Replace combination switch assembly

Warning

- **After installation of the air bag module, verify that the air bag system is operating normally by monitoring the air bag warning lamp.**
  (Refer to page T–138.)



05U0TX-198

Step 6

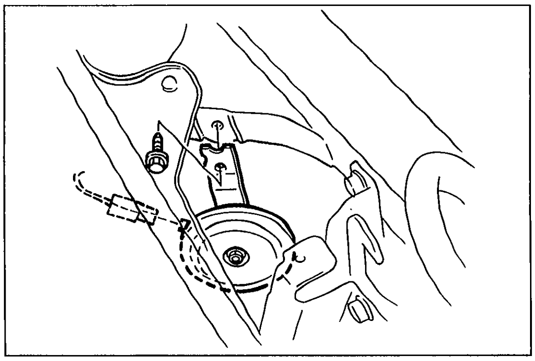
1. Ground the terminal wire (G/O) of the horn relay connector.
2. Measure the voltage at the following terminal wires of the horn relay connector.

Wire	Voltage	Action
(G/W) Terminal A	12V	Next check wire (G/W) of terminal D
	0V	Repair wire (G/W) (STOP 15A fuse — Horn relay)
(G/W) Terminal D	12V	Next check wire (G/R)
	0V	Repair wire (G/W) (STOP 15A fuse — Horn relay)
(G/R)	12V	Repair wire (G/R) (Horn relay — Horn)
	0V	Replace horn relay

REMOVAL / INSTALLATION

Horn

Remove and install as shown in the figure.



05U0TX-203

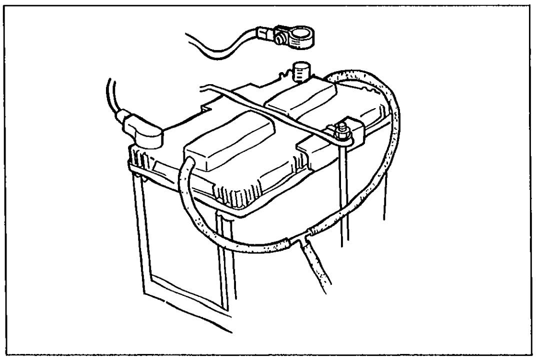
Horn Switch

U.S. spec.

Warning

- **Before removal of the air bag module, the negative battery cable must be disconnected to prevent accidental deployment of the air bag.**

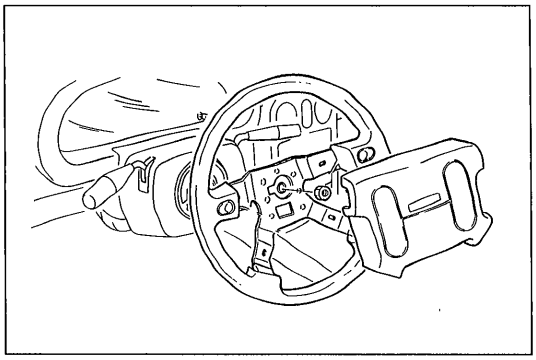
1. Disconnect the negative battery cable.
2. Remove the air bag module, then remove the steering wheel assembly.



05U0TX-204

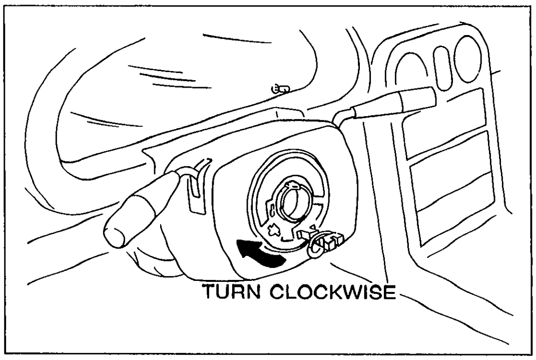
Warning

- **When carrying an air bag module, make sure the trim cover is pointed away from your body to prevent injury in the event of an accidental deployment.**
- **When placing an air bag module on any surface place it with the trim cover upward. This will reduce the motion of the module if it is accidentally deployed.**



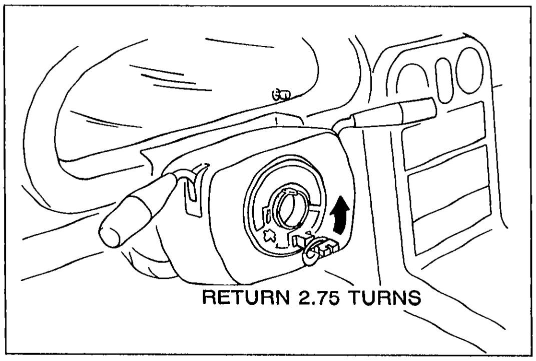
05U0TX-205

3. Before installation of the steering wheel reset the clock spring connector as follows:
   (1) Set the front wheels straight ahead.
   (2) Turn the clock spring connector clockwise until it stops.
   (3) Return 2.75 turns.

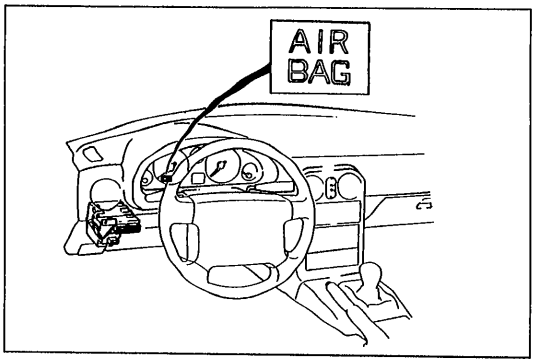


05U0TX-206

   (4) Align the marks (counterclockwise) on the clock spring connector and the outer hausing.



05U0TX-207



05U0TX-208

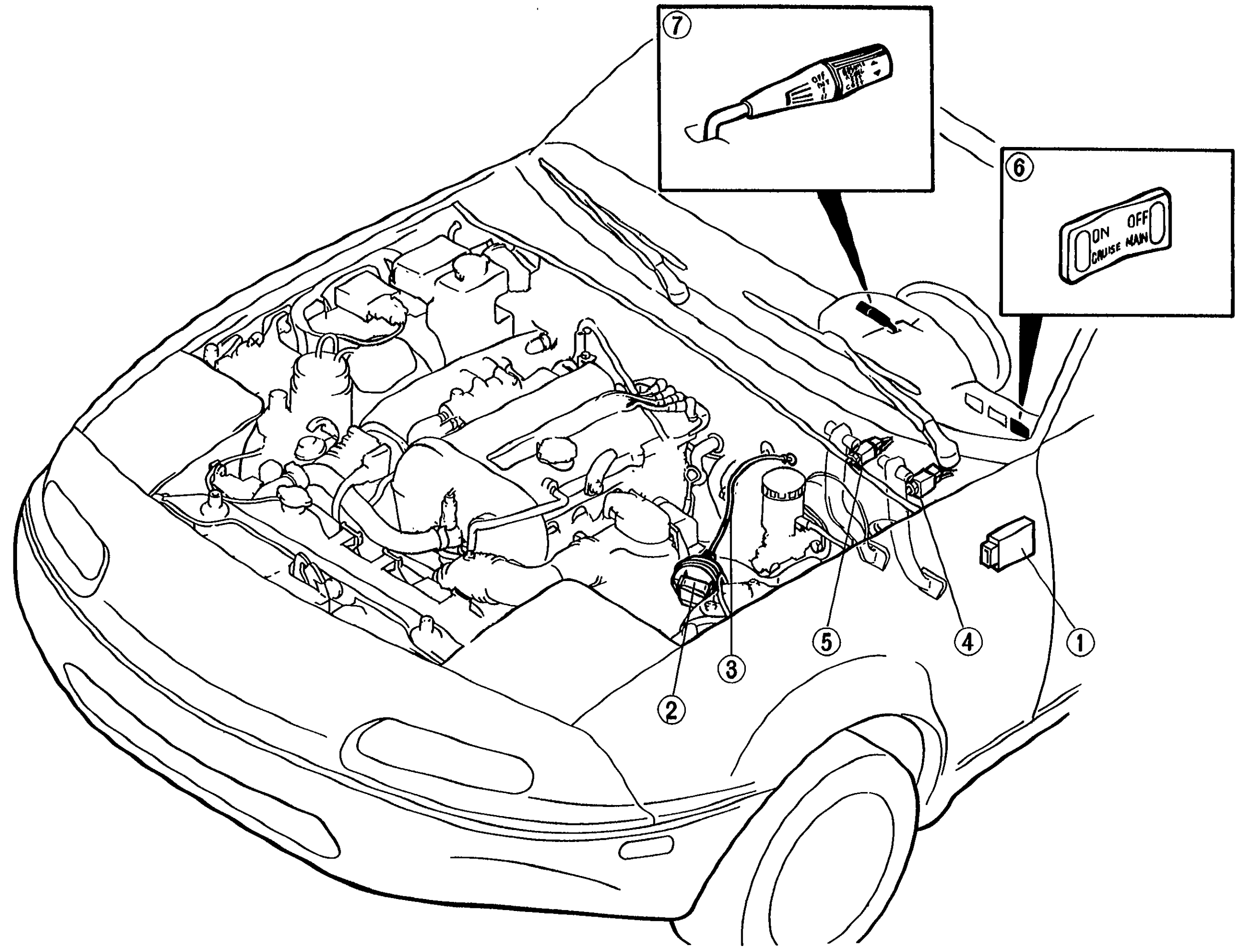
4. Install the steering wheel and the air bag module.

Warning

- **After installation of the air bag module, verify that the air bag system is operating normally by monitoring the air bag warning lamp. (Refer to page T–138.)**

CRUISE CONTROL SYSTEM

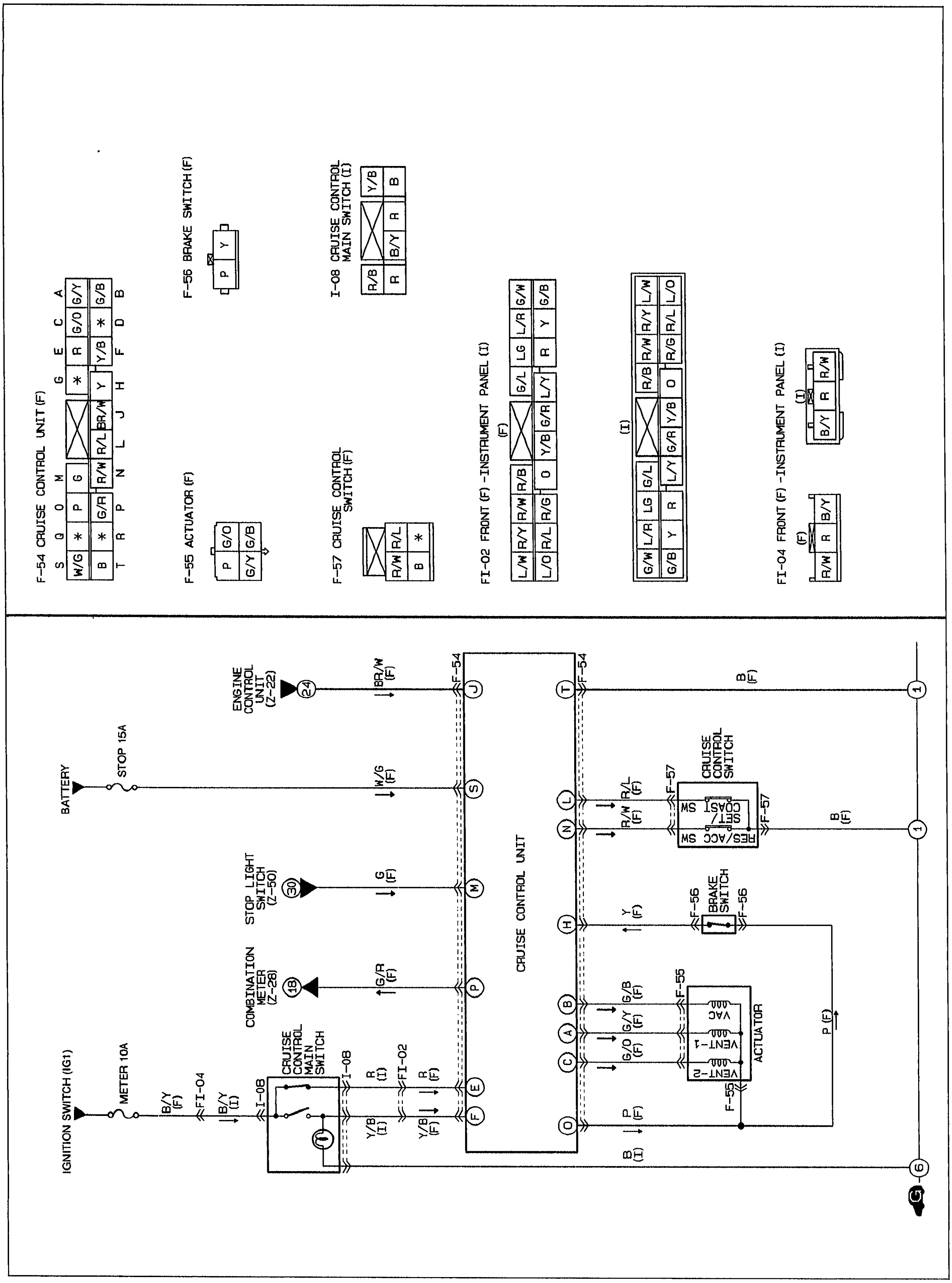
STRUCTURAL VIEW


⑦
OFF
ON
⑥
ON OFF
CRUISE MAIN
①
②
③
④
⑤

05U0TX-209

1. Cruise control unit
2. Actuator
3. Actuator cable
4. Clutch switch
5. Brake switch
6. Cruise control main switch
7. Cruise control switch

CIRCUIT DIAGRAM


F-54 CRUISE CONTROL UNIT (F)
F-55 ACTUATOR (F)
F-56 BRAKE SWITCH (F)
F-57 CRUISE CONTROL SWITCH (F)
I-08 CRUISE CONTROL MAIN SWITCH (I)
FI-02 FRONT (F) -INSTRUMENT PANEL (I)
FI-04 FRONT (F) -INSTRUMENT PANEL (I)
BATTERY
STOP 15A
IGNITION SWITCH (IG1)
METER 10A
ENGINE CONTROL UNIT (Z-22)
STOP LIGHT SWITCH (Z-50)
COMBINATION METER (Z-28)
CRUISE CONTROL MAIN SWITCH
CRUISE CONTROL UNIT
CRUISE CONTROL SWITCH
SET/COAST SW
RES/ACC SW
BRAKE SWITCH
ACTUATOR
VAC
VENT-1
VENT-2
BR/W (F)
W/G (F)
G (F)
G/R (F)
B/Y (F)
B/Y (I)
R (I)
R (F)
Y/B (I)
Y/B (F)
B (I)
B (F)
R/L (F)
R/W (F)
Y (F)
G/B (F)
G/Y (F)
G/O (F)
P (F)

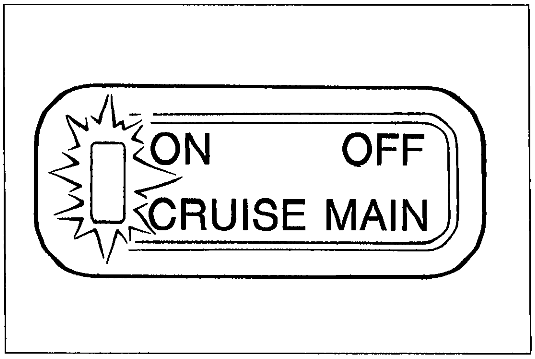
05U0TX-210

TROUBLESHOOTING

Symptom: Vehicle speed cannot be set. (Cruise control unit will not hold vehicle speed.)

Note
- **Before troubleshooting of the system, verify the following items:**
  1. **Is system being correctly used by customer?**
  2. **Is fuse OK?**
     Check the fuse. If the fuse is burned, replace it. Check the wire harness for a short circuit.

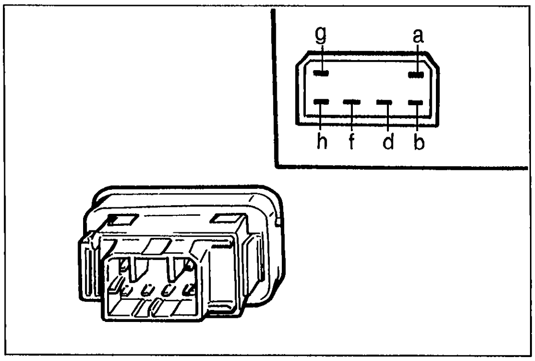
05U0TX-330



05U0TX-211

Step 1

1. Turn the ignition switch ON.
2. Turn the cruise control main switch ON.
3. Check that the main switch indicator lamp comes ON.
4. If the lamp does not come ON, go to Step 2.
5. If the lamp comes ON, go to Step 3.



05U0TX-212

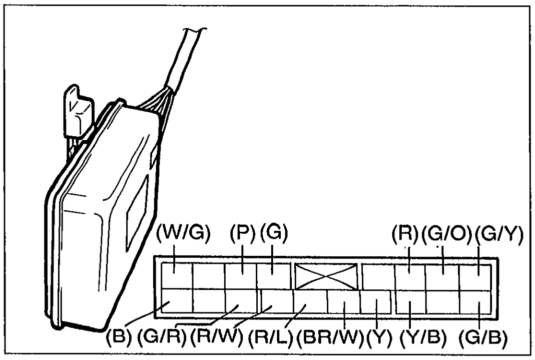
Step 2

1. Check continuity between terminals of the cruise control main switch.

Position	Terminals					
	a	b	d	f	g	h
Neutral			○—	—○	○—	—○
Off					○—	—○
On	○—	—	—○—	—○	○—	—○
		○—	—	—○		

○—○: Indicates continuity

2. If not as specified, replace the switch.
3. If the switch is OK, repair the wire harness.
   (METER 10A fuse — Cruise control main switch — Ground)



05U0TX-213

Step 3

1. Measure the voltage at the following terminal-wires of the cruise control unit connector.
2. If all terminal voltage are OK, replace the cruise control unit.

Terminal	Wire color	Connected to	Test condition	Specification	Action
a	(G/Y)	Actuator	Main switch off	0V	Go to Step 8
			Main switch on	9V	
b	(G/B)	Actuator	Main switch off	0V	
			Main switch on	9V	
c	(G/O)	Actuator	Main switch off	0V	
			Main switch on	9V	
e	(R)	Main switch	Main switch off	12V	Repair wire (R)
			Main switch off	0V	(Main switch—Cruise control unit)
f	(Y/B)	Main switch	Main switch off	0V	Repair wire (Y/B)
			Main switch on	12V	(Main switch—Cruise control unit)

(cont'd)

Terminal	Wire color	Connected to	Test condition	Specification	Action
h	(Y)	Brake switch	Brake pedal depressed	0V	Go to Step 4
			Brake pedal released	9V	
j	(BR/W)	Clutch switch	Clutch pedal depressed	0V	Go to Step 5
			Clutch pedal released	12V	
l	(R/L)	Cruise control switch (Set switch and coast switch)	Main switch ON	12V	Go to Step 6
			While pushing set switch after main switch ON	0V	
m	(G)	Stoplight switch	Brake pedal depressed	12V	Go to Step 7
			Brake pedal released	0V	
n	(R/W)	Cruise control switch (Resume switch and accel switch)	Main switch ON	12V	Go to Step 6
			While pushing resume switch after main switch ON	0V	
o	(P)	Actuator	Main switch OFF	0V	Go to Step 8
			Main switch ON	9V	
p	(G/R)	Speed sensor	While rotating rear tires	Run out between 0—5V	Go to Step 9
s	(W/G)	Battery	Constant	12V	Repair wire (W/G)

05U0TX-214

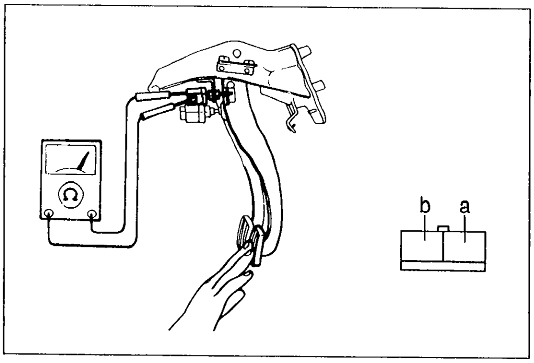
Step 4 — Inspection of brake switch

1. Disconnect the brake switch connector.
2. Check continuity between terminals of the switch.

Pedal position	Terminal	
	a	b
Pedal released	○——	——○
Pedal depressed		

○——○: Indicates continuity

3. If not as specified, replace the brake switch.
4. If the switch is OK, repair the wire harness. (Fuse — Brake switch — Control unit)



05U0TX-215

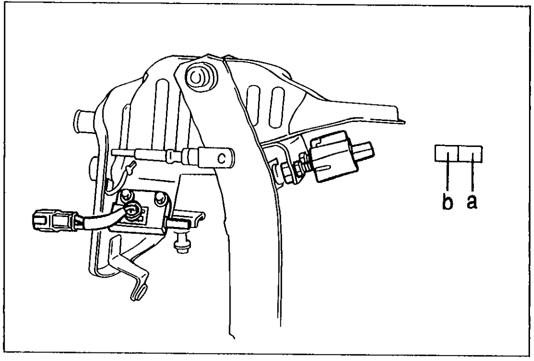
Step 5 — Inspection of clutch switch

1. Disconnect the clutch switch connector.
2. Check continuity between terminals of the switch.

Pedal position	Terminal	
	a	b
Pedal released		
Pedal depressed	○——	——○

○——○: Indicates continuity

3. If not as specified, replace the clutch switch.
4. If the switch is OK, repair the wire harness (Fuse — Clutch switch — Control unit).



05U0TX-331

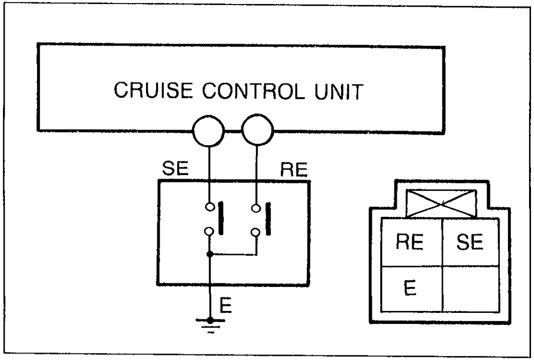
Step 6 — Inspection of cruise control switch

1. Remove the knee protector and disconnect the combination switch connector.
2. Check continuity between terminals of the combination switch connector.

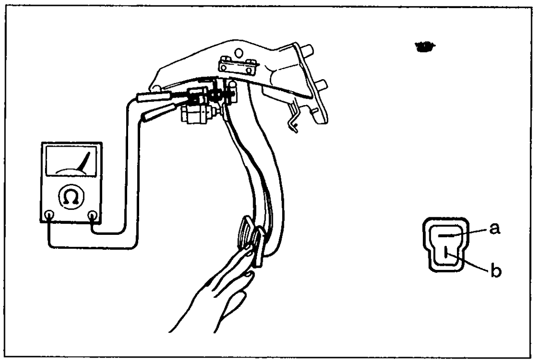
Switch	Terminal		
	SE	RE	E
SET/COAST	○——	——	——○
RESUME/ACCEL		○——	——○

○——○: Indicates continuity

3. If not as specified, replace the cruise control switch.
4. If the switch is OK, repair the wire harness. (Cruise control switch — Control unit)



05U0TX-216



05U0TX-217

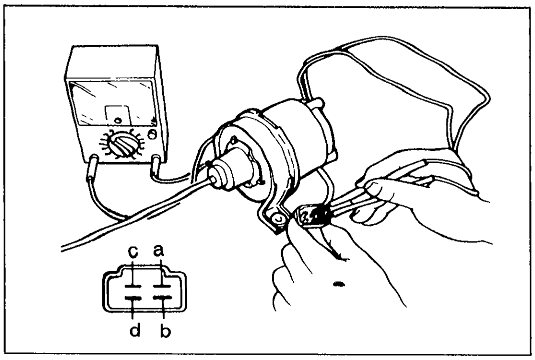
Step 7 — Inspection of stoplight switch

1. Disconnect the stoplight switch.
2. Check continuity between terminals of the switch.

Pedal position	Terminal	
	a	b
Pedal released		
Pedal depressed	○—	—○

○—○: Indicates continuity

3. If not as specified, replace the stoplight switch.
4. If the siwtch is OK, repair the wire harness. (Cruise control unit — Stoplight switch)



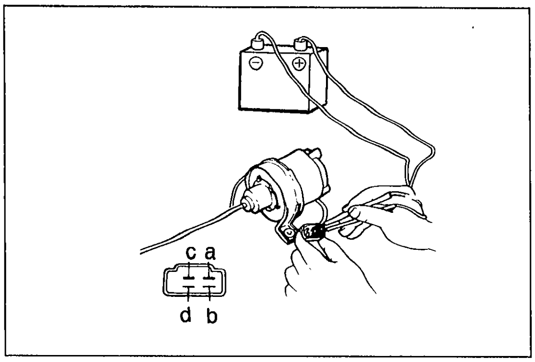
05U0TX-218

Step 8 — Inspection of actuator

1. Measure the actuator solenoid resistance using an ohmmeter.

Check terminals	Resistance
c — a	Approx. 25 to 55Ω
c — b	
c — d	

2. If not as specified, replace the actuator.
3. If continuity is OK, go to Step 8—4.
4. Disconnect the actuator cable from the accelerator pedal.
5. Run the engine at idle speed.

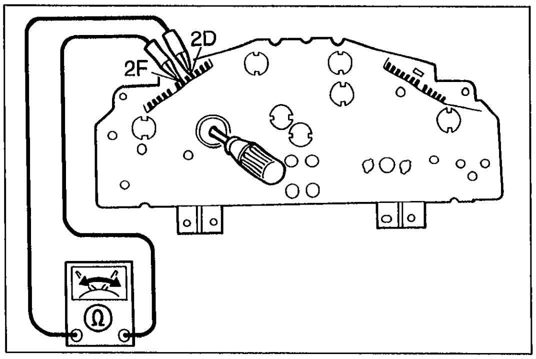


05U0TX-332

6. Apply 12V to the following terminals, and check actuator operation.

Order	Terminal condition				Operation of control cable
	a	b	c	d	
1	Ground	Ground	Power	Ground	Pull
2	Ground	—	Power	Ground	Hold
3	Ground	—	Power	—	Extend
4	—	—	—	—	Release

7. If not as specified, replace the actuator.



05U0TX-219

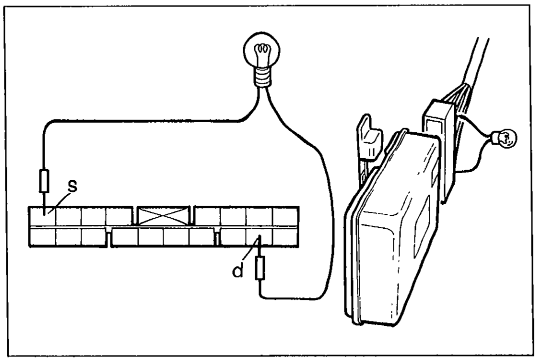
Step 9 — Inspection of speed sensor

1. Remove the instrument cluster.
2. Check continuity between terminals 2D and 2F while rotating the speedometer cable.
3. If there are not four pulses per shaft rotation, replace the speed sensor. (Refer to page T–33.)
4. If there are four pulses per rotation, check the wire harness (Instrument cluster — Control unit).
5. If the wiring is OK, replace the cruise control unit.

INSPECTION OF CRUISE CONTROL SYSTEM USING SELF-DIAGNOSTIC FUNCTION

Inspection of the cruise control system may also be done by using the self-diagnostic function integrated in the control unit and using a test light.

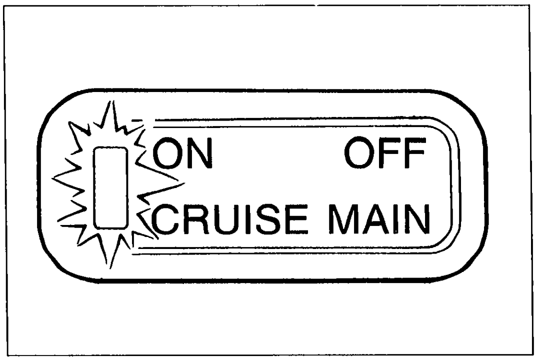
05U0TX-220



05U0TX-221

Preparation

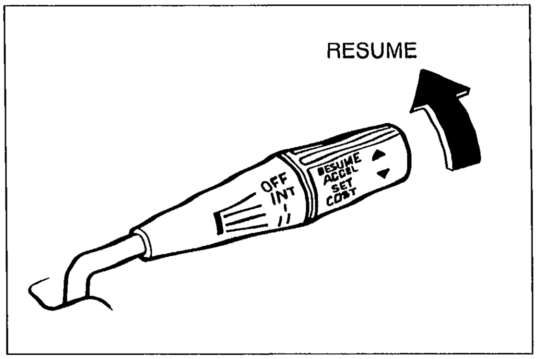
1. Disconnect the cruise control unit connector.
2. Connect a test light between terminals d and s of the cruise control unit connector as shown.
3. Reconnect the cruise control unit connector.



05U0TX-222

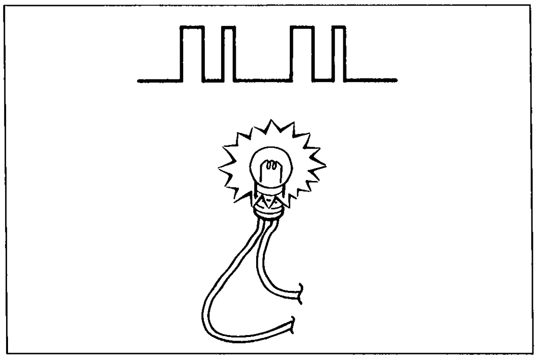
Inspection

1. Turn the ignition switch ON.
2. Turn the cruise main switch ON.



05U0TX-223

3. Turn the cruise control switch to RESUME and hold it more than 3 seconds.
4. Release the switch.
5. The self-diagnostic function is now activated.



05U0TX-224

6. Read out and record the condition and operation code number(s) of the test light. (Refer to page T–104.)
7. Turn the main switch OFF to deactivate the self-diagnostic function. (The self-diagnostic function will also be canceled if the vehicle is driven at over 16 km/h (10mph)).
8. Check the system as per the results of the self-diagnostic test.

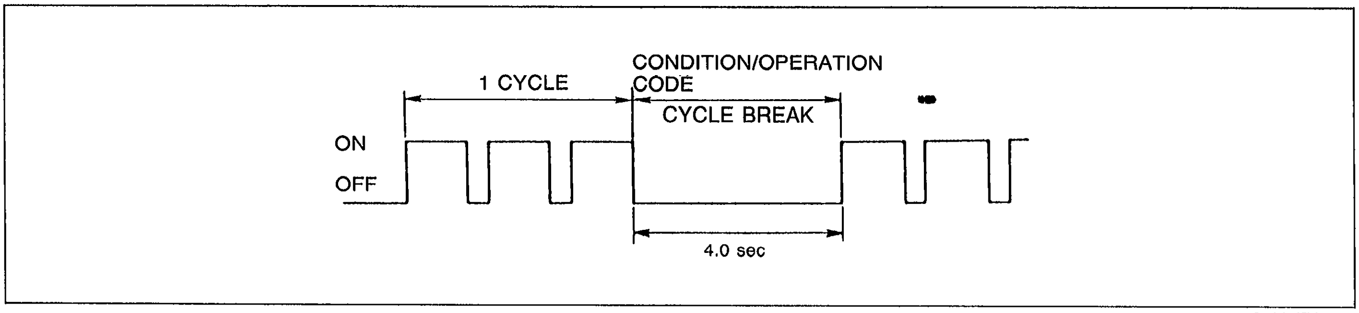
Principle of code cycle

Condition and operation codes are determined by flashing of the CRUISE indicator as shown below.

05U0TX-225

1. Code cycle break

The time between condition/operation code cycles is 4.0 seconds (the time the lamp is off).

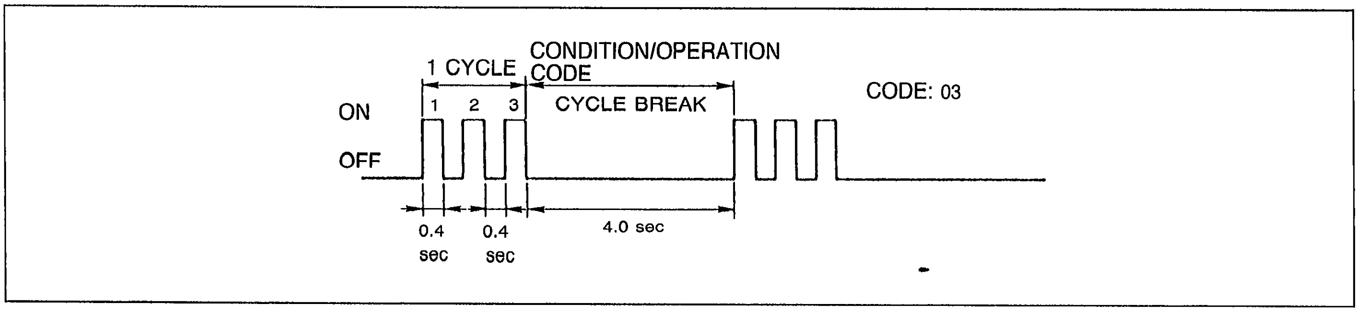


CONDITION/OPERATION CODE
1 CYCLE
CYCLE BREAK
ON
OFF
4.0 sec

97U0TX-188

2. Second digit of condition/operation code (ones position)

The digit in the ones position of the condition/operation code represents the number of times the lamp is on 0.4 second during one cycle.



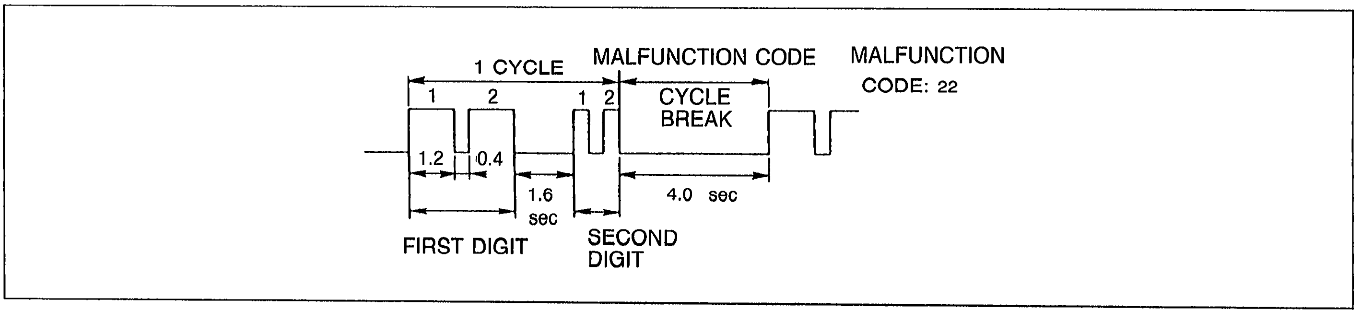
CONDITION/OPERATION CODE
1 CYCLE
1 2 3
CYCLE BREAK
CODE: 03
ON
OFF
0.4 sec
0.4 sec
4.0 sec

97U0TX-189

3. First digit of condition/operation code (tens position)

The digit in the tens position of the condition/operation code represents the number of times the lamp is on 1.2 seconds during one cycle.

The lamp remains off for 1.6 seconds between the long and short flashes.

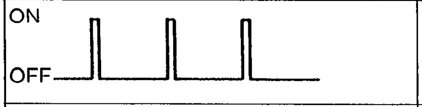
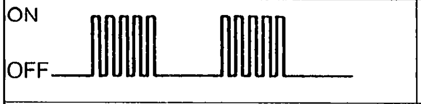
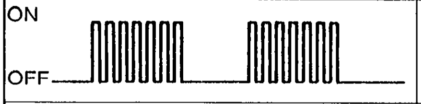
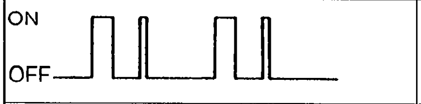
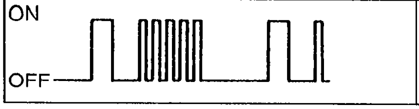


1 CYCLE
MALFUNCTION CODE
MALFUNCTION CODE: 22
1 2
1 2
CYCLE BREAK
1.2
0.4
1.6 sec
4.0 sec
FIRST DIGIT
SECOND DIGIT

97U0TX-190

Condition/operation code numbers

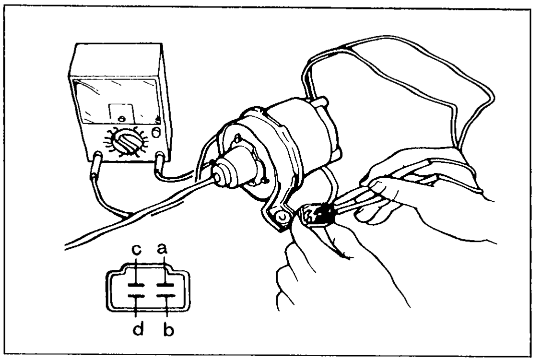
The test light will flash if a malfunction is present.

Pattern of output signal (CRUISE indicator lamp)	Code No.	Possible Cause	Action
	01	Defective wiring or ground Defective actuator Defective brake switch	Repair harness Inspect actuator (See below)
	05	STOP 15A fuse blown	Replace fuse
	07	Both stoplight switch and brake switch (for vehicle and cruise) are ON simultaneously	Inspect stoplight switch and brake switch (Refer to pages T–61 and T–107)
	11	Defective cruise control switch	Inspect cruise control switch (Refer to page T–107)
	15	Defective cruise control unit	Go to troubleshooting (Refer to page T–99)

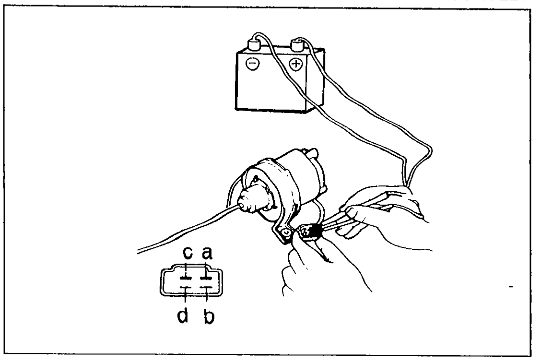
05U0TX-226

Note

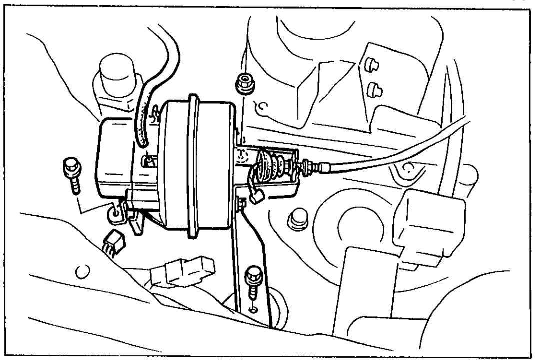
- **If there is more than one malfunction, the code numbers will be indicated in numerical order lowest number first.**



05U0TX-227



05U0TX-459



9MU0TX-262

ACTUATOR

Inspection

1. Measure the actuator solenoid resistance using an ohmmeter.

Check terminals	Resistance
c — a	Approx. 25 to 55Ω
c — b	
c — d	

2. If not as specified, replace the actuator.
3. Disconnect the actuator cable from the accelerator pedal.
4. Run the engine at idle speed.
5. Apply battery voltage to the following terminals, and check the actuator operation.

Order	Terminal condition				Operation of control cable
	a	b	c	d	
1	Ground	Ground	Power	Ground	Pull
2	Ground	—	Power	Ground	Hold
3	Ground	—	Power	—	Extend
4	—	—	—	—	Release

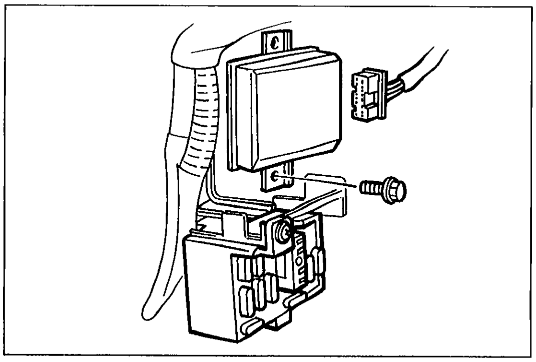
6. If not as specified, replace the actuator.

Removal

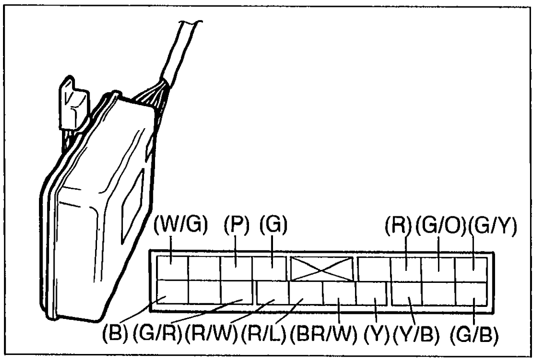
1. Disconnect the accelerator cable and vacuum hose from the actuator.
2. Remove the bolt and nuts and the actuator.

Installation

Install in the reverse order of removal.



9MU0TX-268



05U0TX-333

CRUISE CONTROL UNIT

Removal

1. Remove the passenger side kick panel.
2. Remove the nut and the control unit.

Installation

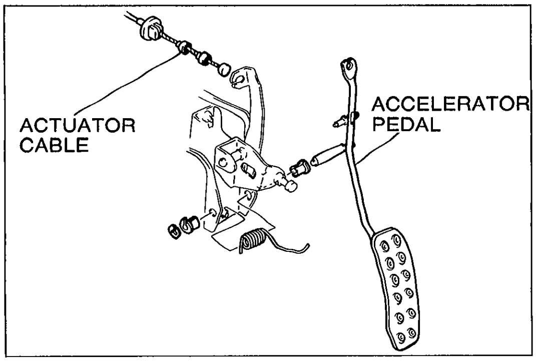
Install in the reverse order of removal.

Inspection

1. Check the terminal voltages of the control unit.
2. If the terminal voltages are correct, replace the control unit.

Terminal	Wire color	Connected to	Test condition	Specification	Action
a	(G/Y)	Actuator	Main switch OFF	0V	Check actuator (Refer to page T–104)
			Main switch ON	9V	
b	(G/B)	Actuator	Main switch OFF	0V	
			Main switch ON	9V	
c	(G/O)	Actuator	Main switch OFF	0V	
			Main switch ON	9V	
e	(R)	Main switch	Main switch OFF	12V	Check main switch (Refer to page T–107)
			Main switch ON	0V	
f	(Y/B)	Main switch	Main switch OFF	0V	
			Main switch ON	12V	
h	(Y)	Brake switch	Brake pedal depressed	0V	Check brake switch (Refer to page T–107)
			Brake pedal released	9V	
j	(BR/W)	Clutch switch	Clutch pedal depressed	0V	Check clutch switch (Refer to page T–106)
			Clutch pedal released	12V	
l	(R/L)	Cruise control switch (Set switch and Coast switch)	Main switch ON	12V	Check cruise control switch (Refer to page T–107)
			While pushing set switch Main switch ON	0V	
m	(G)	Stoplight switch	Brake pedal depressed	12V	Check stoplight switch (Refer to page T–61)
			Brake pedal released	0V	
n	(R/W)	Cruise control switch (Resume switch and Accel switch)	Main switch ON	12V	Check cruise control switch (Refer to page T–107)
			While pushing resume switch Main switch ON	0V	
o	(P)	Actuator	Main switch OFF	0V	Check actuator (Refer to page T–104)
			Main switch ON	9V	
p	(G/R)	Speed sensor	While rotating rear tires	Cycles 0—5V	Check speed sensor (Refer to page T–107)
s	(W/G)	Battery	Constant	12V	Repair wire

05U0TX-228

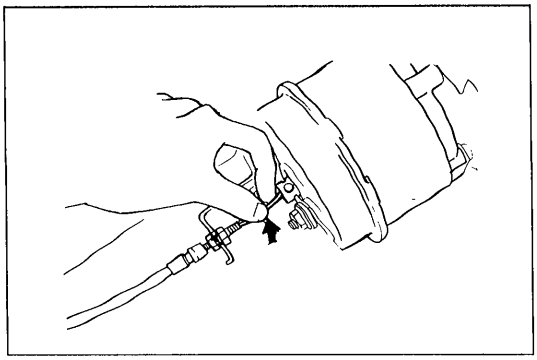


9MU0TX-263

ACTUATOR CABLE

Removal

1. Disconnect the actuator cable from the accelerator pedal.
2. Remove the clamp at the inside of the firewall.

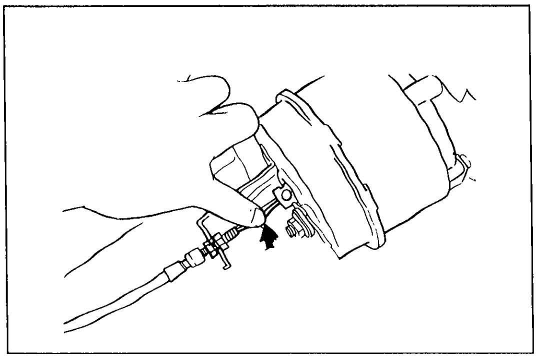


9MU0TX-264

3. Disconnect the actuator cable from the actuator.
4. Remove the clamps and the actuator cable.

Installation

Install in the reverse order of removal.

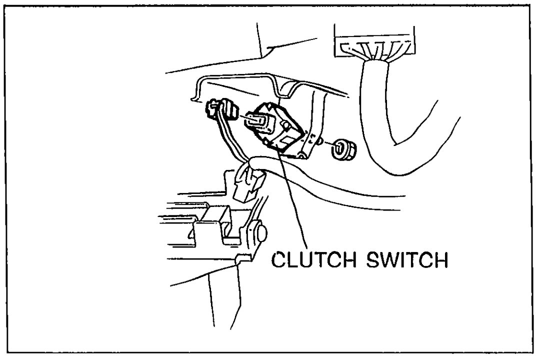


9MU0TX-265

Adjustment

Remove the clamp and adjust the nut so that actuator cable free play is as shown when the cable is pressed lightly.

Cable play: 1—3mm (0.04—0.12 in)



05U0TX-460

CLUTCH SWITCH

Removal

Loosen the locknut and remove the switch.

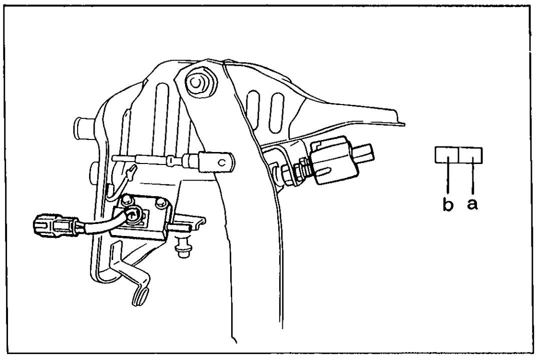
Installation

Install in the reverse order of removal.

Adjustment

Adjust the switch to set the specified pedal height.

Pedal height: 175—185mm (6.89—7.82 in)
Pedal freeplay: 0.6—3.1mm (0.02—0.12 in)



05U0TX-229

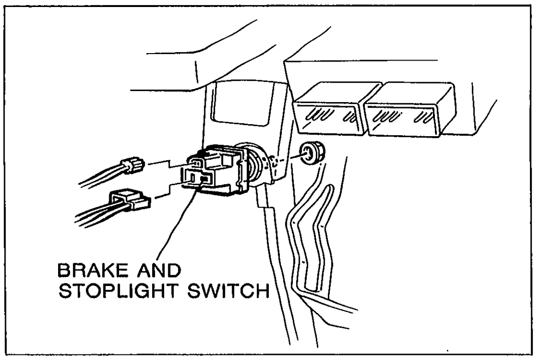
Inspection

1. Disconnect the clutch switch connector.
2. Check continuity between terminals of the switch.

Pedal position	Terminal	
	a	b
Pedal released		
Pedal depressed	○—	—○

○—○: Indicates continuity

3. If not as specified, replace the clutch switch.



05U0TX-461

BRAKE SWITCH

Removal

Loosen the locknut and remove the switch.

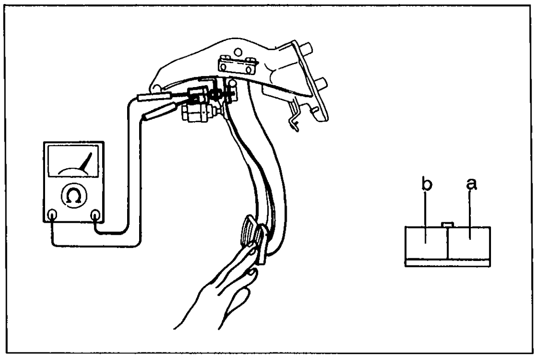
Installation

Install in the reverse order of removal.

Adjustment

Adjust the switch to set the specified pedal height.

Pedal height: 171—181mm (6.93—7.13 in)
Pedal free play: 4—7mm (0.16—0.28 in)



05U0TX-230

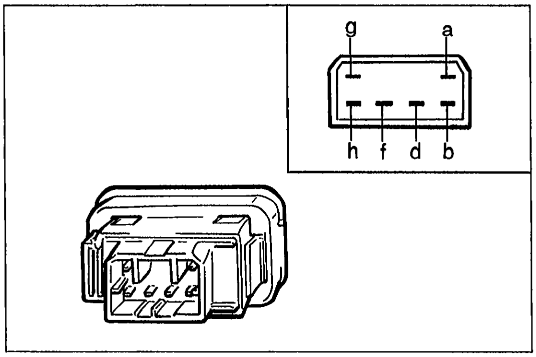
Inspection

1. Disconnect the brake switch connector.
2. Check continuity between terminals of the switch.

Pedal position	Terminal	
	a	b
Pedal released	O——	——O
Pedal depressed		

O——O: Indicates continuity

3. If not as specified, replace the brake switch.
4. If the switch is OK, repair the wire harness (Fuse — Brake switch — Control unit).



05U0TX-231

CRUISE CONTROL MAIN SWITCH

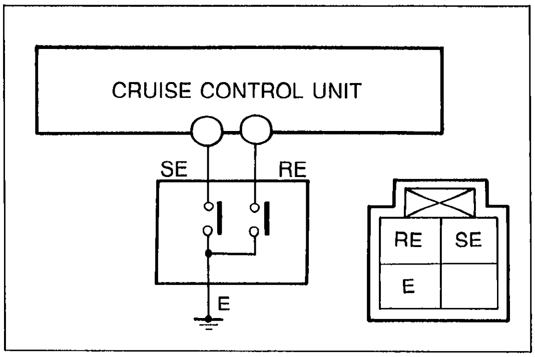
Inspection

1. Check continuity between terminals of the cruise control main switch.

Position	Terminal					
	a	b	d	f	g	h
Neutral			O—	—O	O—	—O
Off					O—	—O
On	O—	—— O—	—O— ——	—O —O	O—	—O

O——O: Indicates continuity

2. If not as specified, replace the cruise control main switch.



05U0TX-232

CRUISE CONTROL SWITCH

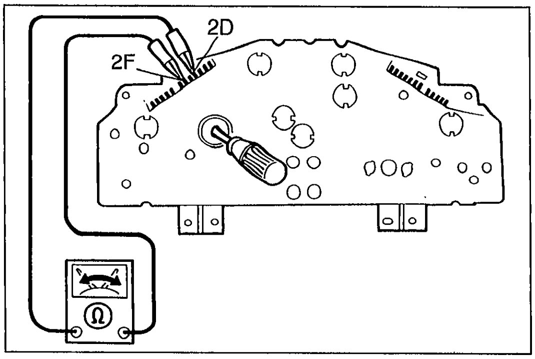
Inspection

1. Remove the knee protector and disconnect the combination switch connector.
2. Check continuity between terminals of the combination switch connector.

Switch	Terminal		
	SE	RE	E
SET/COAST	O——	———	——O
RESUME/ACCEL		O——	——O

O——O: Indicates continuity

3. If not as specified, replace the cruise control switch.



05U0TX-233

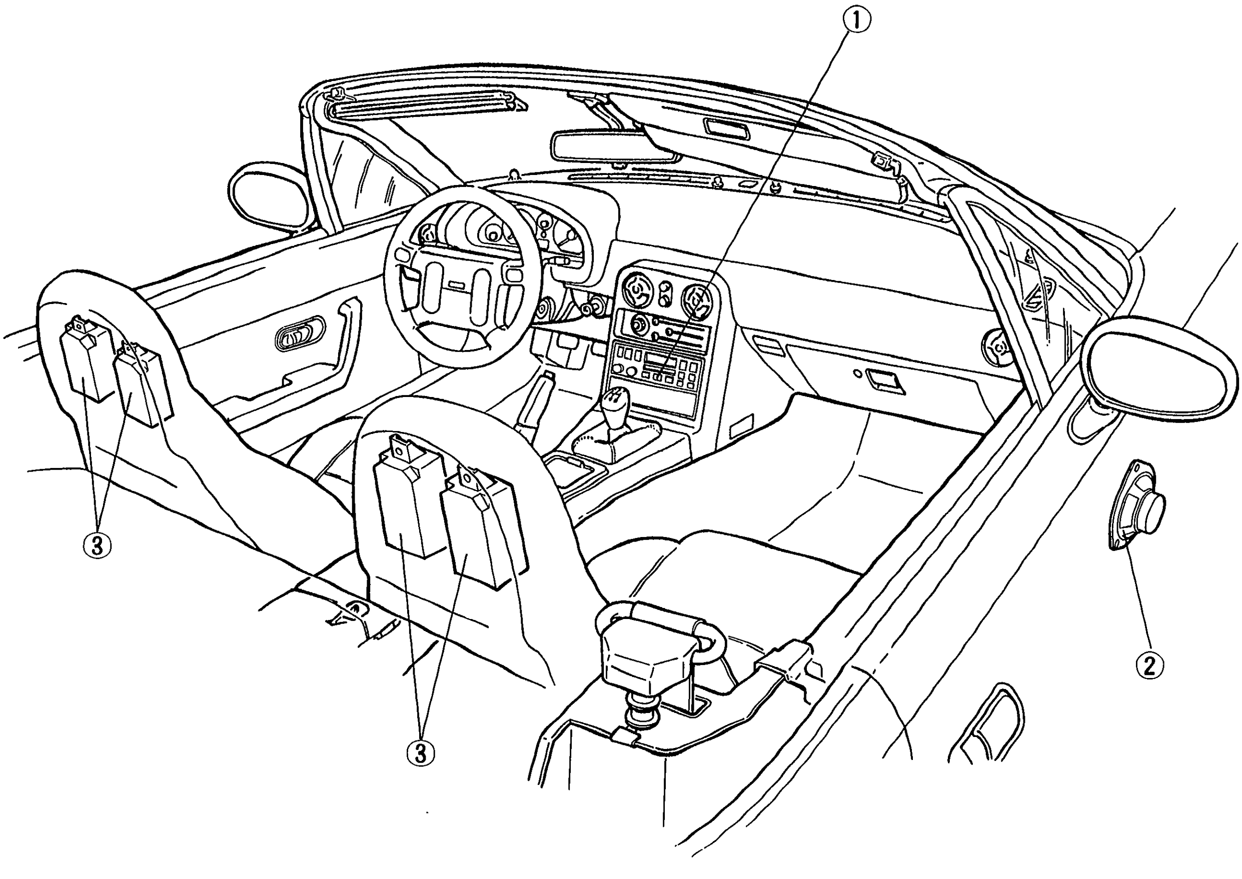
SPEED SENSOR

Inspection

1. Remove the instrument cluster.
2. Check continuity between terminals 1L and 2A while rotating the speedometer cable.
3. If there are not four pulses per shaft rotation, replace the speed sensor. (Refer to page T–33.)

AUDIO

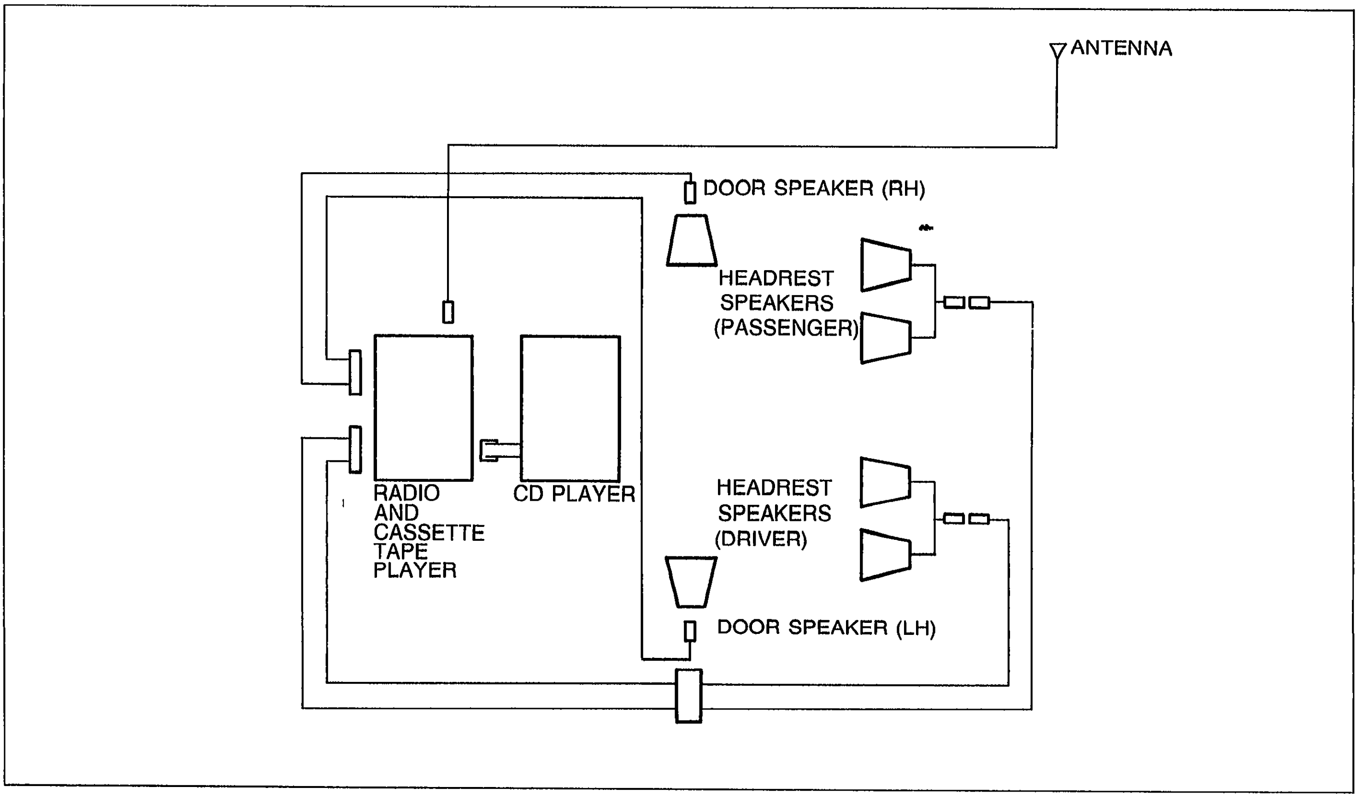
STRUCTURAL VIEW



05U0TX-234

1. Audio unit
2. Door speakers
3. Headrest speakers

SYSTEM DIAGRAM


ANTENNA
DOOR SPEAKER (RH)
HEADREST SPEAKERS (PASSENGER)
RADIO AND CASSETTE TAPE PLAYER
CD PLAYER
HEADREST SPEAKERS (DRIVER)
DOOR SPEAKER (LH)

05U0TX-235

FEATURES

This new audio system was developed especially for the Mazda MX-5 Miata.
The main features are described below.

1. Anti-theft System

To deter theft of the audio unit, the system is designed to accept a code number that makes the audio unit inoperable if it is removal from the vehicle and then reconnected without inputting the correct code number.

When the anti-theft system is activated, the unit will not operate and code will flash on the display until the correct code is input.

Caution

- **If the vehicle's battery is disconnected, the anti-theft system is activated.**
- **Three consective errors in inputting a code number to a unit that has had the anti-theft system activated will render the unit completely inoperable. It must then be replaced.**

2. Headrest Speaker

Headrest speakers are available.

3. Preset Memory

A total of 18 broadcasting stations on AM, FM1, and FM2 bands can be quickly and easily set.

4. Automatic Memory

By using the automatic memory function, which is independent from the preset memory, station selections can be easily made in an area where the broadcasting station frequencies are not known.

5. Clock

The clock display is incorporated within the audio display.

6. Metal Tape Automatic Detection

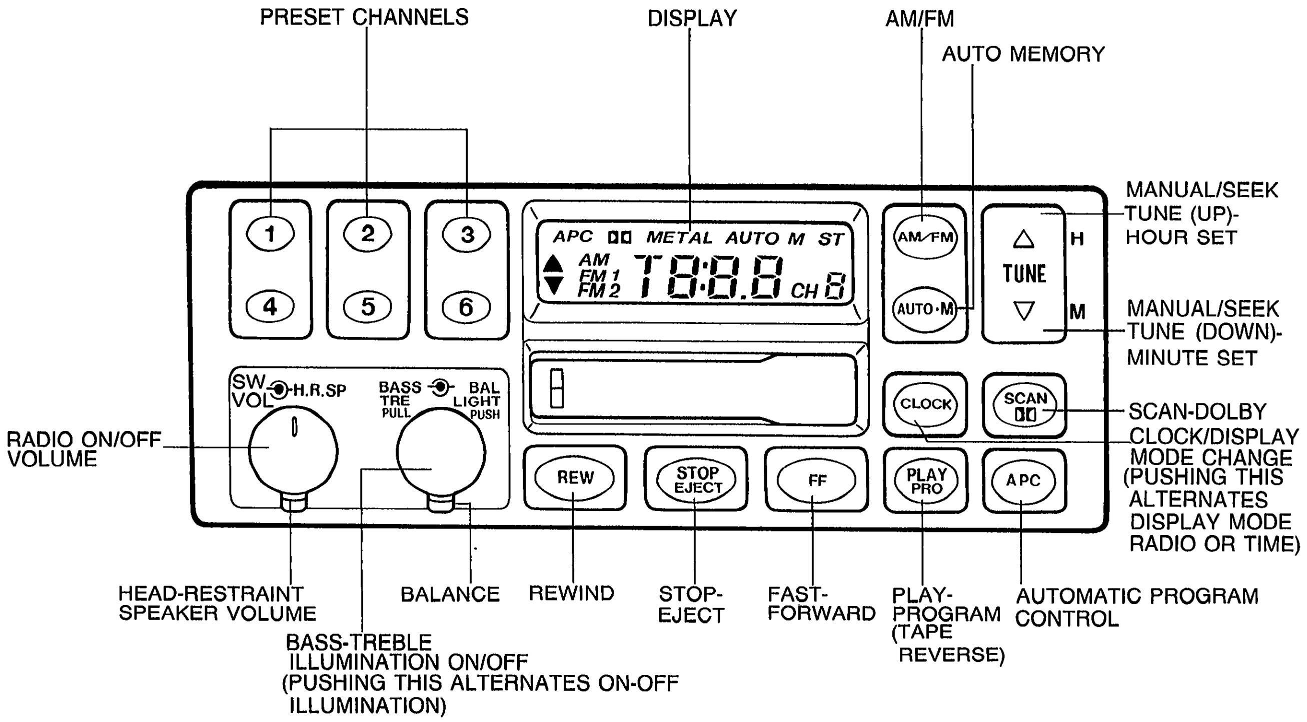
The tape player automatically detects the use of metal tape and automatically internal adjustments for metal tape playback. The word "METAL" is shown on the display.

7. Illumination Lamps

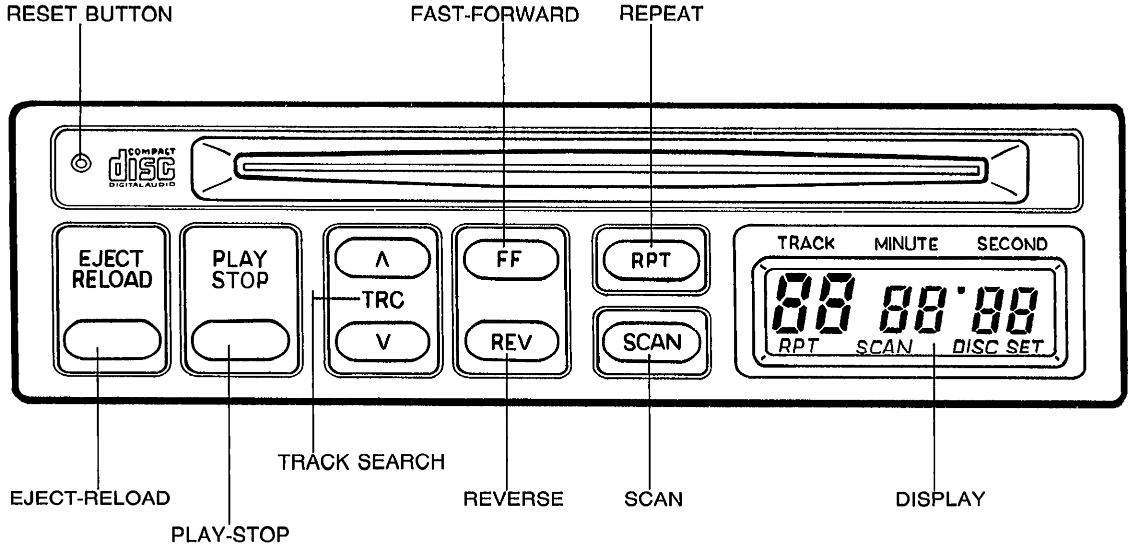
The unit's illumination can be switched ON or OFF as desired.

FUNCTION AND OPERATING PROCEDURE

RADIO AND CASSETTE TAPE PLAYER


PRESET CHANNELS
DISPLAY
AM/FM
AUTO MEMORY
MANUAL/SEEK TUNE (UP)-HOUR SET
MANUAL/SEEK TUNE (DOWN)-MINUTE SET
SCAN-DOLBY
CLOCK/DISPLAY MODE CHANGE (PUSHING THIS ALTERNATES DISPLAY MODE RADIO OR TIME)
RADIO ON/OFF VOLUME
HEAD-RESTRAINT SPEAKER VOLUME
BALANCE
REWIND
STOP-EJECT
FAST-FORWARD
PLAY-PROGRAM (TAPE REVERSE)
AUTOMATIC PROGRAM CONTROL
BASS-TREBLE ILLUMINATION ON/OFF (PUSHING THIS ALTERNATES ON-OFF ILLUMINATION)
1
2
3
4
5
6
APC
METAL
AUTO M
ST
AM
FM 1
FM 2
CH
AM/FM
AUTO·M
TUNE
H
M
SW VOL
H.R.SP
BASS TRE PULL
BAL LIGHT PUSH
CLOCK
SCAN
REW
STOP EJECT
FF
PLAY PRO
APC

COMPACT DISC (CD) PLAYER


RESET BUTTON
FAST-FORWARD
REPEAT
COMPACT disc DIGITAL AUDIO
EJECT RELOAD
PLAY STOP
TRC
FF
REV
RPT
SCAN
TRACK
MINUTE
SECOND
RPT
SCAN
DISC SET
EJECT-RELOAD
PLAY-STOP
TRACK SEARCH
REVERSE
SCAN
DISPLAY

05U0TX-236

Note

- **Five seconds after completing an operation that is shown on the display, the indicator returns to clock mode.**

Radio

Function	Operation and procedure	Display
To turn radio ON or OFF	• Press VOLUME to turn ON • Press VOLUME again to turn OFF	AM, FM1, or FM2 and frequency will be displayed
To adjust volume	• Turn VOLUME to adjust	
Treble control	• Pull BASS/TREBLE • For more highs, turn BASS/TREBLE clockwise • For less highs, turn BASS/TREBLE counterclockwise	
Bass control	• Press BASS/TREBLE • For more lows, turn BASS/TREBLE clockwise • For less lows, turn BASS/TREBLE counterclockwise	
Balance control	• To shift sound to left, turn BALANCE clockwise • To shift sound to right, turn BALANCE counterclockwise	
Headrest speaker control	• To increase volume, turn H.R.SP clockwise	
Band selector	• To chose either AM or FM, press AM/FM (Pressing AM/FM alternates AM, FM1 and FM2)	AM, FM1 or FM2 and frequency will be displayed
Manual tuning	• To manually tune station, press △ for higher frequency and press ▽ for lower frequency	
Seek tuning	• To seek tune station, press △ or ▽ for more than one second	
Scan tuning	• Press SCAN to automatically sample strong stations (Scanning stops at each station for about five seconds) • To hold station, press SCAN again during five second interval	
Channel preset tuning	To set frequency • To select band, press AM/FM • To set station, press one channel number, and hold it until beep is heard To tune preset channel • Press desired channel preset button	
Auto memory tuning	To set frequency • Press and hold AUTO M for about two seconds To tune automemory station • Press and release AUTO M	

05U0TX-237

Cassette Tape Player

Function	Operation and procedure	Display
Playing/Stopping tape	• Insert cassette tape through cassette slot, open-edge to right (System automatically switches to tape operation) • At end of tape, system will automatically reverse tape play • To stop tape play during playback without ejecting it, press STOP/EJECT (Tape will be in pause mode) • To restart tape play, press STOP/EJECT again • To play tape directly from radio/compact disc mode, press PLAY/PRO (while tape is inserted)	
Ejecting tape/Fast forward/ Rewind	• To eject tape, press STOP/EJECT • To fast forward tape, push FF; to stop it, press STOP/EJECT or PLAY/PRO • To rewind tape, press REW; to stop it, press STOP/EJECT or PLAY/PRO	
APC (Automatic program control)	• To search for beginning of present or next program, press APC then FF (for next program) or REW (for present)	

Cassette Tape Player (cont'd)

Function	Operation and procedure	Display
Tape direction change	• To change tape-playing direction, press PLAY/PRO	
Dolby B noise reduction	• Press when using tape encoded with Dolby NR	

05U0TX-238

Compact Disc (CD) Player

Caution

- **The CD player cannot play 8 cm (3.1 in) CDs. The smaller CD may dislodge from the adapter and damage the disc or the player. Use only standard 12 cm (4.7 in) CDs.**

Function	Operation and procedure	Display
Disc insert	• Push disc, label-side up, into slot. Auto-loading mechanism will take over to set disc and begin play **Note** **There will be short lapse of time between time disc is set and play begins. This is because period of time is necessary for disc player to read digital signal on disc. When CD is pressed while disc is being played, play will pause. Play will resume when CD is pressed again**	
Stopping/Playing CD	• To stop CD play during playback without ejecting it, press PLAY/STOP (CD will be in pause mode) • To start playing CD again, press PLAY/STOP again • To play loaded CD directly from radio or tape mode, press PLAY/STOP	
Ejecting/Reloading CD	• To eject CD, press EJECT/RELOAD • To reload ejected CD, press EJECT/RELOAD again	
Fast forward/reverse	• To fast forward program, press FF • To reverse program, press REW	
Repeat play	• To listen to program repeatedly, press RPT during play of selection to be repeated	
Music scan	• To scan play, press SCAN • To cancel scan play, press SCAN again	
Track search	• To search program tracks, press ∧ (for forward) or ∨ (for reverse)	

05U0TX-239

Clock

Note

- **The clock can be set while radio or tape/CD player is ON.**

Function	Operation and procedure
Time display	Time is normally displayed. Pushing CLOCK will automatically display current radio frequency or mode for approx. five seconds before reverting to time mode.
Setting clock	To adjust time, press CLOCK for approx. two seconds, current time will flash To advance hours, press △ , to advance minutes, press ▽ **Note** **If time is not adjusted while clock's current time is flashing (if neither △ nor ▽ is pressed) and CLOCK is pressed second time, minutes will be set to 00.** **If clock's current time setting is within latter part of hour (from 30 to 59 min) hour setting will automatically advance one hour.** To resume normal display, press CLOCK again

05U0TX-240

Anti-theft System

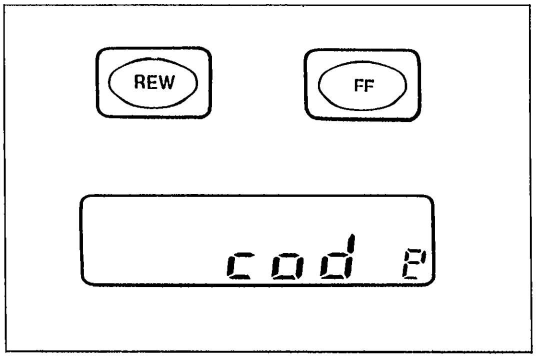
Note

- **The anti-theft system is activated if the electrical power source is ever disconnected from the audio unit. When the system is activated, the audio unit will not operate when reconnected to a power supply, and CODE will flash on the display unit the correct code number is input. If the anti-theft system is activated, reset the unit as described; refer to "If anti-theft system is activated".**
- **The anti-theft system is activated in the following conditions;**
  1. **Negative battery cable is disconnected.**
  2. **Battery is discharged.**
  3. **Audio unit connectors are disconnected.**

05U0TX-241

Setting procedure

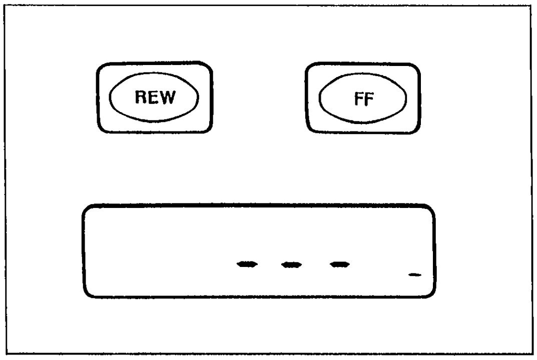
1. Turn the audio unit off with the ignition switch ACC.
2. Push REW and FF simultaneously for approximately 2 seconds until CODE is on the display.



05U0TX-242

3. Again push REW and FF while CODE is displayed (within 10 seconds). The display will exhibit bars.

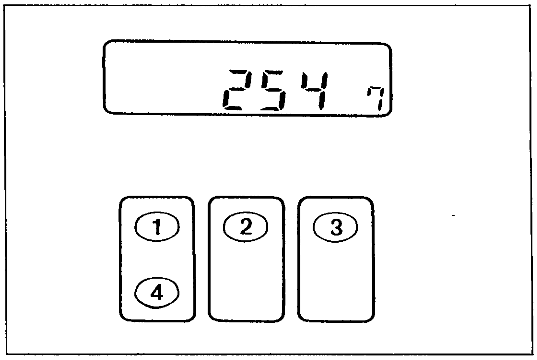
   Note
   - **Record the personal code number before attempting to input it.**



05U0TX-243

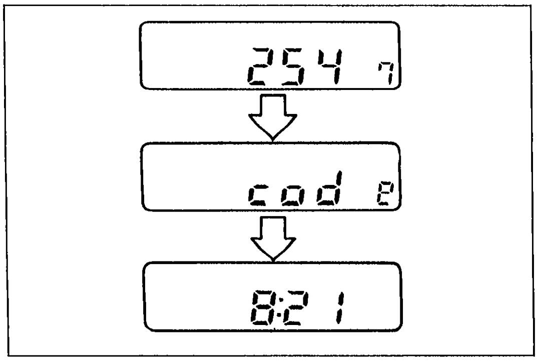
4. While the bars are displayed, input the personal code number by pressing preset channel buttons 1, 2, 3 and 4. Press 1 for the first digit, 2 for the second, 3 for the third, and 4 for the last digit.
   ex. Setting 2547
   Press 1 three times, 2 six times. 3 five times and 4 eight times.

   Note
   - **If the display returns to time while inputing, begin from the Step 1.**

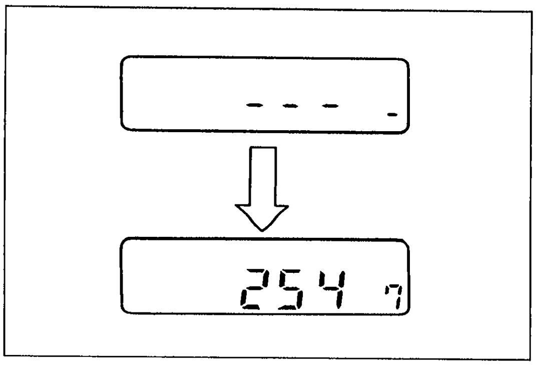


05U0TX-244

5. With the code number is displayed, press REW and FF approximately 2 seconds until a beep is heard and CODE begin to flash.
6. After approximately 5 seconds, the display will change to time. This indicates the system is set.



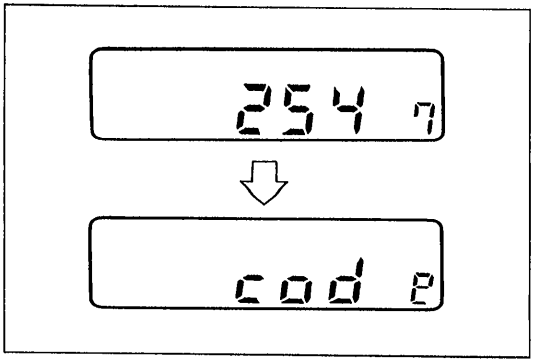
05U0TX-245



05U0TX-334

Canceling code number

1. Begin with the audio unit off and the ignition switch in ACC position (time displayed).
2. Press REW and FF simultaneously for approximately 2 seconds unit CODE is displayed and flashes.
3. Again press REW and FF while CODE is flashing (within 10 seconds). The display will exhibit bars.
4. While the bars are displayed, input the current code number as described in setting procedure Step 4. (2547, for example).

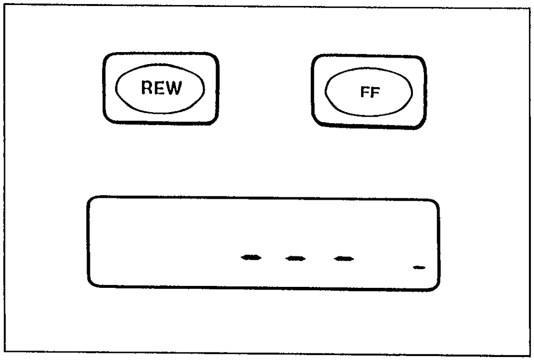


05U0TX-335

5. With the code number on the display, press REW and FF for approximately 2 seconds until a beep is heard and CODE appears.
   After 5 seconds, CODE will disappear and the clock mode will appear. This indicates the code number is canceled.

Note
- **If Err appears on the display, begin from Step 1.**

If anti-theft system is activated

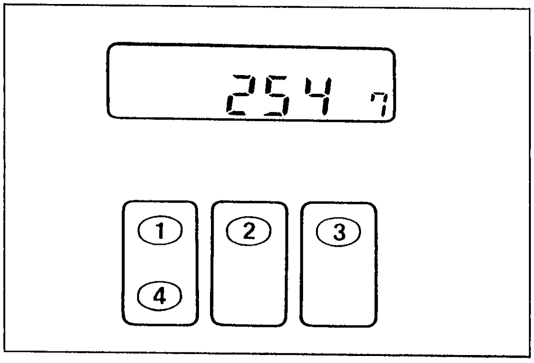


05U0TX-246

Note
- **If the anti-theft system is activated, CODE appear on the display until previous code number is inputted.**

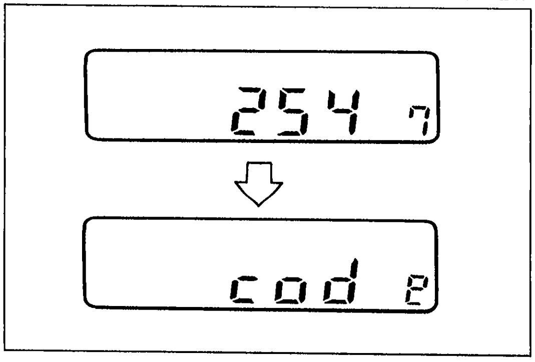
To deactivable anti-theft system

1. Push REW and FF until bars are displayed.



05U0TX-247

2. While bars are displayed, input the code number as described in setting procedure.



05U0TX-248

3. Push REW and FF approximately 2 seconds until a beep is heard CODE is and displayed. CODE will flash for 5 seconds then disapears to indicate that the system is operable.
4. If Err (error) appears, try again from Step 1.

Note
- **Three consecutive error will activate the anti-theft system, and the audio unit will be completely inoperable.**
- **Have the audio unit changed at listed panasonic service Co.**

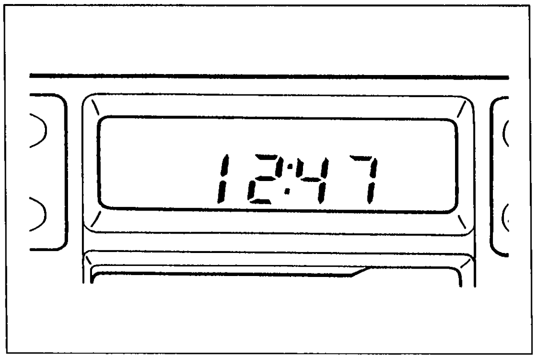
TROUBLESHOOTING

Symptom: Speaker(s) do not operate.
(Without headrest speakers.)

Note

- **Before troubleshooting, verify that the customer is using the audio system correctly. If not, advise or instruct in him/her the proper operating procedure. (Refer to page T–110.)**

05U0TX-249

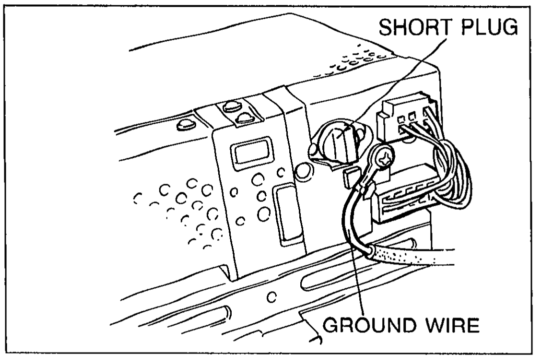


05U0TX-250

Step 1

Check if the anti-theft system has been activated. Turn the ignition switch to ACC and note the display.

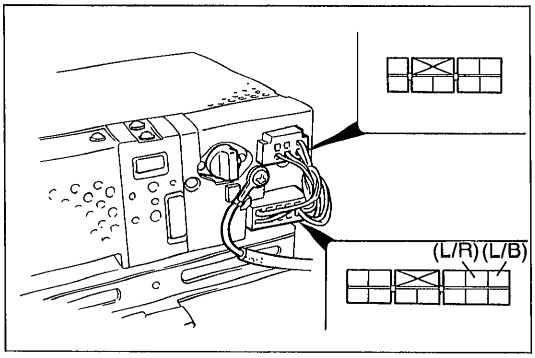
Display	Action
CODE flashes	Deactive anti-theft system (Refer to page T–114.) **Note** **If CODE appears when ignition switch is turned to ACC from OFF go to Step 2.**
Err flashes	Have audio unit changed at a Panasonic service company
Clock	Go to Step 4
No indication	Go to Step 2



05U0TX-251

Step 2

1. Remove the audio unit. (Refer to page T–126.)
2. Check the connections of the ground wire and the short plug.
3. If a connection is poor or loose, repair or replace it.
4. If the connections are OK, go to Step 3.

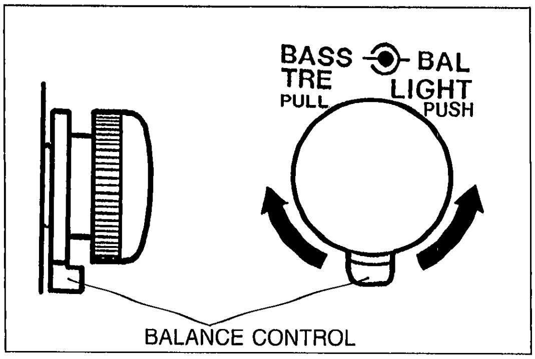


05U0TX-252

Step 3

1. Turn the ignition switch to ACC.
2. Measure the voltage at the following terminal-wires of the audio unit connector.

Wire	Voltage	Action
(L/B)	12V	Next, check wire (L/R)
	0V	Check CIGAR 15A fuse If CIGAR 15A fuse OK, repair wiring harness (CIGAR 15A fuse — Audio unit)
(L/R)	12V	Replace audio unit
	0V	Check ROOM 10A fuse If ROOM 10A fuse OK, repair wiring harness (ROOM 10A fuse — Audio unit)



05U0TX-253

Step 4

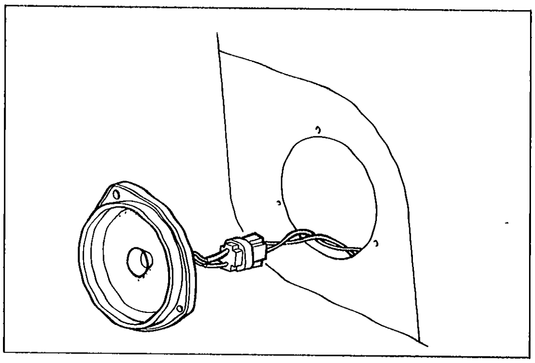
Locate the faulty speaker(s) by using the balance control.

1. Turn the ignition switch to ACC.
2. Play a prerecorded tape, and set the volume to the center position.
3. Set the balance control as shown in Table 1 (page T–116). Check operation of each speaker.
4. From results of Table 1 testing, go to the next step.

Table 1

Speaker	Balance	Speaker operates	Judgement	Next Step
Left door	Left	Yes	Left door speaker circuit OK	—
		No	Left door speaker circuit faulty	Step 5
Right door	Right	Yes	Right door speaker circuit OK	—
		No	Right door speaker circuit faulty	Step 5

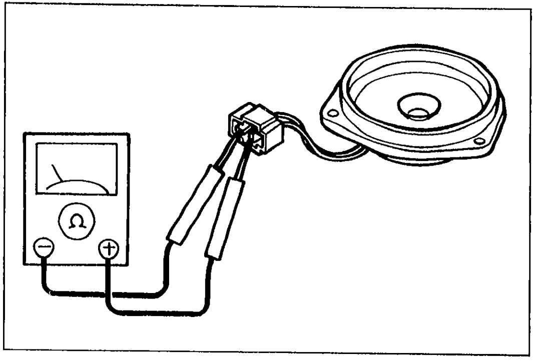
05U0TX-254



05U0TX-255

Step 5

1. Remove the faulty door speaker cover and speaker installation screws.
2. Check if the speaker is properly connected.
3. If necessary, repair or reconnect the connector.
4. If the connection is OK, go to Step 6.



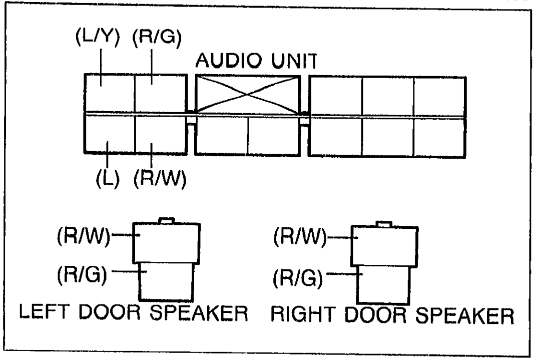
05U0TX-256

Step 6

1. Disconnect the connector from the suspected faulty speaker.
2. Measure resistance between terminals of the speaker.

Resistance: 4Ω

3. If not as specified, replace the speaker.
4. If the resistance is OK, go to Step 7.



05U0TX-257

Step 7

1. Disconnect the 12-pin connector of the audio unit.
2. Disconnect both door speakers.
3. Check for continuity of the following wires of the door speakers wire harness.

Connectors	Wire	Continuity
Audio unit — Left door speaker	(R/W)	Yes
	(R/G)	Yes
Audio unit — Right door speaker	(L)	Yes
	(L/Y)	Yes

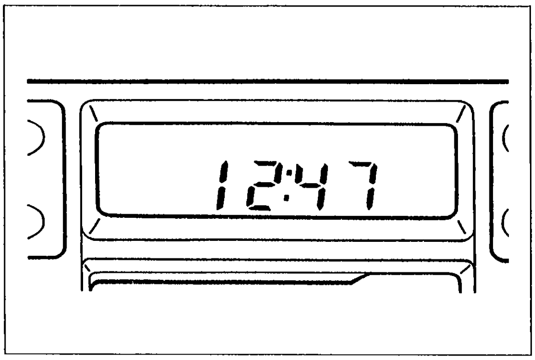
4. If not as specified, repair the faulty wiring.
5. If the wiring is OK, replace the audio unit.

Symptom: Speaker(s) do not operate (With headrest speakers.)

Note

- **Before troubleshooting, verify that the customer is using the audio system correctly. If not, advise or instruct him/her in the proper operating procedure. (Refer to page T–110.)**

05U0TX-258

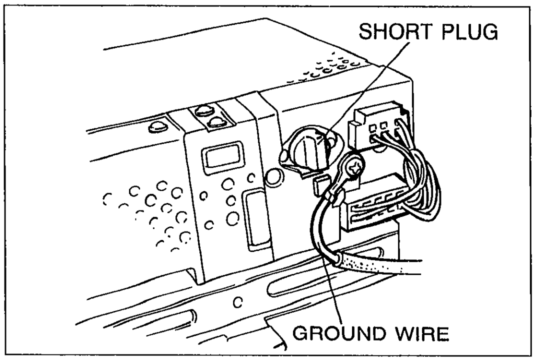


05U0TX-250

Step 1

Check if the anti-theft system has been activated. Turn the ignition switch to ACC and note the display.

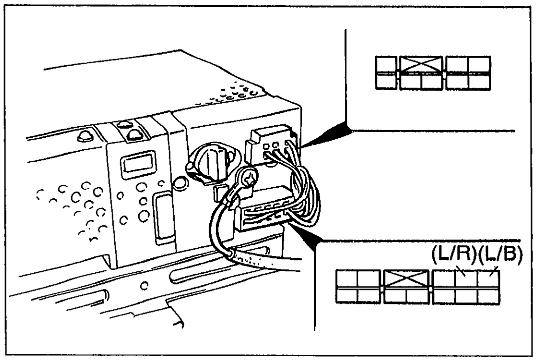
Display	Action
CODE flashes	Deactive anti-theft system (Refer to page T–114.) **Note** **If CODE appears when ignition switch is turned to ACC from OFF go to Step 2.**
Err flashes	Have audio unit changed at a Panasonic service company
Clock	Go to Step 4
No indication	Go to Step 2



05U0TX-251

Step 2

1. Remove the audio unit. (Refer to page T–126.)
2. Check the connections of the ground wire and the short plug.
3. If a connection is poor or loose, repair or replace it.
4. If the connections are OK, go to Step 3.

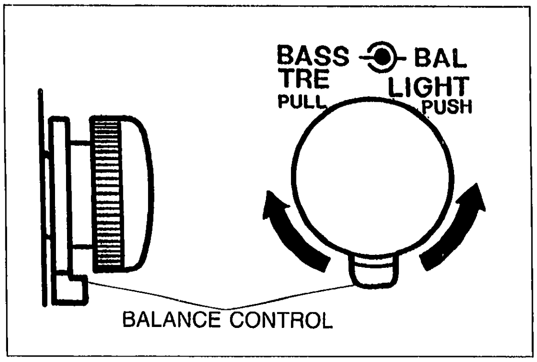


05U0TX-252

Step 3

1. Turn the ignition switch to ACC.
2. Measure the voltage at the following terminal-wires of the audio unit connector.

Wire	Voltage	Action
(L/B)	12V	Next, check wire (L/R)
	0V	Check CIGAR 15A fuse If CIGAR 15A fuse OK, repair wiring harness (CIGAR 15A fuse — Audio unit)
(L/R)	12V	Replace audio unit
	0V	Check ROOM 10A fuse If ROOM 10A fuse OK, repair wiring harness (ROOM 10A fuse — Audio unit)



05U0TX-259

Step 4

Locate the faulty speaker(s) by using the heatrest speaker volume, and balance control.

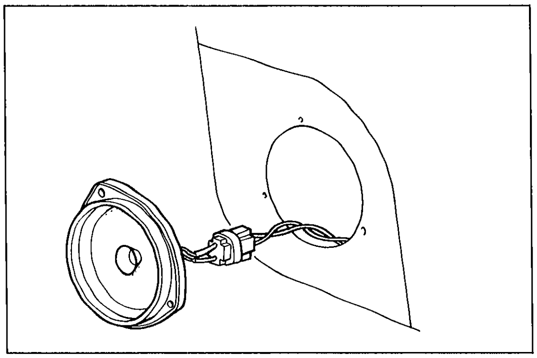
1. Turn the ignition switch to ACC.
2. Play a prerecorded tape, and set the volume to the center position.
3. Set the head restraint speaker volume, and balance controls as shown in Table 2 (page T–118). Check operation of each speaker.
4. From results of Table 2 testing, go to the next step.

Table 2

Speaker	Balance	Head restraint speaker volume	Speaker operates	Judgement	Next Step
Left door	Left	Min	Yes	Left door speaker circuit OK	—
			No	Left door speaker circuit faulty	Step 5
Right door	Right	Min	Yes	Right door speaker circuit OK	—
			No	Right door speaker circuit faulty	Step 5
Left headrest (Driver seat)	—	Max	Yes	Left headrest speaker circuit (driver seat) OK	—
			No	Left headrest speaker circuit (driver seat) faulty	Step 8
Right headrest (Driver seat)	—	Max	Yes	Right headrest speaker circuit (driver seat) OK	—
			No	Right headrest speaker circuit (driver seat) faulty	Step 8
Left headrest (Passenger seat)	—	Max	Yes	Left headrest speaker circuit (passenger seat) OK	—
			No	Left headrest speaker circuit (passenger seat) faulty	Step 8
Right headrest (Passenger seat)	—	Max	Yes	Right headrest speaker circuit (passenger seat) OK	—
			No	Right headrest speaker circuit (passenger seat) faulty	Step 8

05U0TX-260

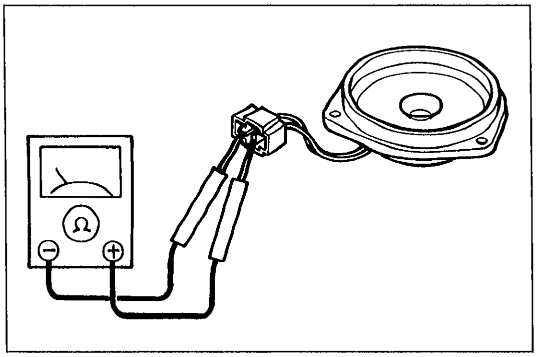
Step 5



05U0TX-261

1. Remove the faulty door speaker cover and speaker installation screws.
2. Check if the speaker is properly connected.
3. If necessary, repair or reconnect the connector
4. If the connection is OK, go to Step 6.

Step 6



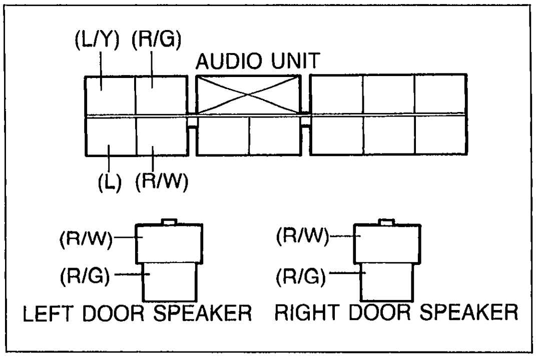
05U0TX-256

1. Disconnect the connector from the suspected faulty speaker.
2. Measure resistance between terminals of the speaker.

Resistance: 4Ω

3. If not as specified, replace the speaker.
4. If the resistance is OK, go to Step 7.

Step 7

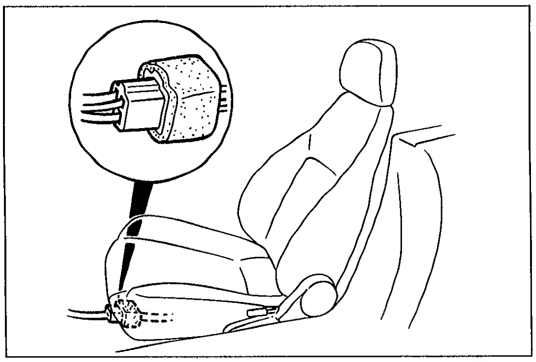


05U0TX-257

1. Disconnect the 12-pin connector of the audio unit.
2. Disconnect both door speakers.
3. Check for continuity of the following wires of the door speakers wire harness.

Connectors	Wire	Continuity
Audio unit — Left door speaker	(R/W)	Yes
	(R/G)	Yes
Audio unit — Right door speaker	(L)	Yes
	(L/Y)	Yes

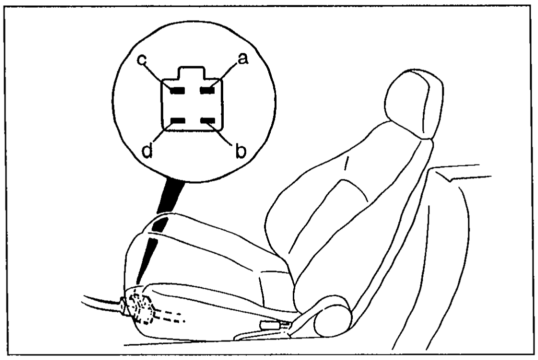
4. If not as specified, repair the faulty wiring.
5. If the wiring is OK, replace the audio unit.



05U0TX-262

Step 8

1. Check if the headrest speaker connector is properly connected.
2. If necessary, repair or reconnect the connector.
3. If the connection is OK, go to Step 9.



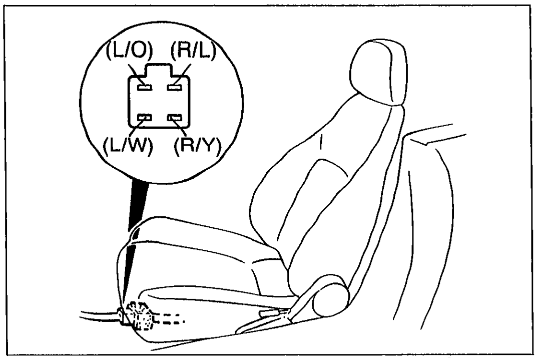
05U0TX-263

Step 9

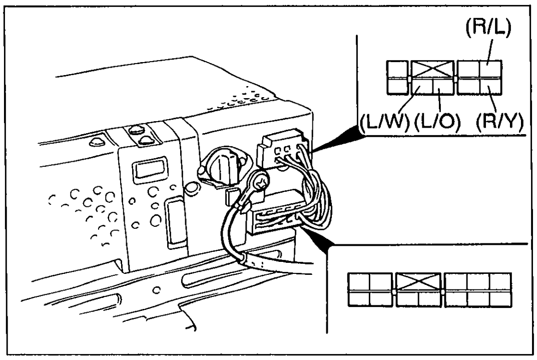
1. Disconnect the headrest speaker connector.
2. Measure resistance between terminals of the headrest speaker connector as shown.

Terminal	Resistance
a—b	4Ω
c—d	

3. If not as specified, replace the speaker.
4. If the resistance is OK, go to Step 10.



05U0TX-264



Step 10

1. Disconnect the 8-pin connector of the audio unit.
2. Disconnect both headrest speaker connectors.
3. Check for continuity of the following wires of the headrest speakers wire harness.

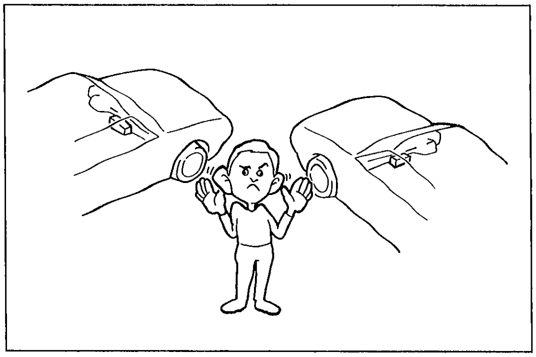
Connectors	Wire	Continuity
Audio unit — Driver seat headrest speakers	(R/Y)	Yes
	(R/L)	Yes
	(L/W)	Yes
	(L/O)	Yes
Audio unit — Passenger seat headrest speakers	(R/Y)	Yes
	(R/L)	Yes
	(L/W)	Yes
	(L/O)	Yes

4. If not as specified, repair the faulty wiring.
5. If the wiring is OK, replace the audio unit.

Radio

Symptom: Poor sound quality or noise

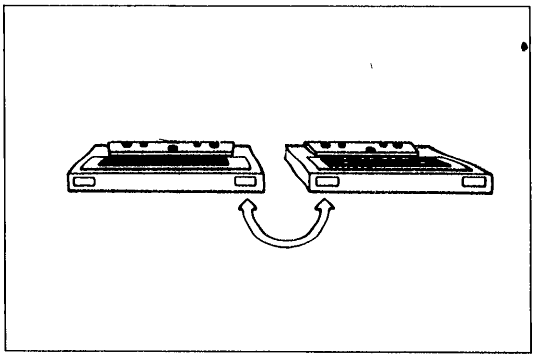
05U0TX-462



05U0TX-336

Step 1

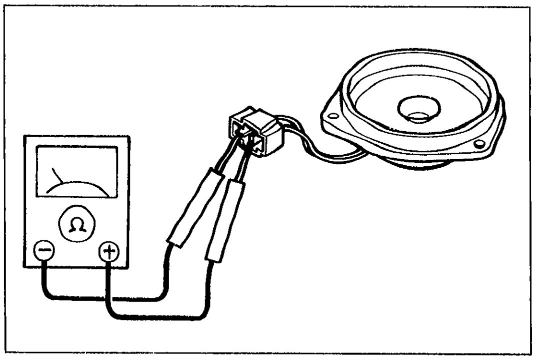
1. Tune to the strongest AM station using the automatic memory function. (Refer to pages T–111.)
2. If the automatic memory function does not operate, go to Step 4.
3. Compare sound quality with that of another vehicle that has the same type audio unit.
4. If the sound quality is inferior to the other unit, go to Step 2.
5. If the sound quality is the same as the other unit, the system is OK.



9MU0TX-391

Step 2

1. Play a known good cassette tape, and compare the sound quality with another vehicle that has the same type audio unit.
2. If the sound quality is inferior to the other unit, the malfunction may be in the speaker circuit. Go to Step 3.
3. If the sound quality is same as the other unit, the malfunction may be in the antenna circuit. Go to Step 4.



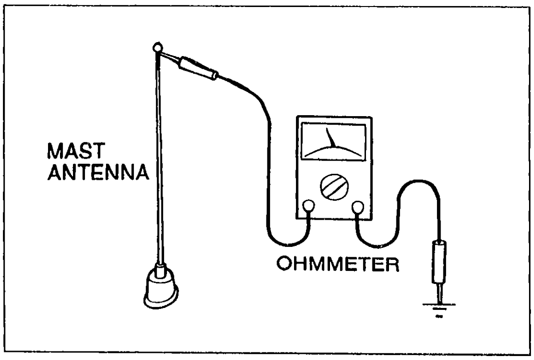
05U0TX-337

Step 3

1. Check for damage to the speakers.
2. Check for proper connection of speaker connectors.
3. Disconnect the speaker connectors, and measure resistance of each speaker.

Resistance: 4Ω

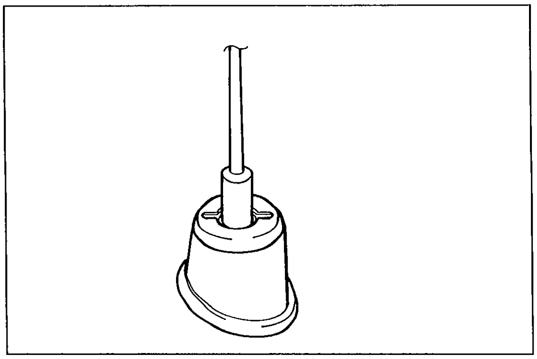
4. If a speaker has incorrect resistance or is damaged, replace it.
5. If the speakers are OK, replace the audio unit.



9MU0TX-393

Step 4

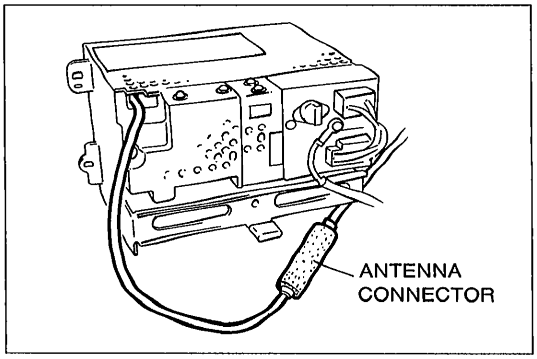
1. Check that there is no continuity (infinite ohms) between the mast antenna and a body ground.
2. If there is continuity, replace the antenna.
3. If there is no continuity, go to Step 5.



05U0TX-338

Step 5

1. Check for proper tightness of the antenna mounting nut.
2. If the nut is loose, tighten it.
3. If the nut is tight, go to Step 6.



05U0TX-339

Step 6

1. Remove the audio unit.
2. Check for proper connection of the antenna connector.
3. If necessary, repair or reconnect it.
4. If the connection if OK, replace the audio unit..

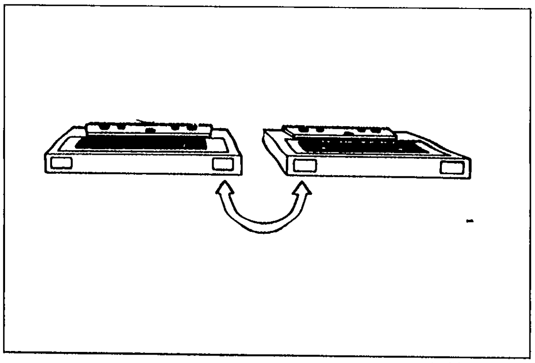
Cassette Tape Player

Symptom: Poor sound quality.

Note

- **Before troubleshooting, verify that the customer is using the audio system correctly. If not, instruct him/her in the proper operating procedurer. (Refer to pages T–110.)**
- **If a speaker(s) do not operate, refer to "Speaker(s) do not operate". (pages T–115 or 117).**

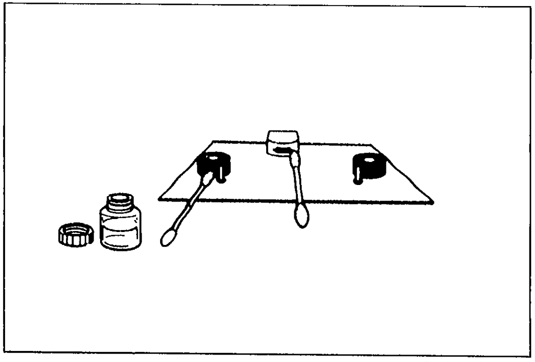
05U0TX-265



05U0TX-340

Step 1

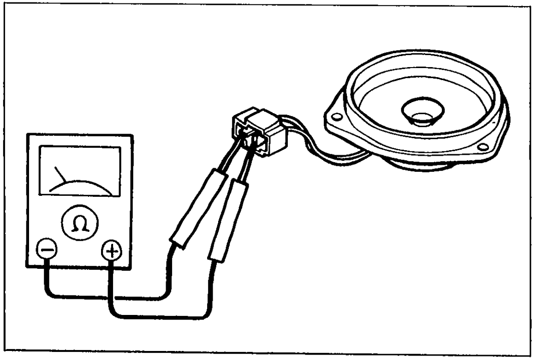
1. Play a known good tape, and check the sound quality.
2. If sound quality is normal, the previous tape is defective. The system is OK.
3. If sound quality is still poor, go to Step 2.



9MU0TX-380

Step 2

1. Check for oxide or dirt on the head, capstan, and pinchroller.
2. If oxide or dirt is found, clean the parts with a head cleaner.
3. If there is no oxide or dirt, go to Step 3.



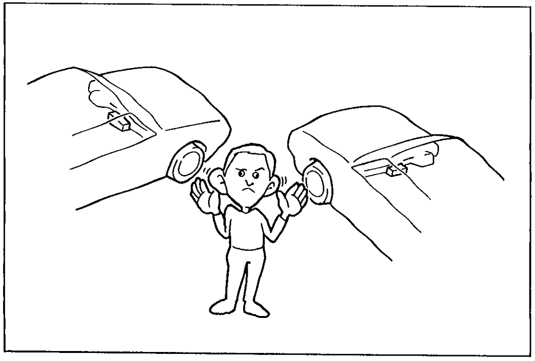
05U0TX-341

Step 3

1. Check for damage to the speakers.
2. Check for proper connection of the speaker connectors.
3. Disconnect all speaker connectors, and measure resistance of each speaker.

Resistance: 4Ω

4. If a speaker has incorrect resistance or is damaged, replace it.
5. If the speakers are OK, go to Step 4.



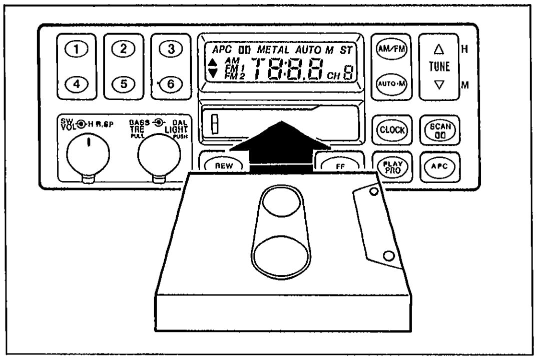
9MU0TX-382

Step 4

1. Compare sound quality with that of another vehicle that has the same type of audio system.
2. If the sound quality is inferior to the other unit, replace the audio unit.

Symptom: Cassette tape will not load.

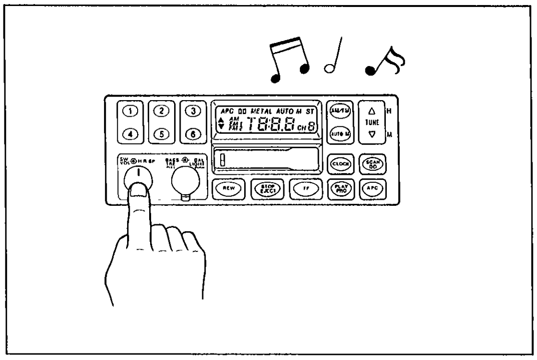
05U0TX-342


APC DD METAL AUTO M ST
AM
FM1
FM2
T8:8.8
CH 8
AM/FM
AUTO·M
TUNE
H
M
SW VOL
H.SP
BASS TRE PULL
DAL LIGHT PUSH
CLOCK
SCAN DD
REW
FF
PLAY PRO
APC

9MU0TX-384

Step 1

1. Check if a known good cassette tape will load.
2. If the tape loads, the previous tape is defective. The system is OK.
3. If the tape will not load, go to Step 2.



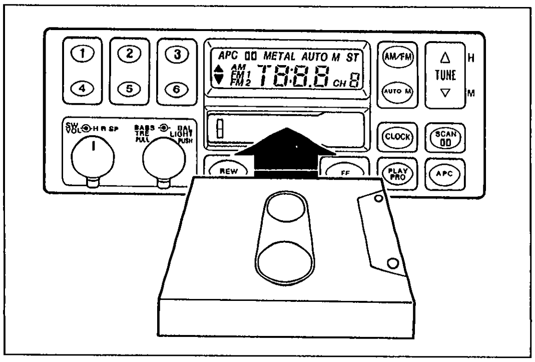
05U0TX-266

Step 2

1. Check if radio operation is OK.
2. If radio operation is OK, replace the audio unit.
3. If the radio do not operate, there is a defect in the power supply circuit. (Refer to "Speaker(s) do not operate", pages T–115 or 117.)

Symptom: Cassette tape will not play.

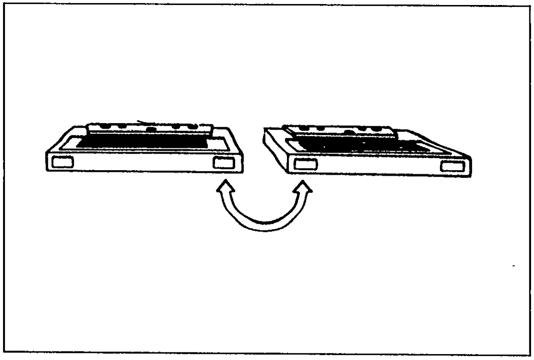
9MU0TX-386


APC
METAL
AUTO M
ST
AM
FM 1
FM 2
CH
AM/FM
AUTO M
TUNE
H
M
CLOCK
SCAN
REW
FF
PLAY PRO
APC

05U0TX-343

Step 1

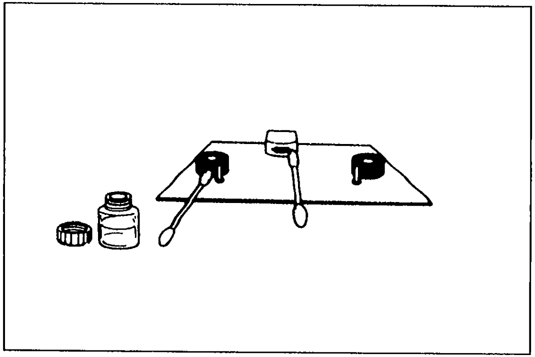
1. Check if cassette tape will load.
2. If cassette tape will not load, see, "Cassette tape will not load". (Refer to page T–123.)
3. If cassette tape loads, go to Step 2.



05U0TX-463

Step 2

1. Play a known good tape, and check the sound quality.
2. If sound quality is normal, the previous tape is defective. The system is OK.
3. If sound quality is still poor, go to Step 3.



05U0TX-464

Step 3

1. Check for oxide or dirt on the head, capstan, and pinchroller.
2. If oxide or dirt is found, clean the parts with a head cleaner.
3. If after cleaning the parts, the tape still does not play, refer to "Speaker(s) do not operate", pages T–115 or 117.

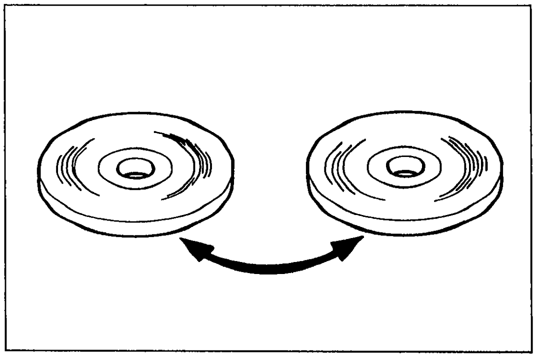
Compact Disc Player

Symptom: Compact disc will not load.

Note

- **When a damaged or dirty compact disc is loaded, the audio unit detects such, and ejects the compact disc.**

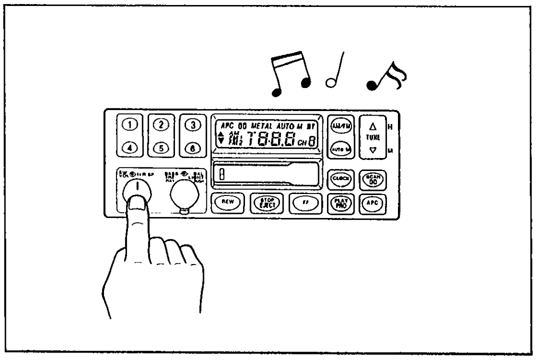
9MU0TX-405



9MU0TX-406

Step 1

1. Check if a known good compact disc will load.
2. If the compact disc will load, the system is OK.
3. If the compact disc will not load, go to Step 2.



05U0TX-268

Step 2

1. Check if the radio operates normally.
2. If the radio operates normally, replace the audio unit.
3. If the radio does not operate there is defective in the power supply circuit. (Refer to "Speaker(s) does not sound", pages T–115 or 117.)

Symptom: Compact disc skips.

05U0TX-344

Note

- **Compact disc skipping may be hard to recreate because it is a result of the vehicle encountering sharp road shocks. This is a normal condition if skipping happens only infrequently.**

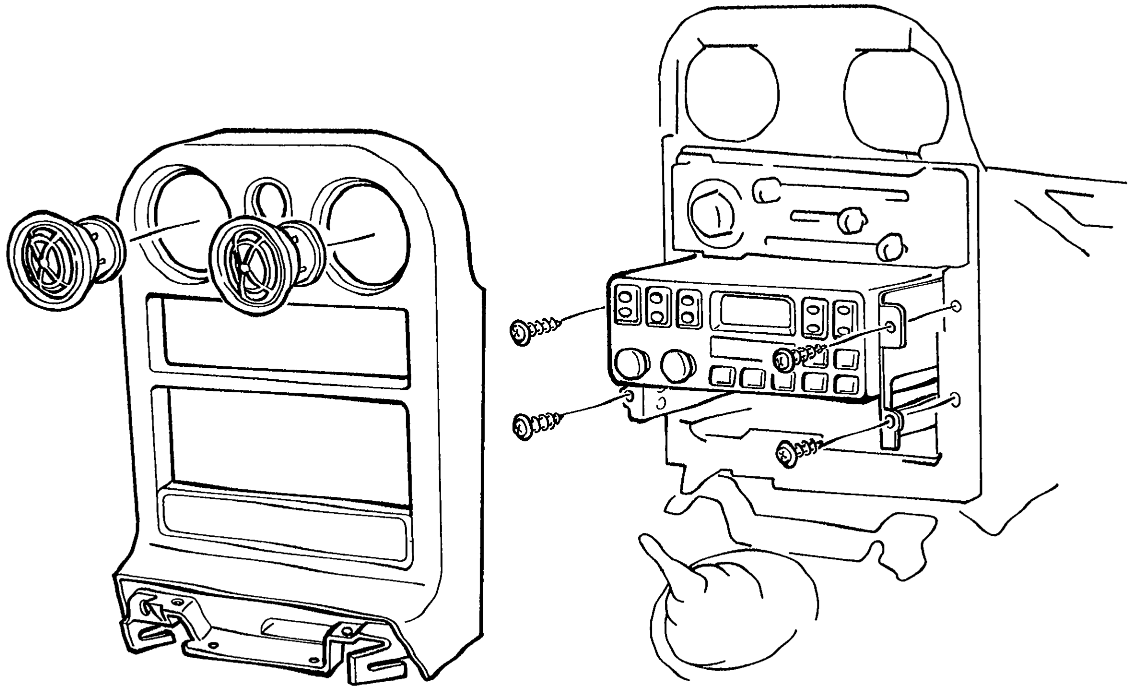
Remedy

1. Check with the driver if skipping occurs often.
2. If it occurs often, check that the audio unit is properly installed.
   (1) If the audio unit is not installed properly, remedy it.
   (2) If the audio unit is installed properly, replace the audio unit.

REMOVAL / INSTALLATION

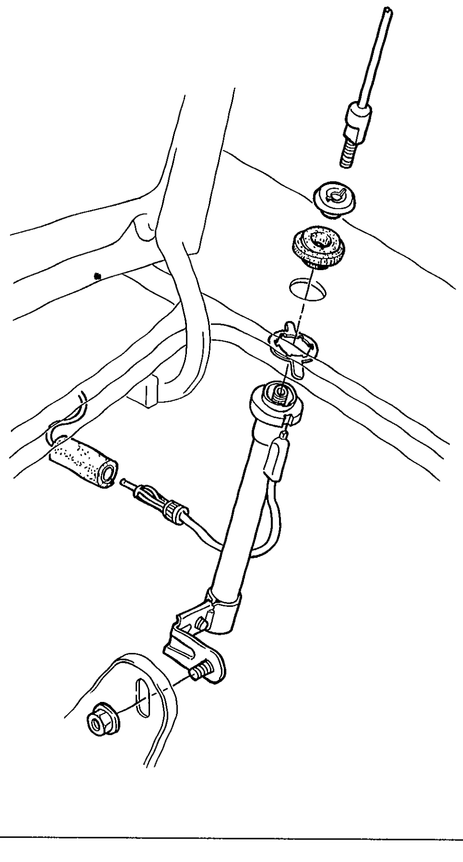
Remove and install as shown in the figure.

AUDIO UNIT

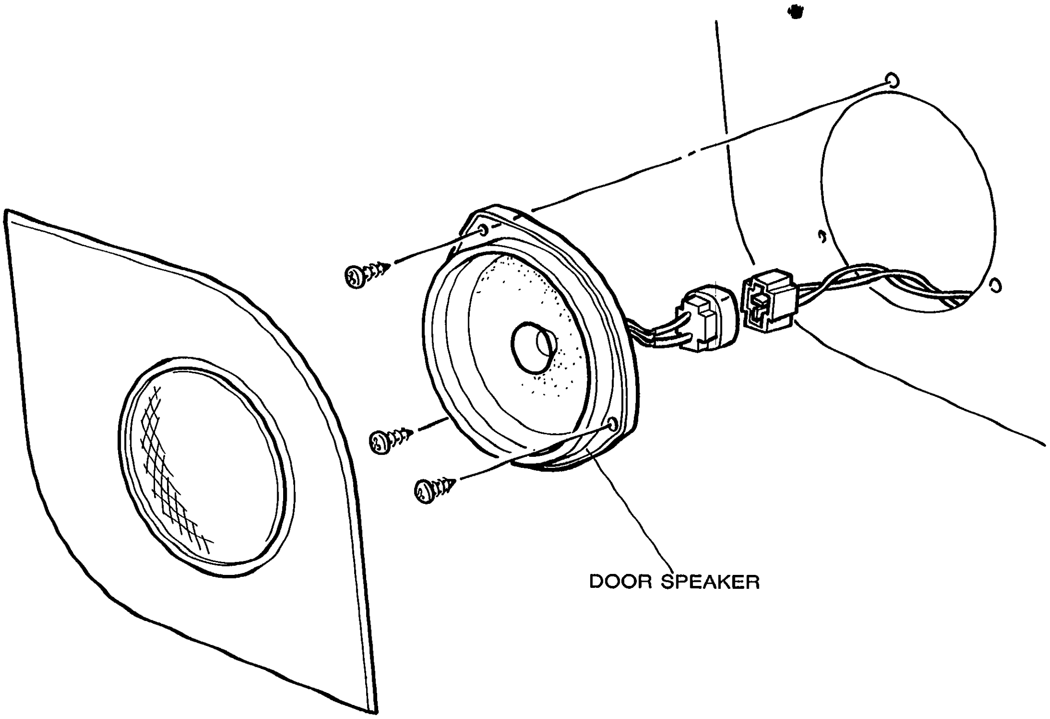


05U0TX-269

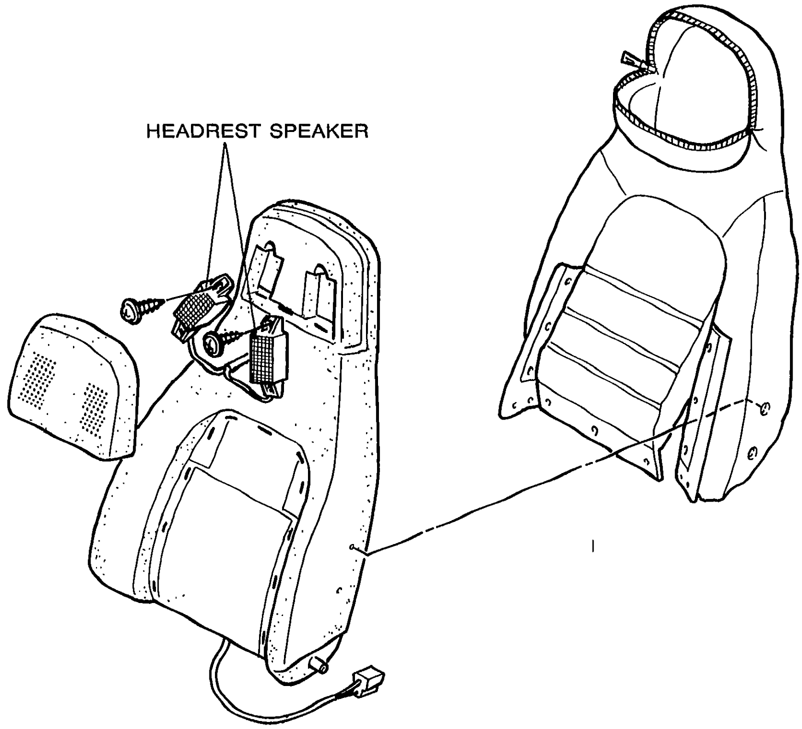
ANTENNA

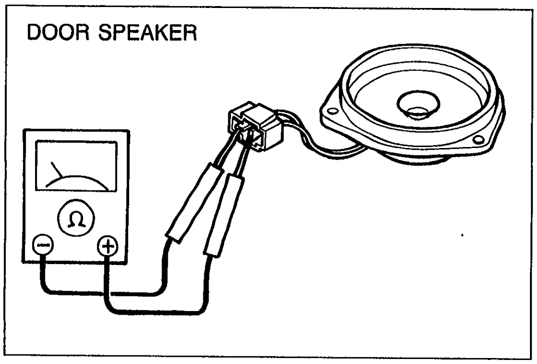


DOOR SPEAKERS


DOOR SPEAKER

HEADREST SPEAKERS


HEADREST SPEAKER


DOOR SPEAKER
Ω
⊖
⊕

05U0TX-270

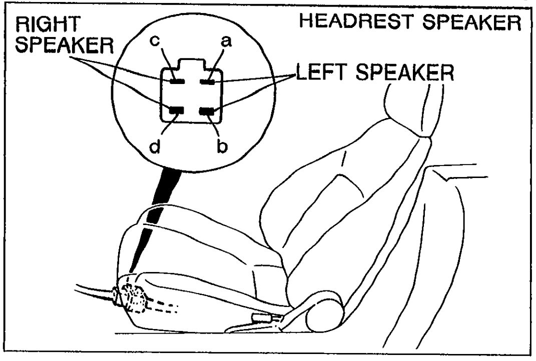
INSPECTION

Door Speakers

1. Disconnect the connector from the suspected faulty speaker.
2. Measure resistance between terminals of the speaker.

Resistance: 4Ω

3. If not as specified, replace the speaker.


RIGHT SPEAKER
HEADREST SPEAKER
c
a
LEFT SPEAKER
d
b

05U0TX-465

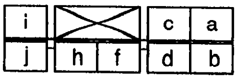
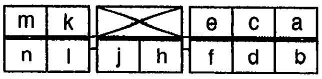
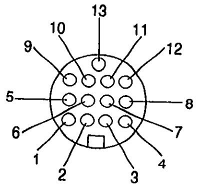
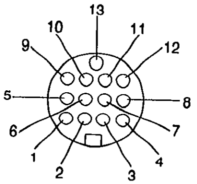
Headrest Speakers

1. Disconnect the headrest speaker connector.
2. Measure resistance between terminals of the headrest speaker connector as shown.

Terminal	Resistance
a—b	4Ω
c—d	

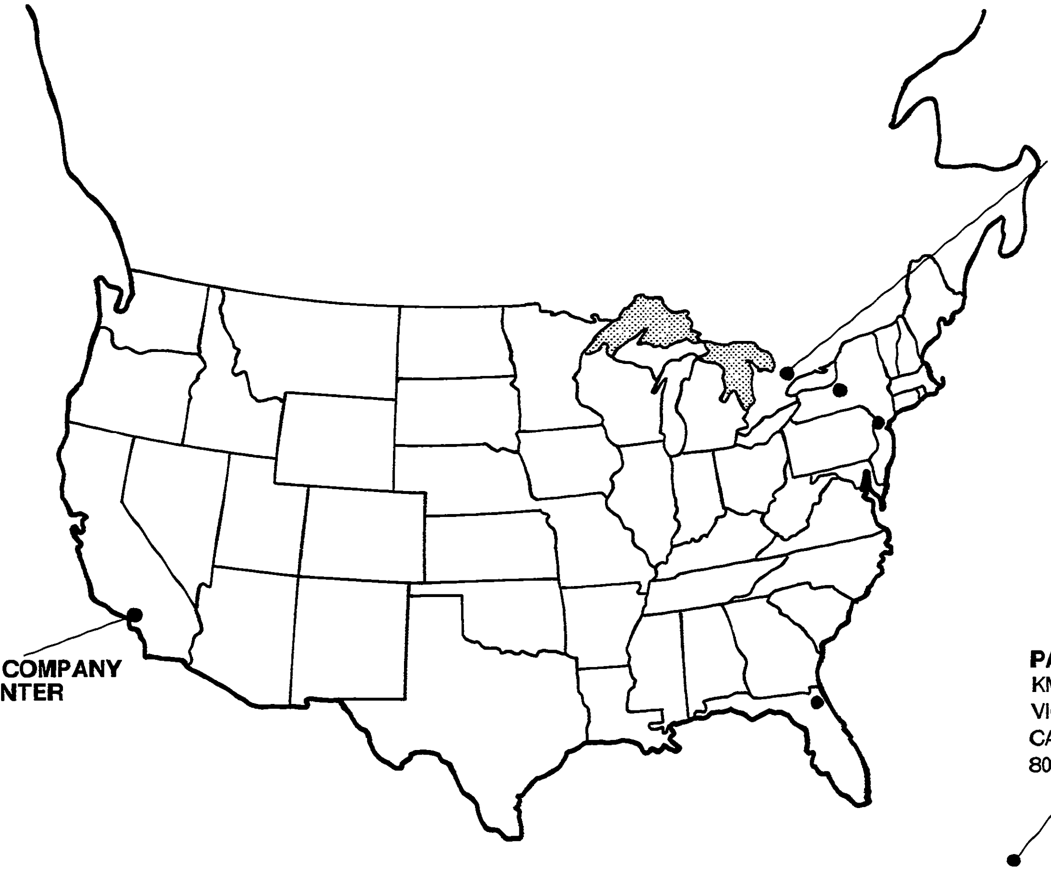
3. If not as specified, replace the speaker.

CONNECTOR TERMINAL SPECIFICATIONS

Component	Connector	Terminal	
Audio unit		a : Headrest speaker left ⊕ b : Headrest speaker left ⊖ c : NC d : NC	f : Headrest speaker right ⊕ h : Headrest speaker right ⊖ i : NC j : NC
	 m k e c a n l j h f d b	a : ACC b : NC c : +B d : NC e : TNS (for illumination lamps) f : NC	h : NC j : NC k : Door speaker left ⊕ l : Door speaker left ⊖ m : Door speaker right ⊕ n : Door speaker right ⊖
	 13 10 11 9 12 5 8 6 7 1 4 2 3	1 : Left signal 2 : Left signal 3 : Right signal 4 : Right signal 5 : Signal ground 6 : Illumination signal 7 : ACC	8 : +B 9 : Amp control signal 10 : NC 11 : NC 12 : NC 13 : NC
Compact disc player	 13 10 11 9 12 5 8 6 7 1 4 2 3	1 : Left signal 2 : Left signal 3 : Right signal 4 : Right signal 5 : Signal ground 6 : Illumination signal 7 : ACC	8 : +B 9 : Amp control signal 10 : NC 11 : NC 12 : NC 13 : NC

05U0TX-271

PANASONIC SERVICE NETWORK



MATSUSHITA ELECTRIC OF CANADA LIMITED
5770 AMBLER DRIVE
MISSISSALIGA, ONTARIO
L4W2T3
416-624-5010

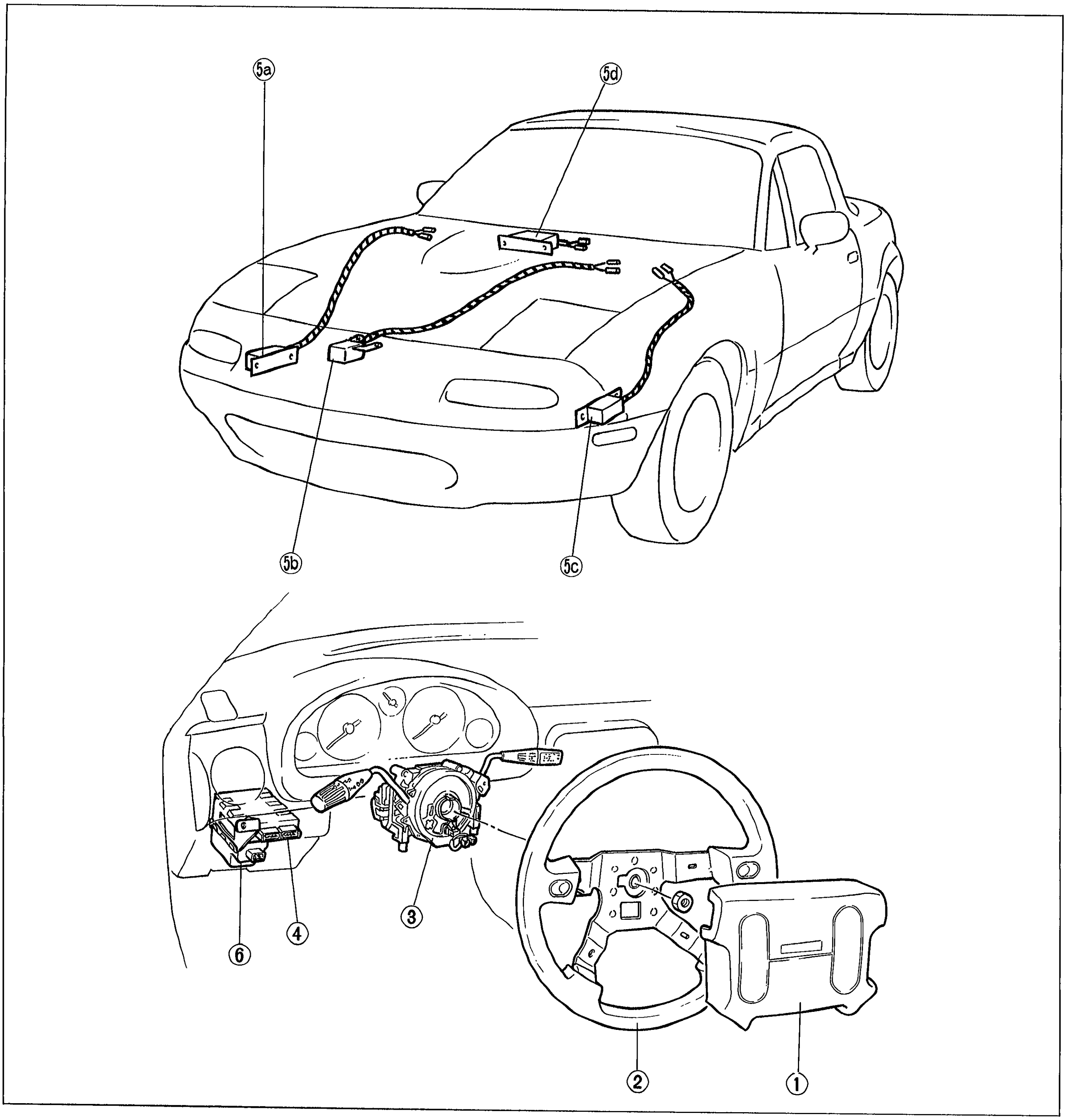
PANASONIC INDUSTRIAL COMPANY TECHNICAL SUPPORT CENTER
6550 KATELLA AVENUE
CYPRESS CA 90630
714-373-7419

PANASONIC SALES COMPANY
KM 97 AVE 65 INFANTERIA
VICTORIA IND PARK
CAROLINA PUERTO RICO 00630
809-750-4300

005U0TX-345

AIR BAG SYSTEM

STRUCTURAL VIEW



1. Air bag module
2. Steering wheel
3. Clock spring connector
4. Diagnostic module
5. Crush sensor
   a. D-sendor (RH)
   b. D-sensor (CNT)
   c. D-sensor (LH)
   d. S-sensor
6. Backup battery

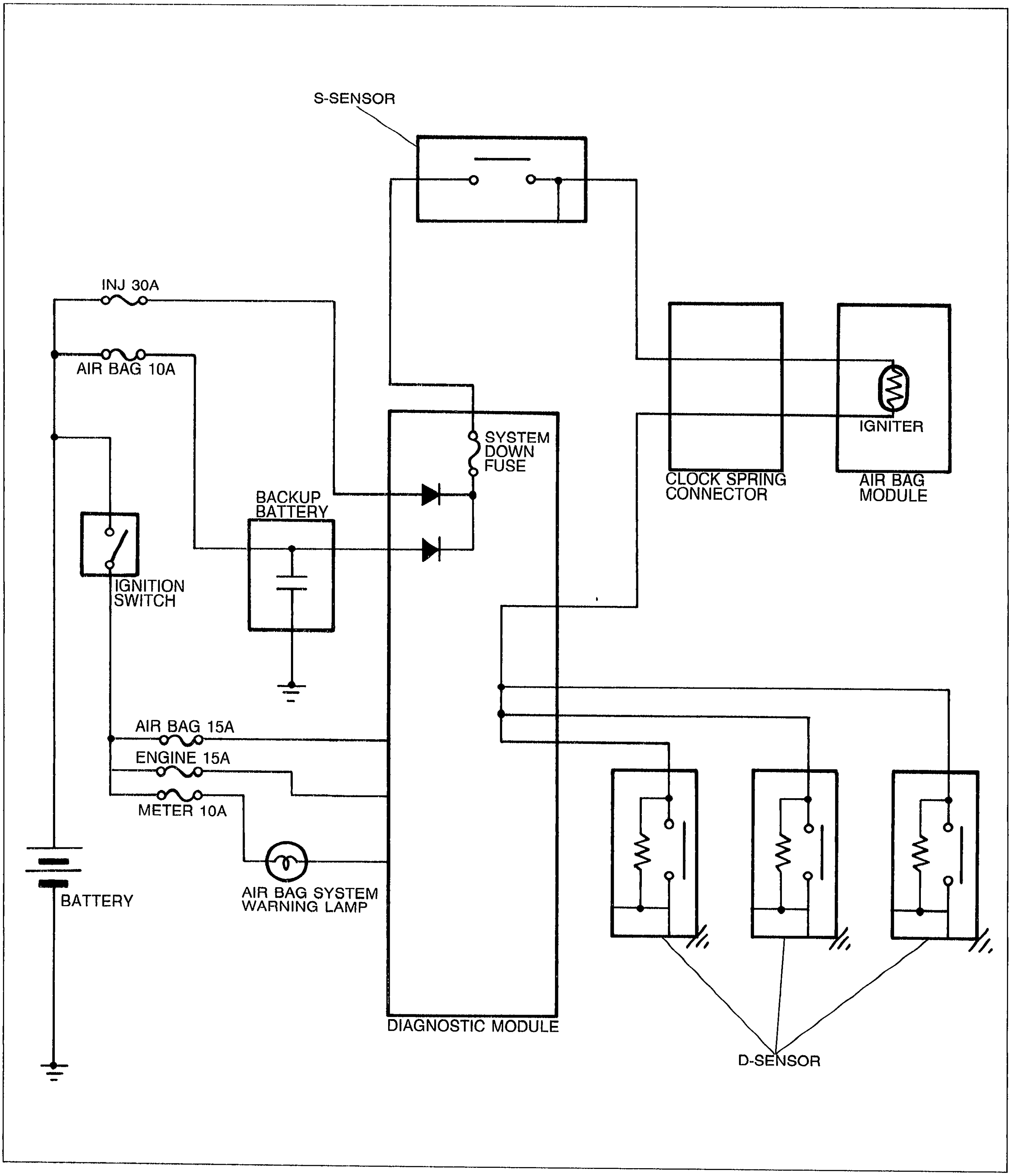
The MX-5 Miata is equipped with a driver side supplementary air bag system, a first for Mazda vehicles. The air bag system is designed to provide increased accident protection for the driver when used in conjuction with the provided seat belt system. For optimum protection, the seat belts should be used by all vehicles occupants.

COMPONENT DESCRIPTIONS

Component	Function	Remarks
Air bag system warning lamp	Lamp illuminates or flashes when problem or failure occurs in air bag system	Located in instrument cluster
Air bag module	Deploys air bag when current flows to integrated igniter	Air bag fills to volume of about 60 liters (15.9 US gal, 13.2 Imp gal)
Backup battery	Provides sufficient power to operate air bag system if battery power lost during crash	
Clock spring connector	Ensures uninterrupted electrical circuit to air bag module while allowing rotation of steering wheel	One of part of combination switch
Crash sensor	Detects frontal impact and completes circuit to send signal to air bag module	
	Two types of sensors used	
Diagnostic module	Monitors electrical system components and circuit	
	Indicates problem or failure in system by illuminating air bag system warning lamp	

05U0TX-347

SYSTEM DIAGRAM

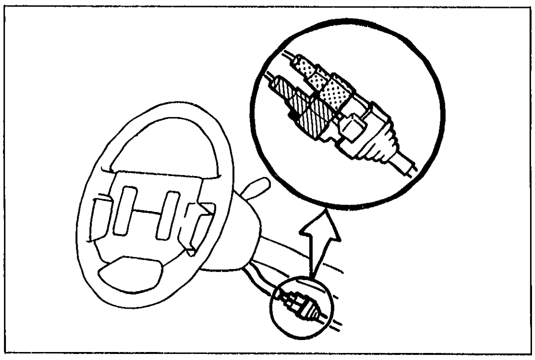

S-SENSOR
INJ 30A
AIR BAG 10A
SYSTEM DOWN FUSE
BACKUP BATTERY
IGNITION SWITCH
CLOCK SPRING CONNECTOR
IGNITER
AIR BAG MODULE
AIR BAG 15A
ENGINE 15A
METER 10A
BATTERY
AIR BAG SYSTEM WARNING LAMP
DIAGNOSTIC MODULE
D-SENSOR

05U0TX-348

The system diagram is as shown in figure. The battery, S-sensor, air bag module, and D-sensors are connected is series via diagnostic module.
When the S-sensor and one of the D-sensors are activated (closed) simultaneously, electric current flows to trigger the igniter in the air bag module.
The backup battery supplies the current to trigger the igniter if the battery or fuses fail during a collision.
The diagnostic module is fitted to monitor the system for failures. It warns the driver of such by illuminating or flashing the air bag warning lamp.

SERVICE PRECAUTION

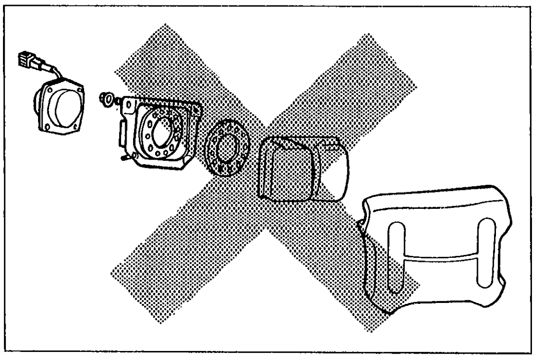
1. BEFORE COMPONENT REPLACEMENT



05U0TX-349

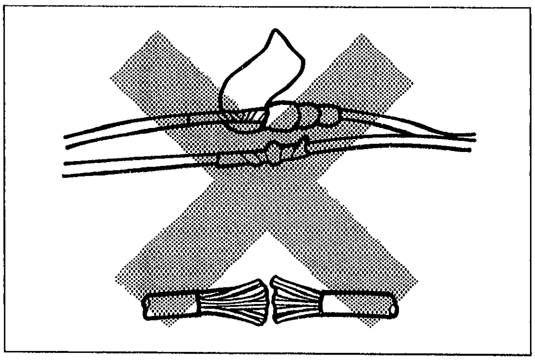
- **Obtain the code number and deactivate the audio anti-theft function before disconnecting the battery. (Refer to page T–113.)**
- **Before replacement of any air bag system component or before disconnecting any connector of the system, first disconnect the negative battery cable; then disconnect the clock spring connectors (orange and blue).**

2. PROHIBITATION OF COMPONENT DISASSEMBLY AND WIRE HARNESS REPAIR



05U0TX-350

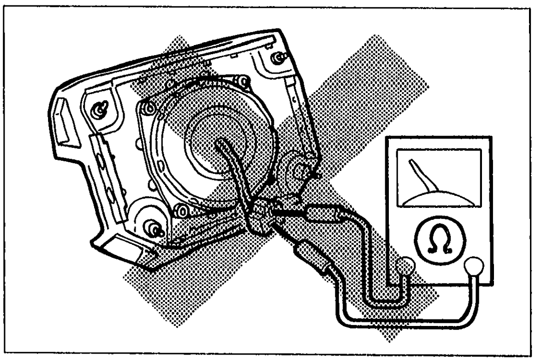
- **The components of the air bag system are not intended to be disassembled for service.**
  If a component failure is detected by the diagnostic module, replace the suspected component after checking the connections and the wire harness. Do not disassemble any component.



05UTX-351

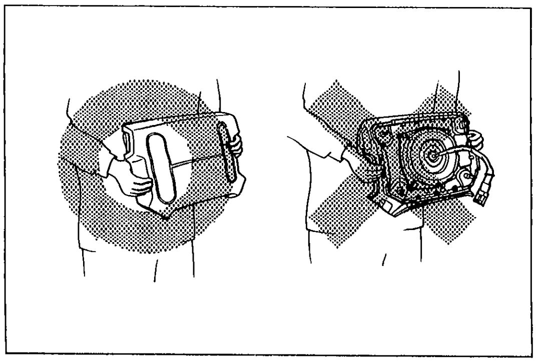
- **If an open circuit is found by a continuity test, replace the wire harness. Do not try to repair the wiring.**

3. HANDLING OF AIR BAG MODULE



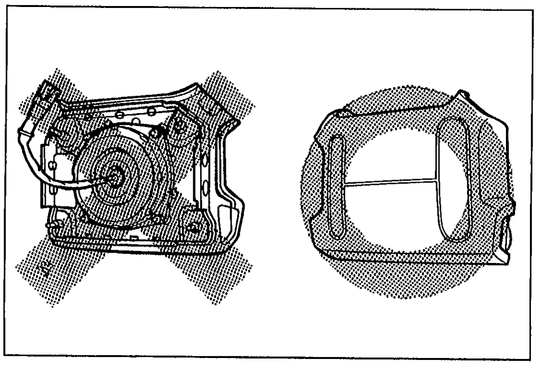
05U0TX-352

- **Do not use an ohmmeter for inspection of the air bag module, it may cause an accidental deployment of the air bag.**



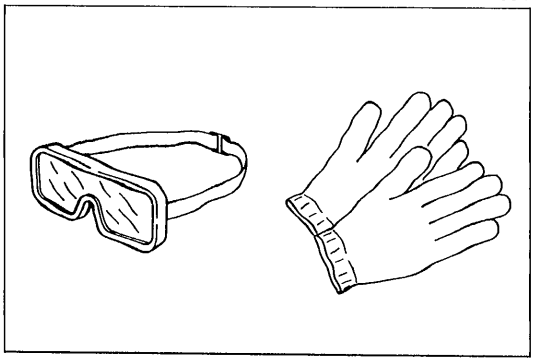
05U0TX-353

- **When carrying a live (unactivated) air bag module, make sure the trim cover is pointed away from your body to prevent personal injury in the event of an accidental deployment.**



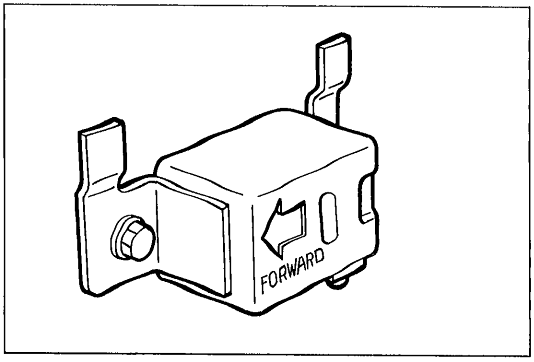
05U0TX-354

- When placing a live air bag module on any surface, always face the trim cover upward to reduce the motion of the module if it is accidentally deployed.



05U0TX-355

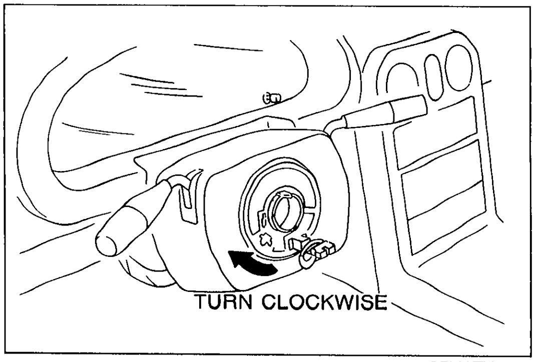
- When handling a deployed air bag module, wear gloves and safety glasses, because the deployed air bag module may contain deposits of sodium hydroxide, a caustic by-product of the gas generant combustion.
- When an air bag module is to be disposed following the proper procedure recommended for the specific situation. (Refer to page T–160.)



05U0TX-356

4. CRASH SENSOR INSTALLATION

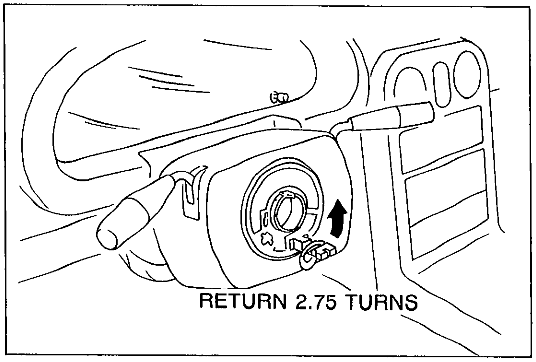
- Crash sensor oreientation is very important for proper operation. If a vehicle is involved in a collision where its front sheet metal is damaged, inspect the body structure at the sensor mounting area for deformation. If damaged, restore to its original shape.
- When installing a crash sensor, be sure to tighten the mounting bolts to the specified torque because the sensor is grounded through the crash sensor's mounting plate.



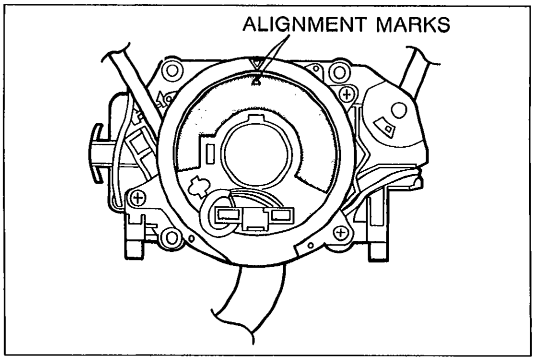
05U0TX-357

5. ADJUSTMENT OF CLOCK SPRING CONNECTOR

- Whenever the steering wheel is removed, before reinstalling it, set the clock spring connector as follows:
  1. Set the front wheels straight ahead.
  2. Turn the clock spring connector clockwise until it stops. (Do not force it.)
  3. Return the connector 2.75 turns.

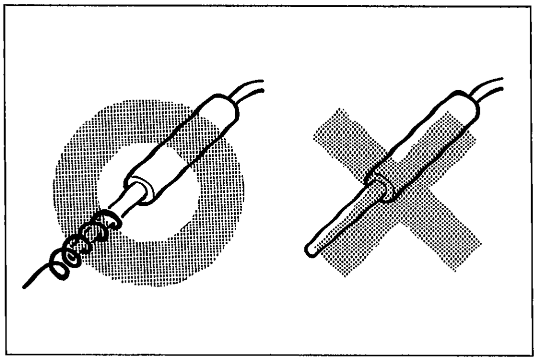


05U0TX-358



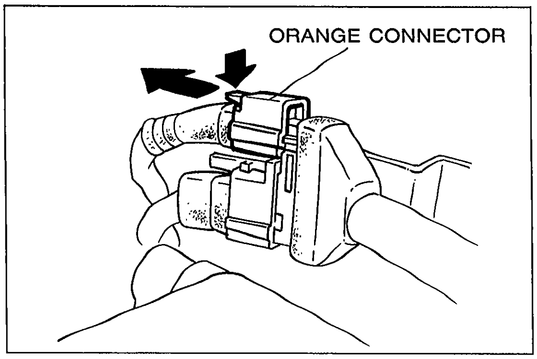
05U0TX-359

4. **Align the marks on the clock spring connector and the outer housing.**



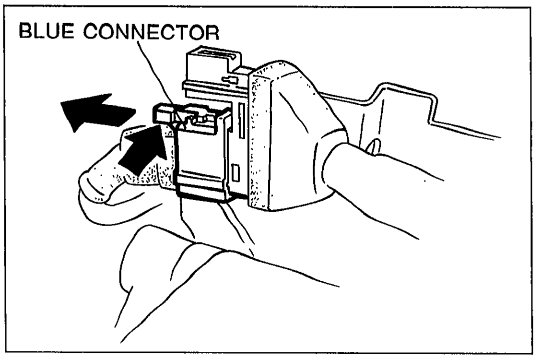
05U0TX-360

6. **When Using Test Lead**
   - **When using a test lead for testing, use a fine needle to prevent damage to the terminal.**



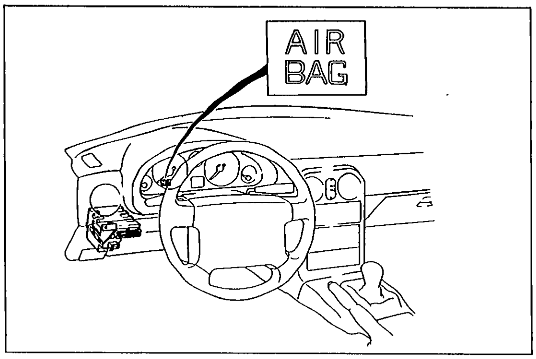
05U0TX-361

7. **Disconnecting Double Lock Type Connector**
   - **The connectors in the air bag system use a double lock type connector.**
   - **These connectors are disconnected as below.**
     1) **Press the orange knob and disconnect the orange connector.**



05U0TX-362

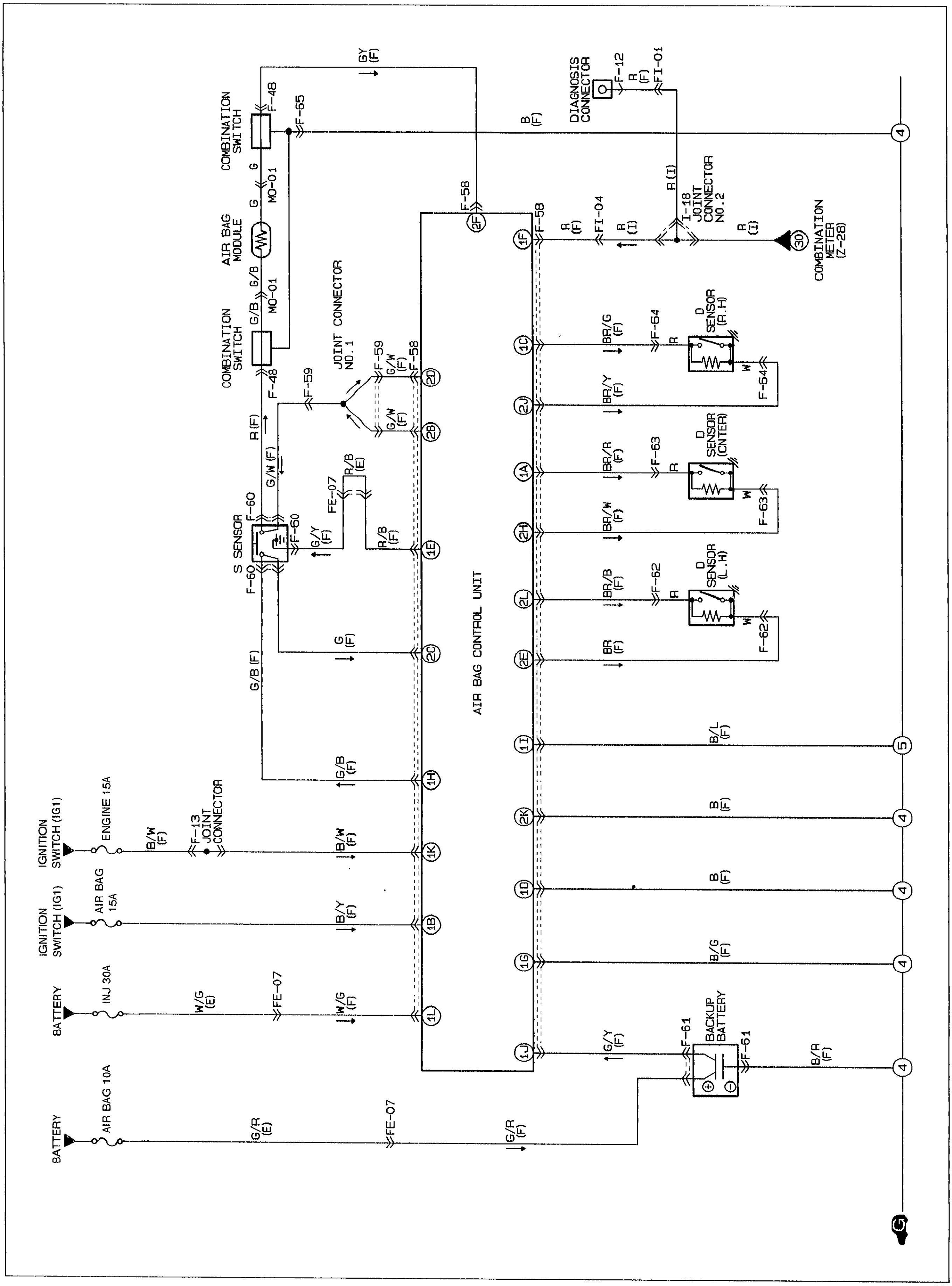
     2) **Press the blue knob and disconnect the blue connector.**
     3) **Connect the connectors in the reverse order of disconnecting.**



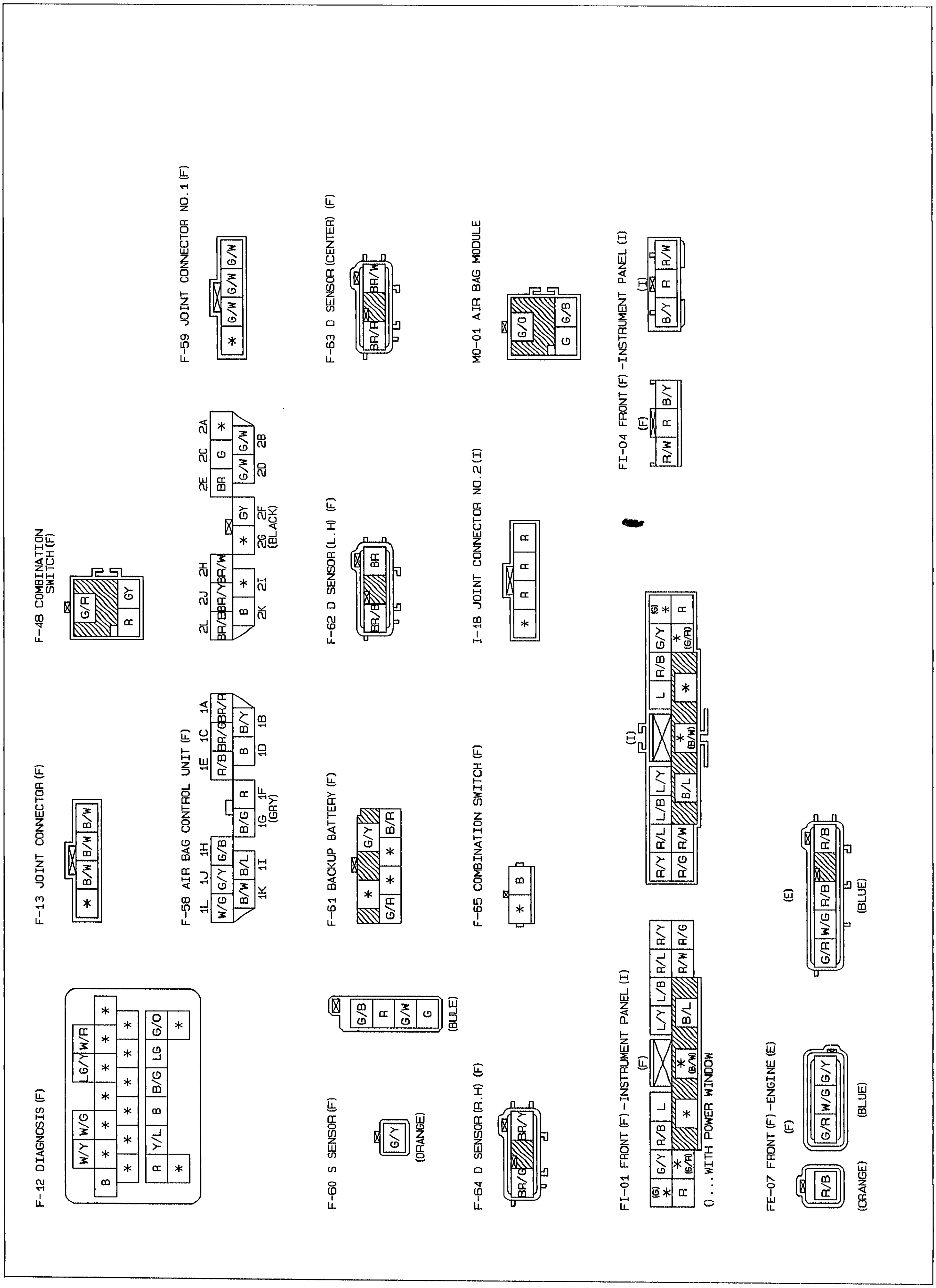
05U0TX-363

8. **After System Service**
   - **After system service verify system operation by checking with the air bag system warning lamp. If the system is operating normally, the warning lamp will come on when the ignition switch is turned ON, then go off after approximately 6 seconds.**
   - **Check if the horn sounds. If the horn does not sound, remove the air bag module and check the connections of the air bag module and horn switch connectors.**

CIRCUIT DIAGRAM


AIR BAG CONTROL UNIT
COMBINATION SWITCH
AIR BAG MODULE
JOINT CONNECTOR NO.1
S SENSOR
DIAGNOSIS CONNECTOR
I-18 JOINT CONNECTOR NO.2
COMBINATION METER (Z-28)
D SENSOR (R.H)
D SENSOR (CNTER)
D SENSOR (L.H)
BACKUP BATTERY
IGNITION SWITCH (IG1)
ENGINE 15A
AIR BAG 15A
BATTERY
INJ 30A
AIR BAG 10A
F-13 JOINT CONNECTOR
F-48
F-65
MO-01
F-58
F-59
F-60
FE-07
F-12
FI-01
FI-04
F-61
F-62
F-63
F-64
1A
1B
1C
1D
1E
1F
1G
1H
1I
1J
1K
1L
2B
2C
2D
2E
2F
2H
2J
2K
2L
GY (F)
B (F)
G
G/B
R (F)
G/W (F)
G/Y (F)
R/B (E)
R/B (F)
G (F)
G/B (F)
B/W (F)
B/Y (F)
W/G (E)
W/G (F)
G/R (E)
G/R (F)
R (I)
BR/G (F)
BR/Y (F)
BR/R (F)
BR/W (F)
BR/B (F)
BR (F)
B/L (F)
B/G (F)
B/R (F)
R
W
30
4
5

05U0TX-364

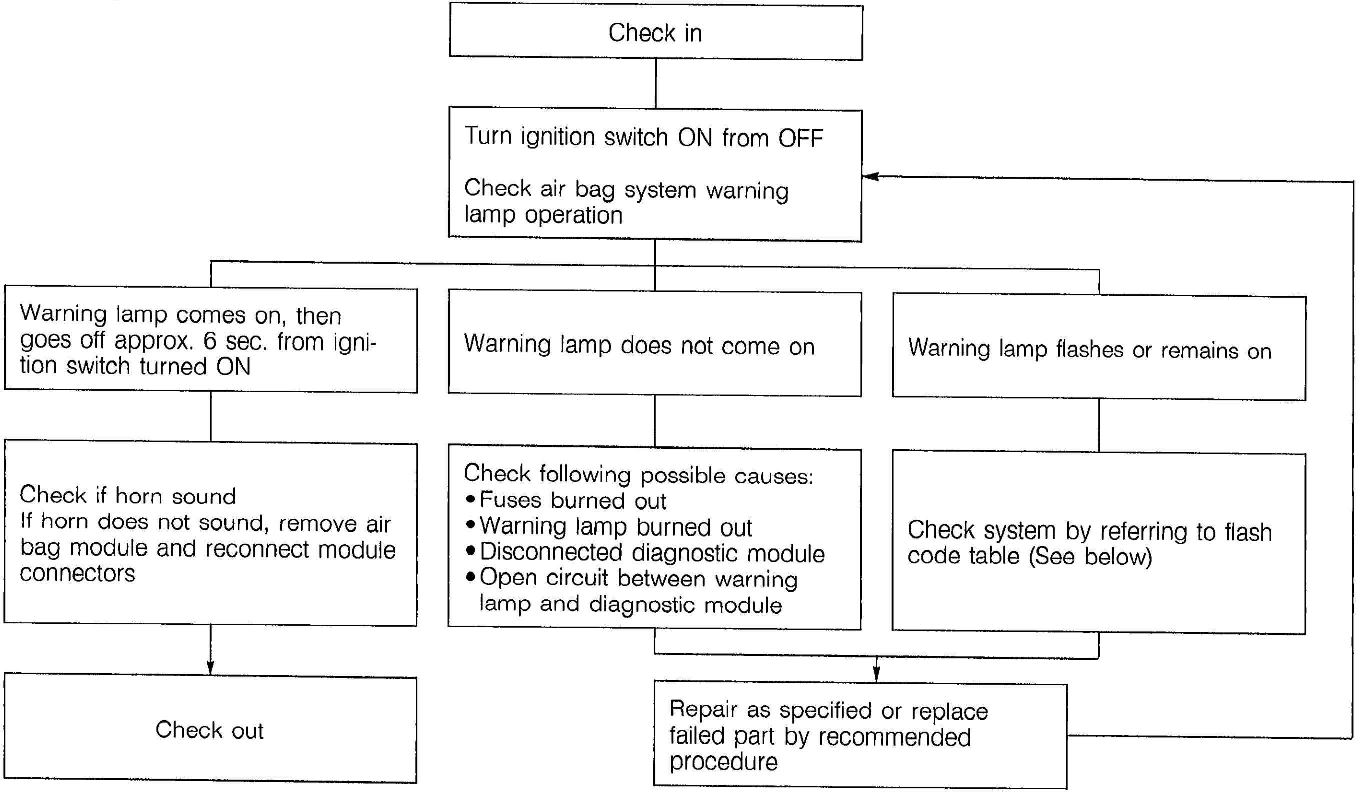

F-12 DIAGNOSIS (F)
F-13 JOINT CONNECTOR (F)
F-48 COMBINATION SWITCH (F)
F-58 AIR BAG CONTROL UNIT (F)
(GRY)
(BLACK)
F-59 JOINT CONNECTOR NO.1 (F)
F-60 S SENSOR (F)
(ORANGE)
(BULE)
F-61 BACKUP BATTERY (F)
F-62 D SENSOR (L.H) (F)
F-63 D SENSOR (CENTER) (F)
F-64 D SENSOR (R.H) (F)
F-65 COMBINATION SWITCH (F)
I-18 JOINT CONNECTOR NO.2 (I)
MO-01 AIR BAG MODULE
FI-01 FRONT (F)-INSTRUMENT PANEL (I)
( )...WITH POWER WINDOW
FI-04 FRONT (F)-INSTRUMENT PANEL (I)
FE-07 FRONT (F)-ENGINE (E)
(ORANGE)
(BLUE)

TROUBLESHOOTING GUIDE

Troubleshooting Procedure

Troubleshooting of the air bag system is performed using the coded flashing of the air bag system warning lamp. The number of times the the warning lamp flashes is based on the type of fault being detected. Codes are prioritized in such a way that if two or more faults occur at the same time, the highest priority fault indication will dominate until corrected.

Work flow


Check in
Turn ignition switch ON from OFF
Check air bag system warning lamp operation
Warning lamp comes on, then goes off approx. 6 sec. from ignition switch turned ON
Warning lamp does not come on
Warning lamp flashes or remains on
Check if horn sound
If horn does not sound, remove air bag module and reconnect module connectors
Check following possible causes:
• Fuses burned out
• Warning lamp burned out
• Disconnected diagnostic module
• Open circuit between warning lamp and diagnostic module
Check system by referring to flash code table (See below)
Check out
Repair as specified or replace failed part by recommended procedure

Note

- **When the ignition switch is turned ON, an audible alarm may be heard. If so, it indicates a simultaneous warning lamp failure and a problem in the air bag system.**

050UTX-365

Flash code table

Priority	Flash code	Possible cause	Flowchart No.
1	Remains ON	Faulty diagnostic module or poor connection of diagnostic module connector	1 (See page T–139)
2	Flashes three times	Open circuit or poor connection of power source circuit	2 (See page T–140)
3	Flashes five times	Faulty D-sensor (D-sensor remains ON)	3 (See page T–142)
4	Flashes ten times	Faulty diagnostic module (System-down fuse burned)	4 (See page T–143)
5	Flashes four times	Faulty S-sensor	5 (See page T–144)
6	Flashes six times	Faulty air bag module or poor connection of clock spring connector	6 (See page T–146)
7	Flashes eight times	Poor ground of D-sensor	7 (See page T–148)
8	Flashes nine times	Open circuit between diagnostic module and D-sensor	3 (See page T–142)
9	Flashes two times	Poor ground of all D-sensors	7 (See page T–148)

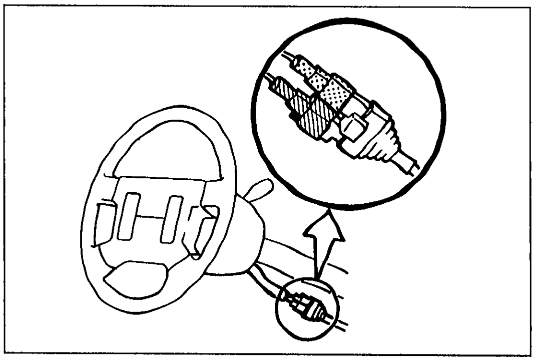
05U0TX-366

Flowchart No.	• Fault indication ..... Warning lamp remains ON • Possible cause ...... Faulty diagnostic module or poor connection of diagnostic module connector
1	

05U0TX-367

Caution

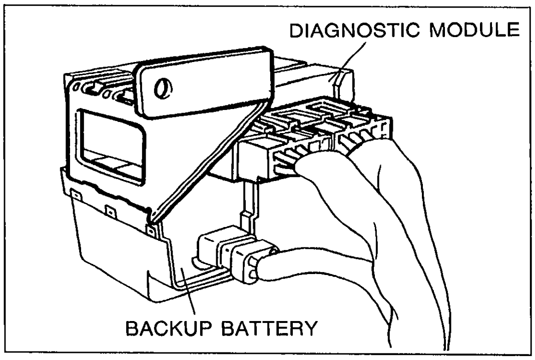
- **Before troubleshooting, read SERVICE PRECAUTION on page T–133.**



05U0TX-368

Remedy

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).



05U0TX-369

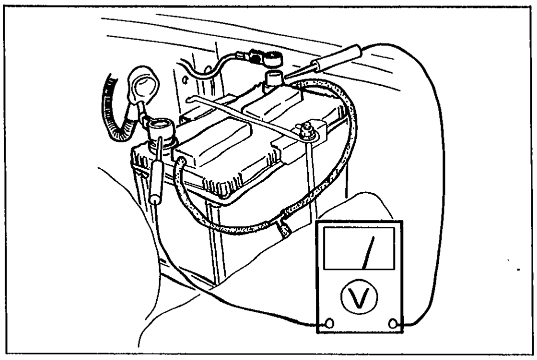
3. Check for proper connection of the diagnostic module connectors.
4. If the connector is loose or disconnected, reconnect it.
5. If the connection is OK, replace the diagnostic module.

Flowchart No.	• **Fault indication ..... Warning lamp flashes three times** • **Possible cause ...... Open circuit or poor connection of power source circuit**
2	

05U0TX-370

Caution

- **Before troubleshooting, read SERVICE PRECAUTION on page T–133.**

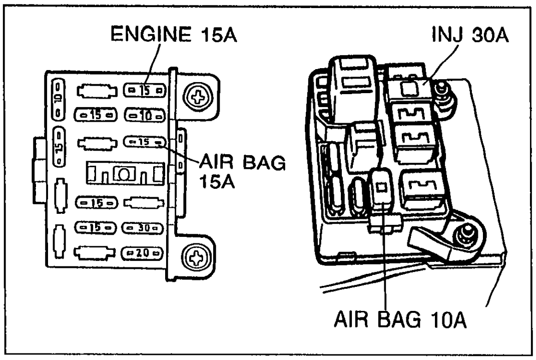


05U0TX-371

Step 1

Measure the battery voltage.

Battery voltage	Action
More than 9V	Go to Step 2
Less than 9V	Charge battery by recomended procedure (Refer to Section G)



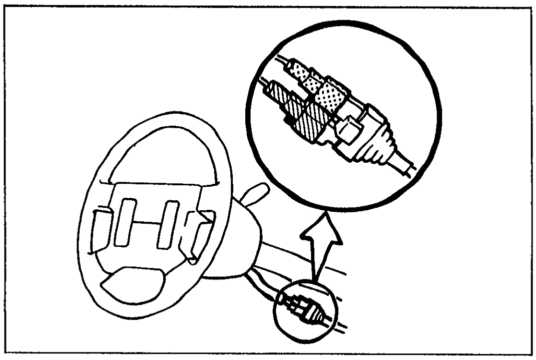
05U0TX-372

Step 2

1. Check the following fuses.

Fuse	Location
INJ 30A	Main fuse block
AIR BAG 15A	Fuse box
AIR BAG 10A	Main fuse block
ENGINE 15A	Fuse box

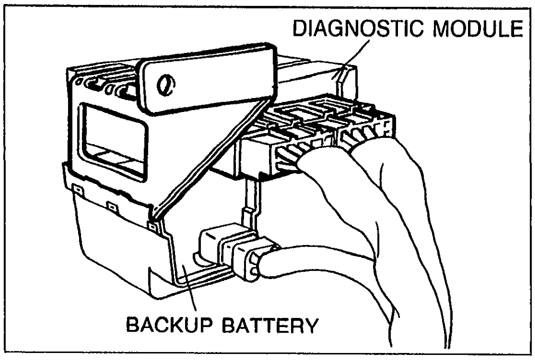
2. If a fuse burned, replace it.
3. If the fuses are OK, go to Step 3.



05U0TX-373

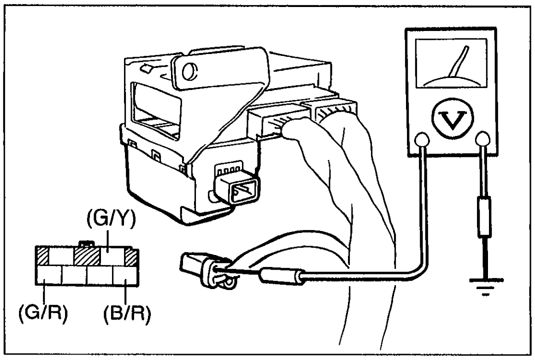
Step 3

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).



05U0TX-374

3. Check for proper connection of the backup battery connector.
4. If the connector is loose or disconnected, reconnect it.
5. If the connection is OK, go to Step 4.

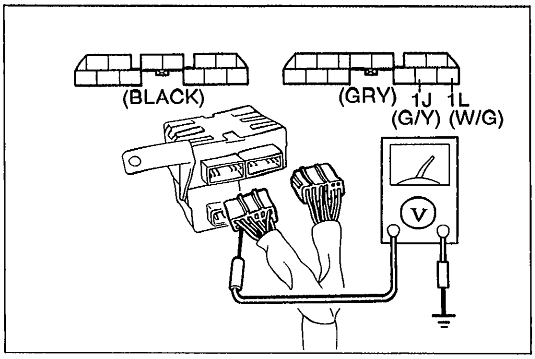


05U0TX-375

Step 4

1. Disconnect the backup battery connector.
2. Reconnect the negative battery cable.
3. Measure the voltage at terminal-wire (G/R) of the backup battery connector.

Wire	Voltage	Action
(G/R)	12V	Go to Step 5
	0V	Replace wire harness assembly



05U0TX-376

Step 5

1. Disconnect the negative battery cable.
2. Disconnect the diagnostic module connector.
3. Reconnect the negative battery cable.
4. Measure the voltage at the terminal-wires of the diagnostic module connector.

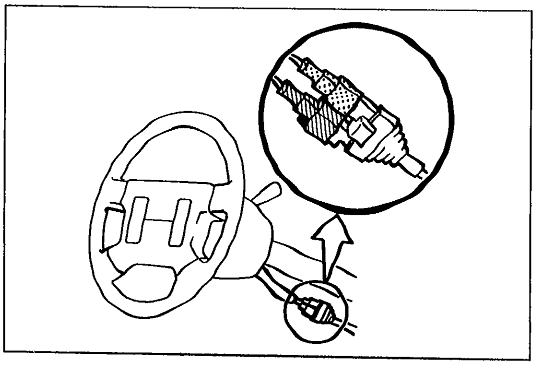
Terminal-wire	Voltage	Action
1L (W/G)	12V	Next, check terminal-wire 1J (G/Y)
	0V	Replace wire harness assembly
1J (G/Y)	12V	Replace diagnostic module
	0V	Replace wire harness assembly

Flowchart No.	
3	• **Fault indication ..... Warning lamp flashes five times or nine times** • **Possible cause ...... Faulty D-sensor (CNT, LH or RH)**

05U0TX-377

Caution

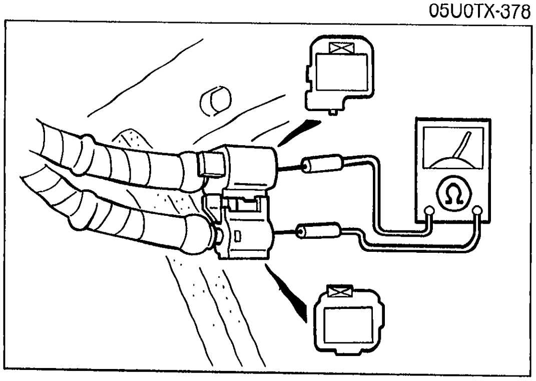
- **Before troubleshooting, read SERVICE PRECAUTION on page T–133.**



05U0TX-378

Step 1

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).

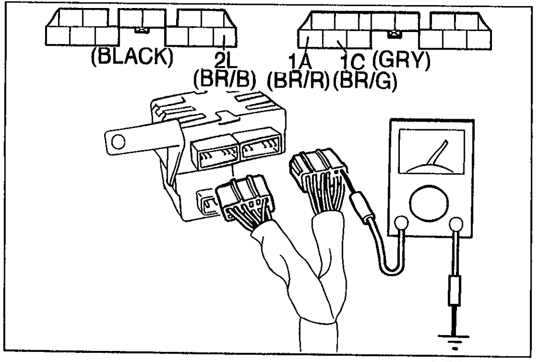


05U0TX-379

3. Disconnect all D-sensor (CNT, LH and RH) connectors, and measure the resistance of each sensor.

Resistance: Approx. 1.2 kΩ

4. If not as specified, replace the sensor.
5. If correct, go to Step 2.



05U0TX-380

Step 2

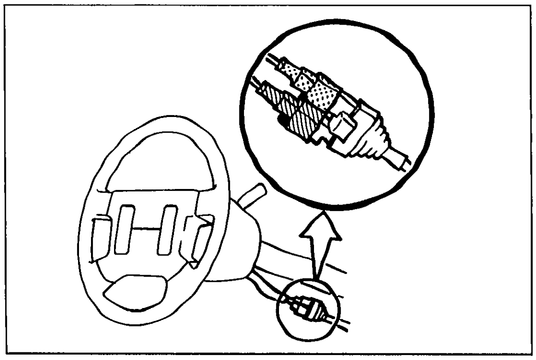
1. Reconnect all D-sensor connectors.
2. Disconnect the diagnostic module connector.
3. Measure the resistance between the following terminal-wire of the diagnostic module connector and a body ground.

Terminal-wire	Resistance	Action
1C (BR/G)	Approx. 1.2 kΩ	Next, check terminal-wire 1A (BR/R)
	Other 1.2 kΩ	Replace wire harness
1A (BR/R)	Approx. 1.2 kΩ	Next, check terminal-wire 2L (BR/B)
	Other 1.2 kΩ	Replace wire harness
2L (BR/B)	Approx. 1.2 kΩ	Replace diagnostic module
	Other 1.2 kΩ	Replace wire harness

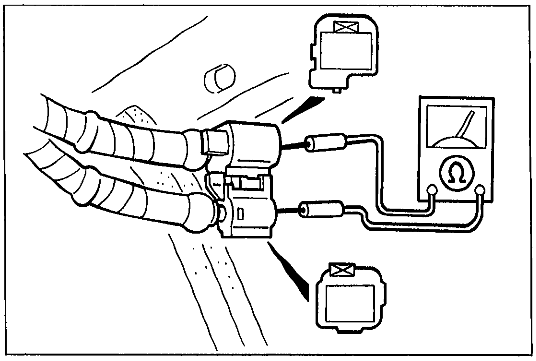
Flowchart No.	• **Fault indication ..... Warning lamp flashes ten times** • **Possible cause ...... Faulty diagnostic module (System down fuse burned)**
4	

05U0TX-381

Caution
- **Before troubleshooting, read SERVICE PRECAUTION on page T–133.**


05U0TX-382

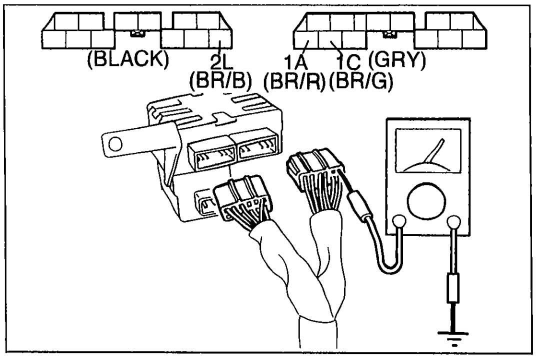
Step 1
1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).


05U0TX-383

3. Disconnect all D-sensor (CNT, LH and RH) connectors, and measure the resistance of each sensor.

Resistance: Approx. 1.2 kΩ

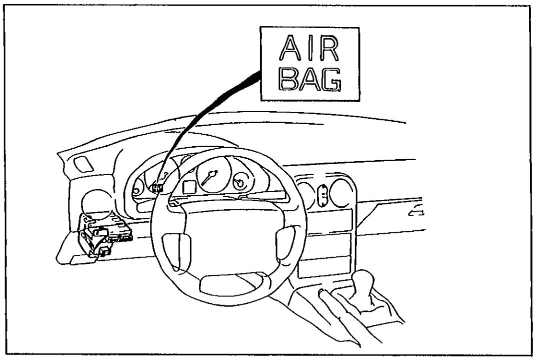
4. If not as specified, replace the sensor, then go to Step 3.
5. If correct, go to Step 2.



05U0TX-384

Step 2
1. Reconnect all D-sensor connectors.
2. Disconnect the diagnostic module connector.
3. Measure the resistance between the following terminal-wires of the diagnostic module connector and a body ground.

Terminal-wire	Resistance	Action
1C (BR/G)	Approx. 1.2 kΩ	Next, check terminal-wire 1A (BR/R)
	Other 1.2 kΩ	Replace wire harness, then go to Step 3
1A (BR/R)	Approx. 1.2 kΩ	Next, check terminal-wire 2L (BR/B)
	Other 1.2 kΩ	Replace wire harness, then go to Step 3
2L (BR/B)	Approx. 1.2 kΩ	Go to Step 3
	Other 1.2 kΩ	Replace wire harness, then go to Step 3



05U0TX-385

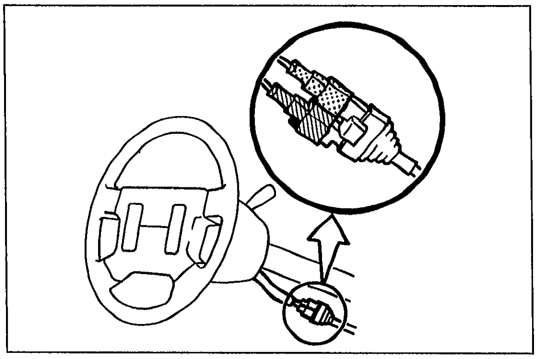
Step 3
1. Reconnect the diagnostic module connector.
2. Reconnect the clock spring connector.
3. Reconnect the negative battery cable.
4. Turn the ignition switch ON, and monitor the warning lamp operation.
5. If the warning lamp flashes ten times again, replace the diagnostic module.

Flowchart No.	
5	• **Fault indication ..... Warning lamp flashes four times** • **Possible cause ...... Faulty S-sensor**

05U0TX-386

Caution

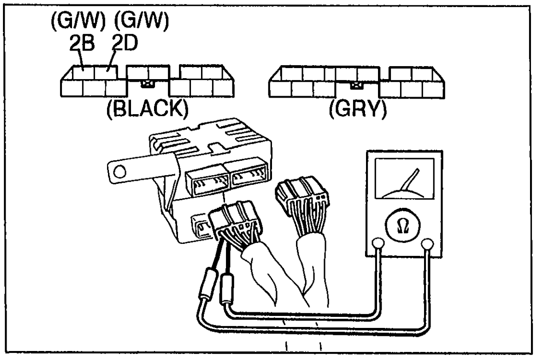
- **Before troubleshooting, read SERVICE PRECAUTION on page T–133.**



05U0TX-387

Step 1

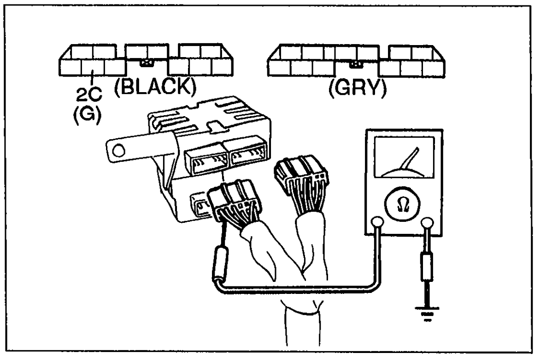
1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).



05U0TX-388

3. Disconnect the diagnostic module connector.
4. Check continuity between terminal-wires of the diagnostic module connector.

Terminal-wire	Continuity	Action
2B (G/W)— 2D (G/W)	Yes	Go to Step 2
	No	Replace wire harness

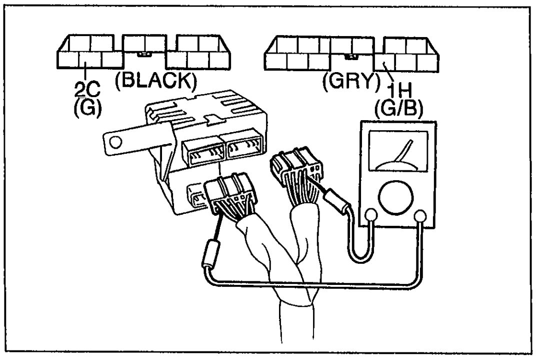


05U0TX-389

Step 2

1. Disconnect the diagnostic connector.
2. Check continuity between terminal-wire of diagnostic module connector and a body ground.

Terminal-wire	Continuity	Action
2C (G)— Body ground	Yes	Go to Step 3
	No	Go to Step 5

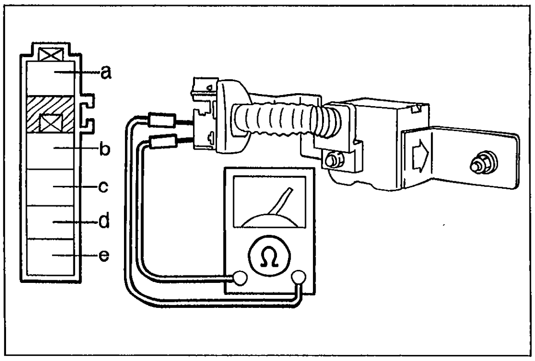


05U0TX-390

Step 3

1. Disconnect the diagnostic module connectors.
2. Check continuity between terminal-wires of the diagnostic module connector.

Terminal-wire	Continuity	Action
1H (G/B)— 2C (G)	Yes	Go to Step 5
	No	Go to Step 4

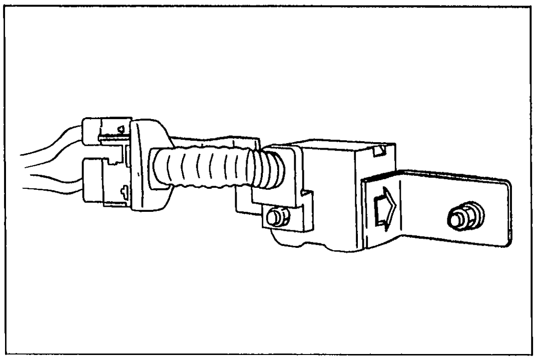


05U0TX-391

Step 4

1. Disconnect the S-sensor connectors.
2. Check continuity between terminals of the sensor.

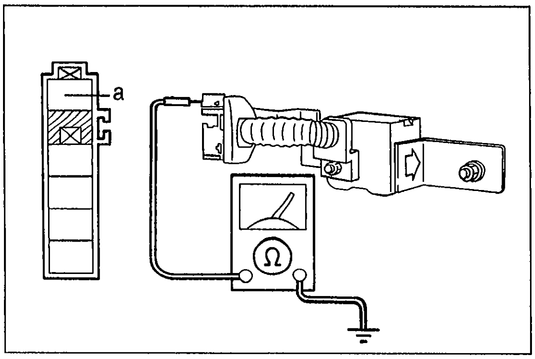
Terminal	Continuity	Action
(b)—(e)	Yes	Replace wire harness
	No	Replace S-sensor



05U0TX-392

Step 5

1. Verify that the S-sensor is installed properly.
2. If the installation is poor, clean the mounting and tighten the bolts.
3. If correct, go to Step 6.



05U0TX-393

Step 6

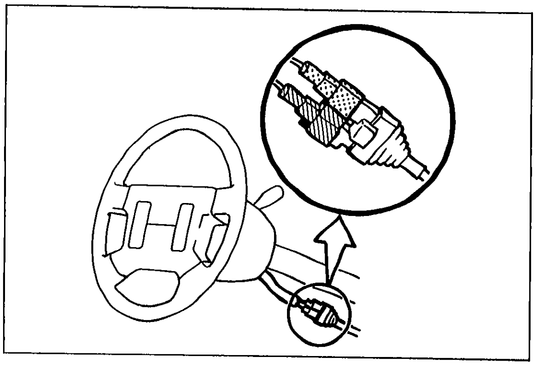
1. Disconnect the S-sensor connectors.
2. Check continuity between terminal of the sensor and a body ground.

Terminal	Continuity	Action
(a)— Body ground	Yes	Replace S-sensor
	No	Replace wire harness

Flowchart No.	• Fault indication ..... Warning lamp flashes six times • Possible cause ...... Faulty air bag module or poor connection of clock spring connector
6	

05U0TX-394

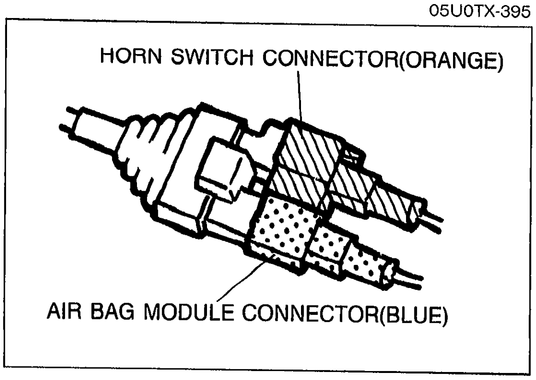
Caution
- **Before troubleshooting, read SERVICE PRECAUTION on page T–133.**



05U0TX-395

Step 1

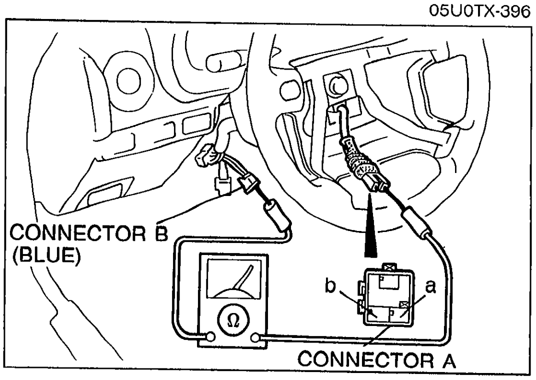
1. Disconnect the negative battery cable.
2. Check for proper connection of the clock spring connectors (Orange and blue).
3. If a connector is loose or disconnected, reconnect it.
4. If the connections are OK, go to Step 2.



05U0TX-396

Step 2

1. Remove the air bag module installation nuts.
2. Verify that the air bag module connector is properly connected.
3. If the connector is loose or disconnected, reconnect it.
4. If the connection is OK, go to Step 3.



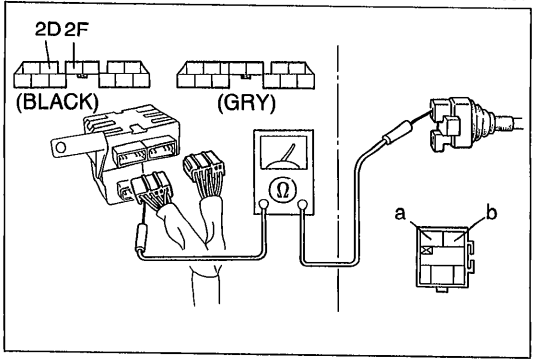
05U0TX-397

Step 3

1. Disconnect the air bag module and clock spring connector.
2. Check continuity between terminals of the clock spring connectors (blue) as shown.

Terminals		Continuity
Connector A	Connector B	
a	A	Yes
b	B	Yes

3. If not as specified, replace the clock spring connector.



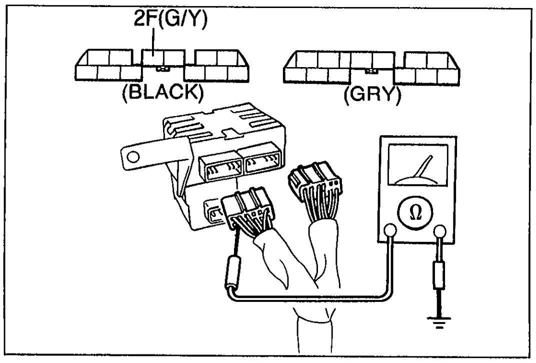
05U0TX-398

Step 4

1. Disconnect the diagnostic module connector.
2. Check continuity between the diagnostic module connector and the clock spring connector (wire harness side) as shown.

Terminal-wire	Continuity
(Diagnostic module) — (Clock spring connector)	
(2D : G/W)—(a : R)	Yes
(2F : G/Y)—(b : G/Y)	Yes

3. If not as specified, replace the wire harness assembly.
4. If correct, go to Step 5.



05U0TX-399

Step 5

1. Check continuity between terminal-wire 2F (G/Y) of the diagnostic module connector and a body ground.

Terminal-wire	Continuity
2F (G/Y)—Body ground	No

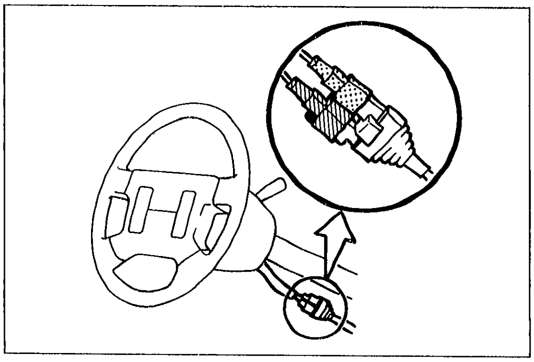
2. If not as specified, replace the wire harness assembly.
3. If correct, replace the air bag module.

Flowchart No.	• **Fault indication ..... Warning lamp flashes two times or eight times** • **Possible cause ...... Poor ground of D-sensor**
7	

05U0TX-400

Caution

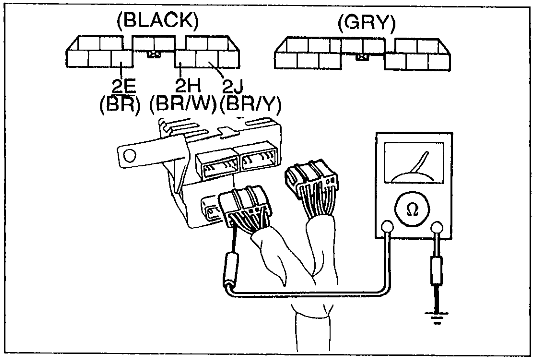
- **Before troubleshooting, read SERVICE PRECAUTION on page T–133.**



05U0TX-401

Step 1

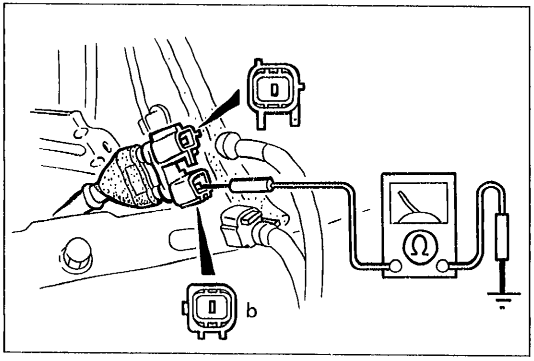
1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).



05U0TX-402

3. Disconnect the diagnostic module connector.
4. Check continuity between the following terminals of the diagnostic module connector and a body ground.

Terminal-wire	Continuity	Action
2J (BR/Y)—Body ground	Yes	Next, check between 2H (BR/W) and body ground
	No	Go to Step 2
2H (BR/W)—Body ground	Yes	Next, check between 2E (BR) and body ground
	No	Go to Step 3
2E (BR)—Body ground	Yes	Replace diagnostic module
	No	Go to Step 4



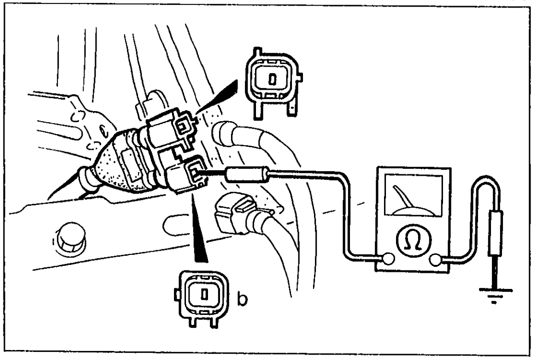
05U0TX-403

Step 2

1. Disconnect the D-sensor (RH) connectors, and check continuity between terminals of the sensor connectors and a body ground.

Terminal	Continuity
b—Body ground	Yes

2. If not as specified, go to Step 5.
3. If correct, replace the wire harness assembly.



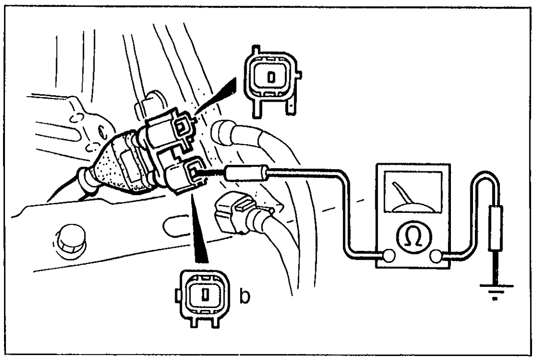
05U0TX-404

Step 3

1. Disconnect the D-sensor (CNT) connectors, and check continuity between terminals of the sensor connector and a body ground.

Terminal	Continuity
b—Body ground	Yes

2. If not as specified, go to Step 5.
3. If correct, replace the wire harness assembly.



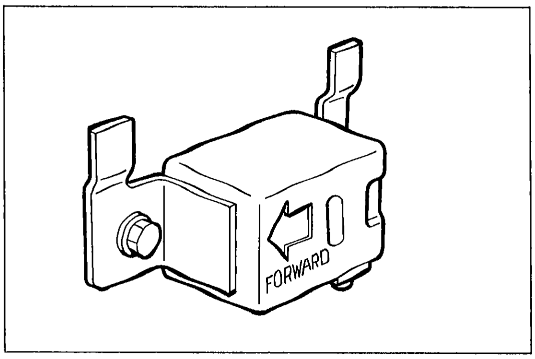
05U0TX-405

Step 4

1. Disconnect the D-sensor (LH) connectors, and check continuity between terminals of the sensor connector and a body ground.

Terminal	Continuity
b—Body ground	Yes

2. If not as specified, go to Step 5.
3. If correct, replace the wire harness assembly.



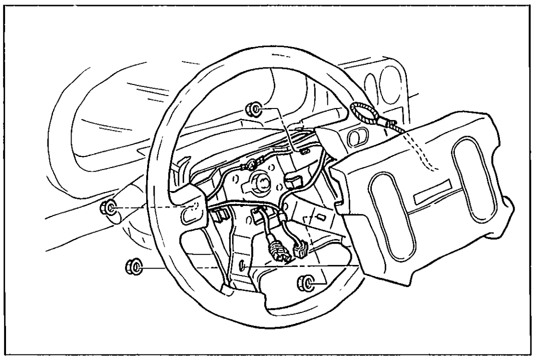
05U0TX-406

Step 5

1. Check that all D-sensors (CNT, LH and RH) are properly installed.
2. If an installation bolt is loose, tighten it.
3. If correct, replace the faulty D-sensor.

REMOVAL / INSTALLATION

Air Bag Module

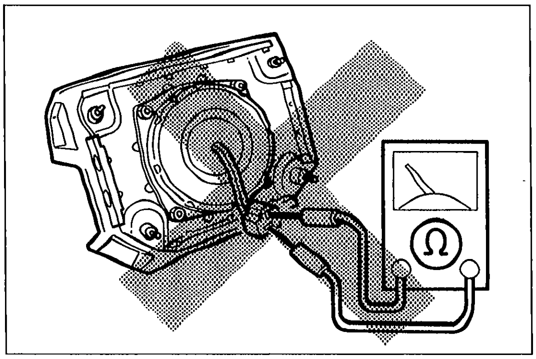


05U0TX-407

1. Disconnect the negative battery cable.
2. Remove the nuts and remove the air bag module.

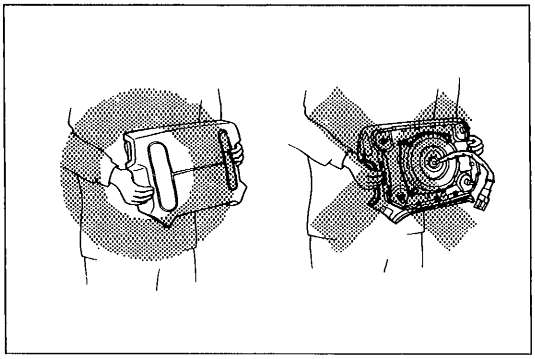
Caution

- **Do not try to disassemble the air bag module. The air bag module must only be replaced as an assembly.**



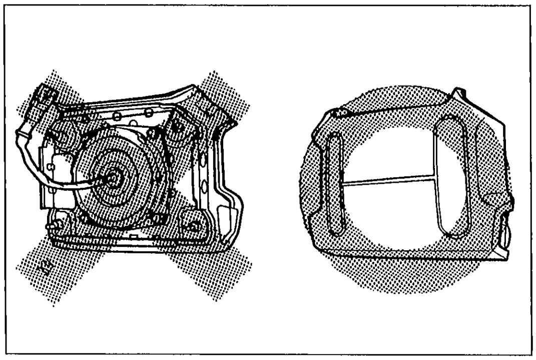
05U0TX-408

- **Do not use an ohmmeter for inspection of the air bag module, it may cause an accidental deployment of the air bag.**



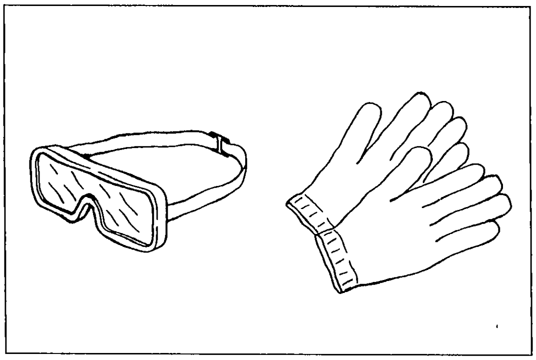
05U0TX-409

- **When carrying a live (unactivated) air bag module, make sure the trim cover is pointed away from your body to prevent personal injury in the event of an accidental deployment.**



05U0TX-410

- **When placing a live air bag module on any surface, always face the trim cover upward to reduce the motion of the module if it is accidentally deployed.**

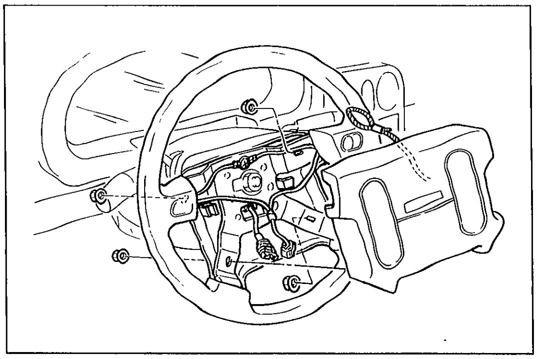


05U0TX-411

- **When handling a deployed air bag module, wear gloves and safety glasses, because the deployed air bag module may contain deposits of sodium hydroxide, a caustic by-product of the gas generant combustion.**

- **When an air bag module is to be disposed of, it must be disposed following the proper procedue recommended for the specific situation.**

05U0TX-412

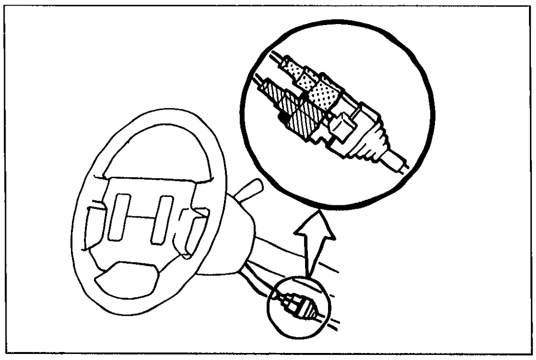


05U0TX-413

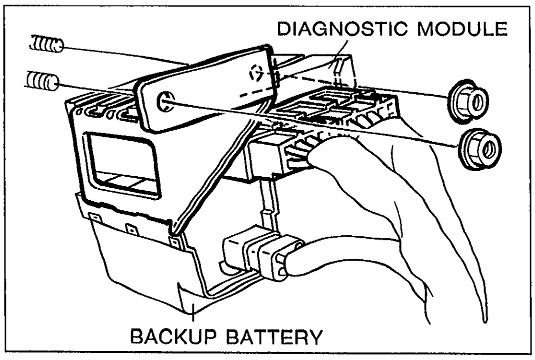
3. Install in the reverse order of removal.

Diangosis Module and Backup Battery

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).



05U0TX-414



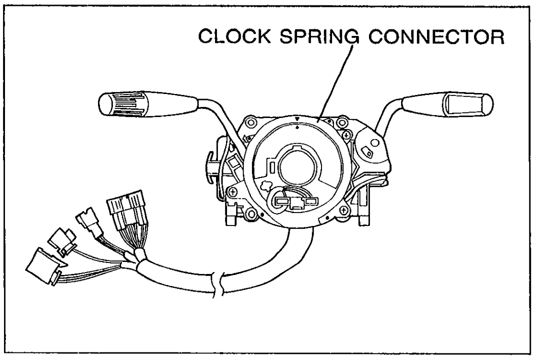
05U0TX-415

3. Disconnect the diagnostic module and backup battery connectors.
4. Remove the nuts and remove the diagnostic module and backup battery as an assembly.
5. Install the diagnostic module and backup battery in the reverse order of removal.

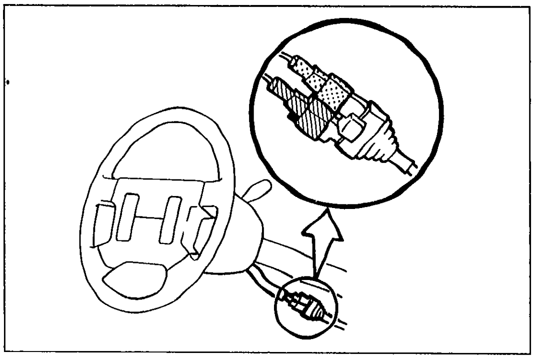
Clock Spring Connector Assembly

Note

- **The clock spring connector assembly is part of the combination switch. When replacing the clock spring connector assembly, replace it with the combination switch as an assembly.**

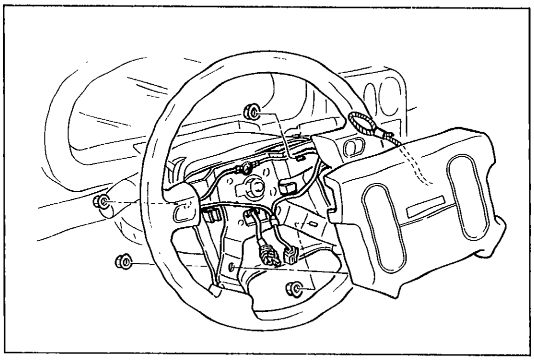


05U0TX-416



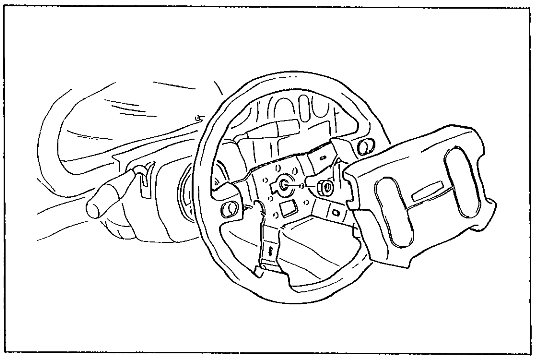
05U0TX-417

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring and combination switch connectors.



05U0TX-418

3. Remove the nuts and remove the air bag module. (Refer to page T–150.)

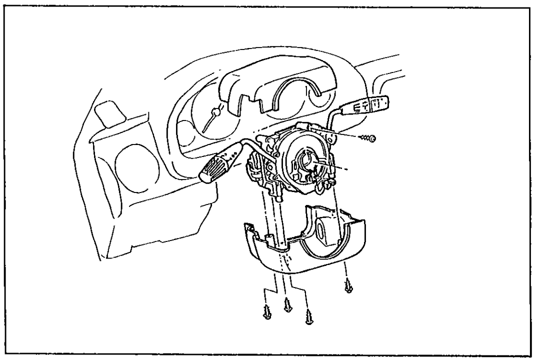


05U0TX-419

Caution

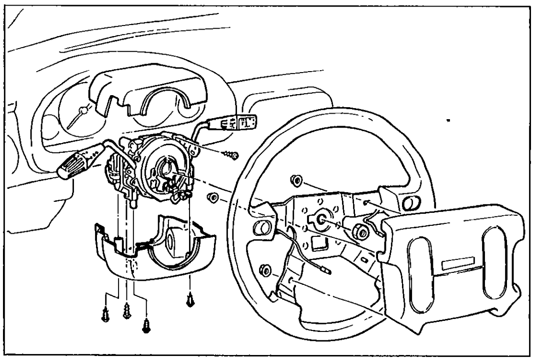
- **Do not strike the steering shaft with a hammer; the collapsible shaft may collapse.**

4. Remove the nut and remove the steering wheel with a steering wheel puller.
5. Remove the screws and column cover.



05U0TX-420

6. Loosen the screws and remove the clock spring connector assembly with the combination switch.

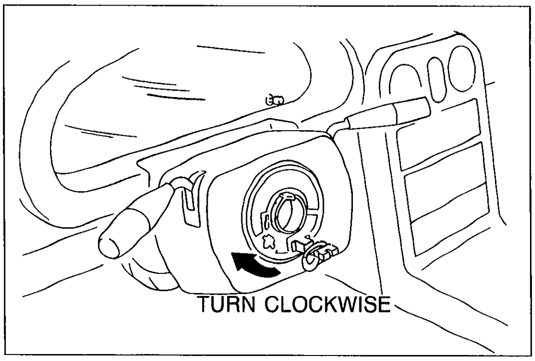


05U0TX-421

7. Install the clock spring connector assembly and combination switch in the reverse order of removal, referring to **Installation Note**.

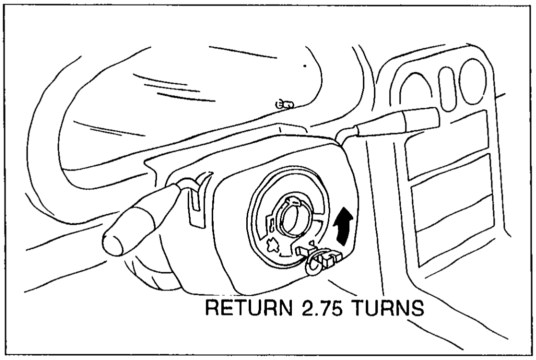
Installation note

- **Before installing the steering wheel, set the clock spring connector as follows:**
  1) Set the front wheels straight ahead.



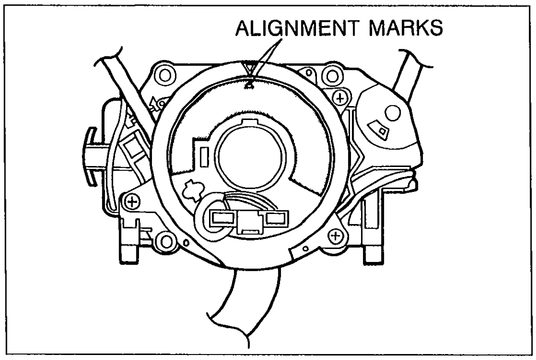
05U0TX-422

2) Turn the clock spring connector clockwise until it stops. (Do not force it.)



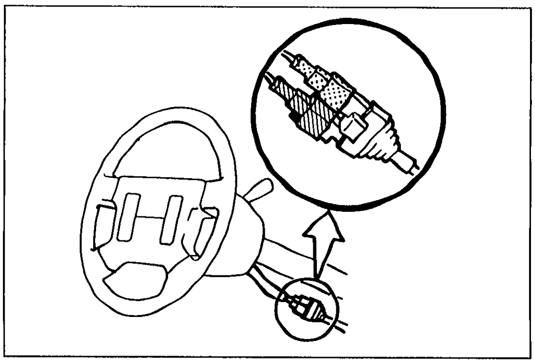
05U0TX-423

3) Return the connector 2.75 turns.



05U0TX-424

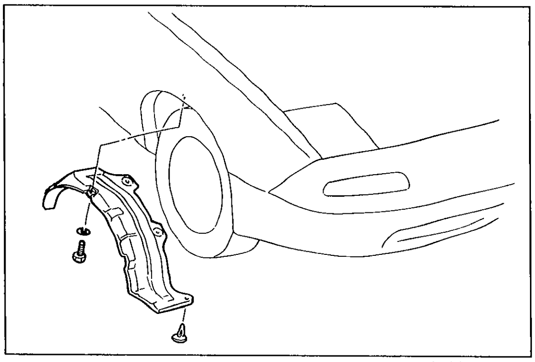
4) Align the marks (counterclockwise) on the clock spring connector and the outer housing.



05U0TX-425

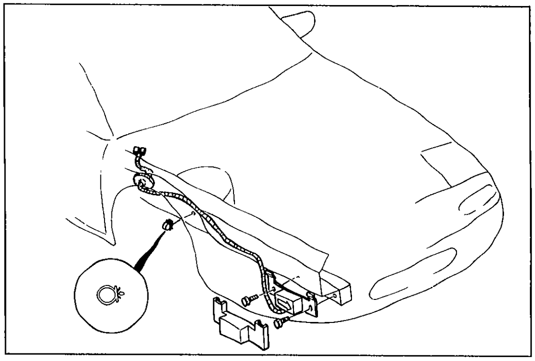
D-sensor (RH)

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).
3. Remove the nuts and the main fuse block.
4. Disconnect the D-sensor (RH) connectors.



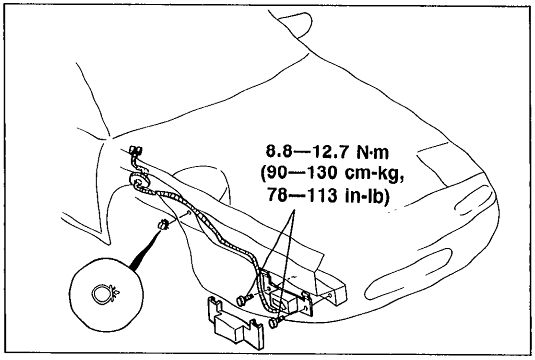
05U0TX-426

5. Remove the undercover.



05U0TX-427

6. Remove the clips and remove the bolts and the D-sensor (RH).



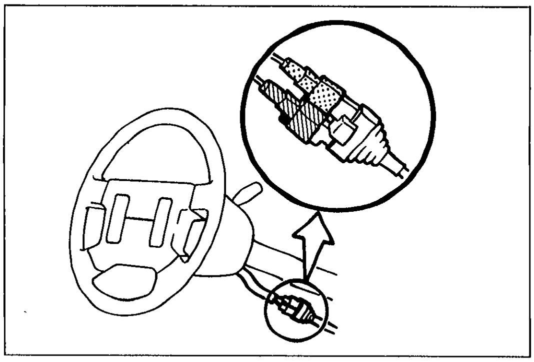
05U0TX-428

7. Install the D-sensor (RH), in the reverse order of removal, referring to the **Installation Note**.

Installation note

- **Position the sensor with the arrow toward the front of the vehicle.**
- **Tighten the mounting bolts to the specific torque.**

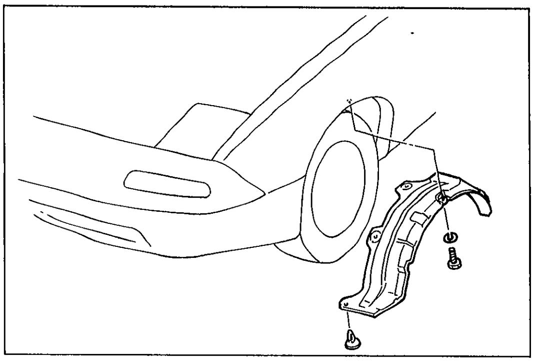
Tightening torque:
8.8—12.7 N·m (90—130 cm-kg, 78—113 in-lb)



05U0TX-429

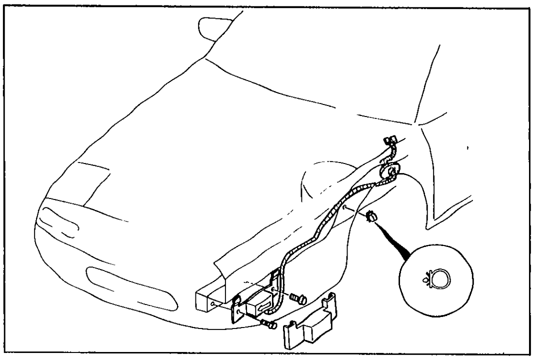
D-sensor (LH)

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).
3. Remove the bolts and the relay box.
4. Disconnect the D-sensor (LH) connectors.



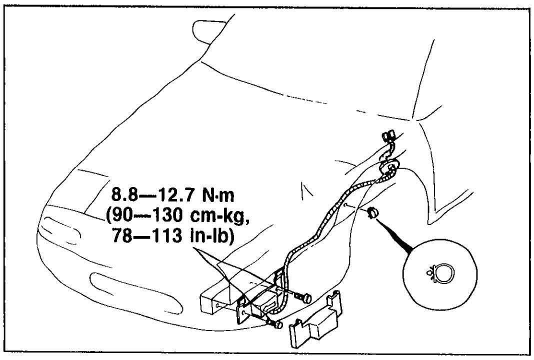
05U0TX-430

5. Remove the undercover.



05U0TX-431

6. Remove the clips and remove the bolts and the D-sensor (LH).



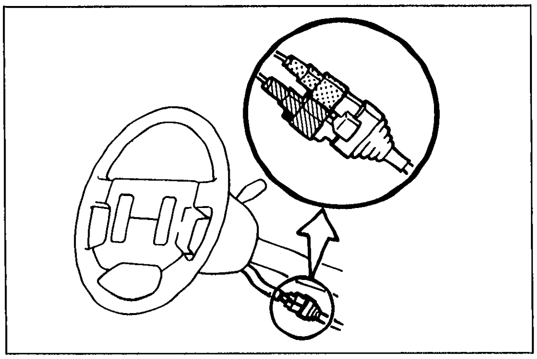
05U0TX-432

7. Install the D-sensor (LH), in the reverse order of removal, referring to the **Installation Note**.

Installation note

- **Position the sensor with the arrow toward the front of the vehicle.**
- **Tighten the mounting bolts to the specific torque.**

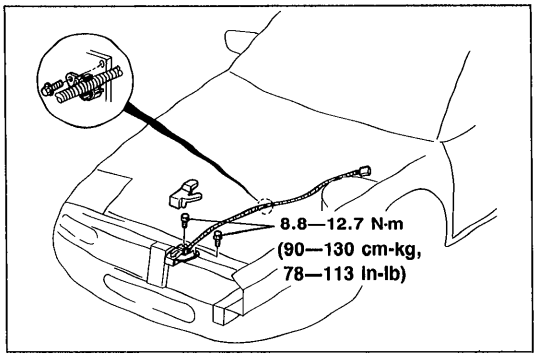
Tightening torque:
8.8—12.7 N·m (90—130 cm-kg, 78—113 in-lb)



05U0TX-433

D-sensor (CNT)

1. Disconnect the negative battery cable.
2. Disconnect the D-sensor (CNT) connectors.



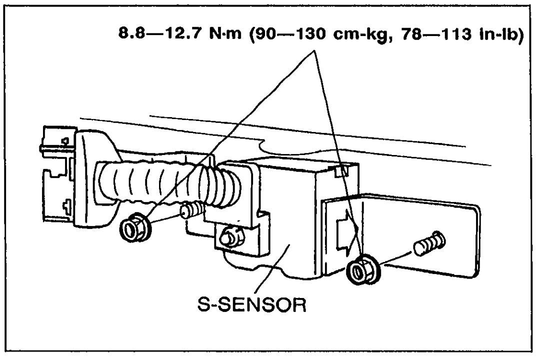
05U0TX-434

3. Remove the wiring clips.
4. Remove the bolts and the D-sensor (CNT).
5. Install the D-sensor (CNT) in the reverse order of removal, referring to the **Installation Note**.

Installation note

- **Position the sensor with the arrow toward the front of the vehicle.**
- **Tighten the mounting bolts to the specified torque.**

Tightening torque:
8.8—12.7 N·m (90—130 cm-kg, 78—113 in-lb)



05U0TX-435

S-sensor

1. Disconnect the negative battery cable.
2. Remove the instrument panel. (Refer to Section S.)
3. Disconnect the S-sensor connectors.
4. Remove the bolts and S-sensor.
5. Install the S-sensor in the reverse order of removal, referring to the **Installation Note**.

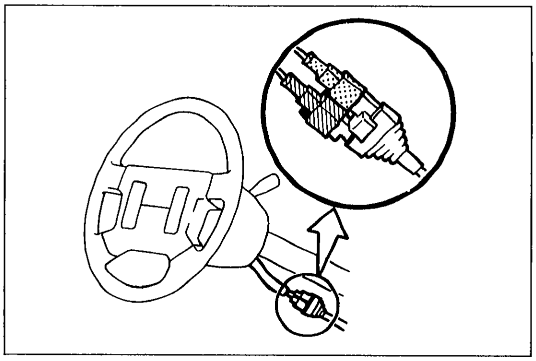
Installation note

- **Position the sensor with the arrow toward the front of the vehicle.**
- **Tighten the mounting bolts to the specified torque.**

Tightening torque:
8.8—12.7 N·m (8.8—12.7 cm-kg, 78—113 in-lb)

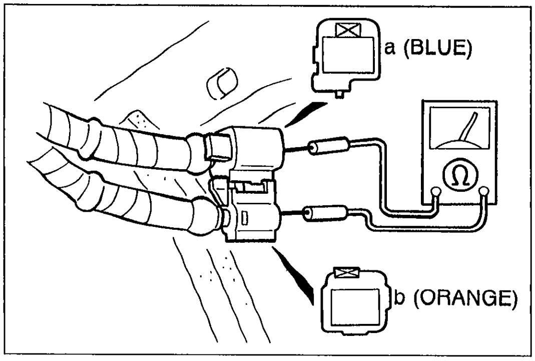
INSPECTION

D-sensor (LH)



05U0TX-436

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).
3. Remove the bolts and the relay box.
4. Disconnect the D-sensor (LH) connector.



05U0TX-437

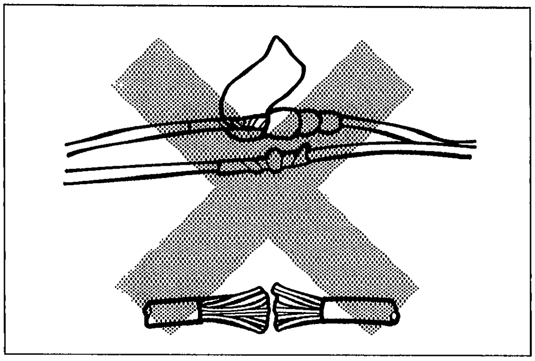
Caution

- **Do not connect an ohmmeter to the harness side connector.**
  Connect the ohmmeter to the sensor side connectors only.

5. Measure resistance between the terminals of the sensor connectors.

Terminals	Resistance
a (blue)—b (orange)	Approx. 1.2 kΩ

6. If not as specified, replace the sensor.

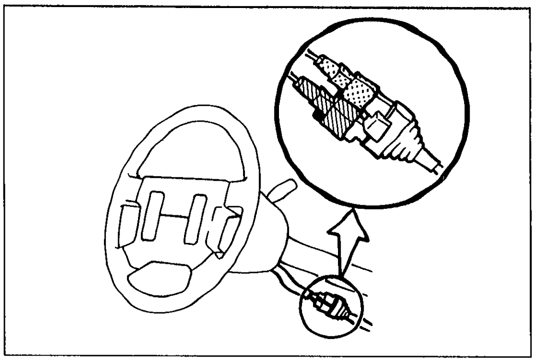


05U0TX-438

Caution

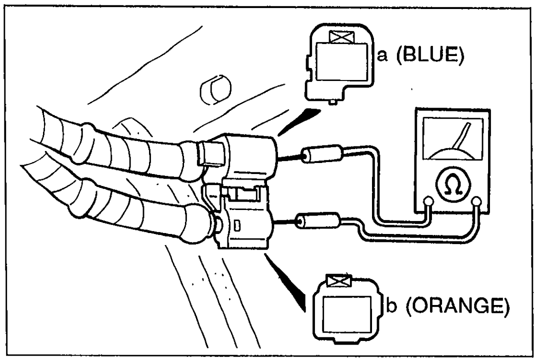
- **Do not try to repair the wire harness.**

D-sensor (RH)



05U0TX-439

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).
3. Remove the bolts and the main fuse block.
4. Disconnect the D-sensor (RH) connector.



05U0TX-440

Caution

- **Do not connect an ohmmeter to the harness side connector.**
  Connect the ohmmeter to the sensor side connectors only.

5. Measure resistance between the terminals of the sensor connectors.

Terminals	Resistance
a (blue)—b (orange)	Approx. 1.2 kΩ

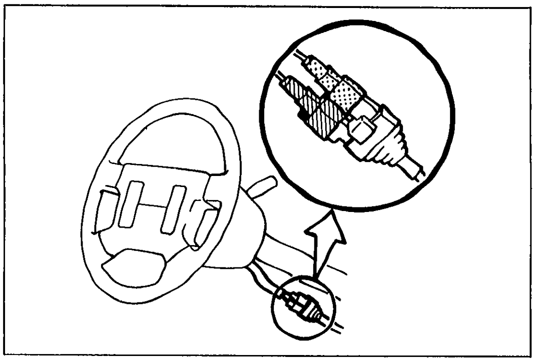
6. If not as specified, replace the sensor.

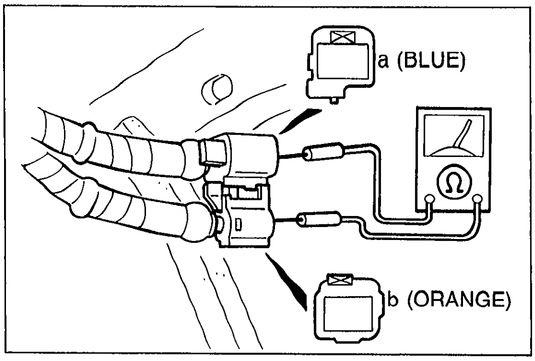
Caution

- **Do not try to repair the wire harness.**

D-sensor (CNT)

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).
3. Disconnect the D-sensor (CNT) connectors.


05U0TX-441



05U0TX-442

Caution

- **Do not connect an ohmmeter to the harness side connector.**
  Connect the ohmmeter to the sensor side connectors only.

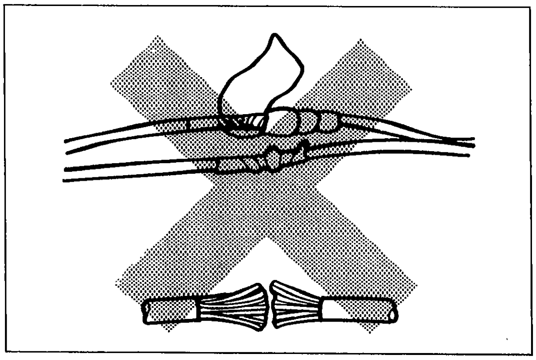
4. Measure resistance between the terminals of the sensor connectors.

Terminals	Resistance
a (blue)—b (orange)	Approx. 1.2 kΩ

5. If not as specified, replace the sensor.

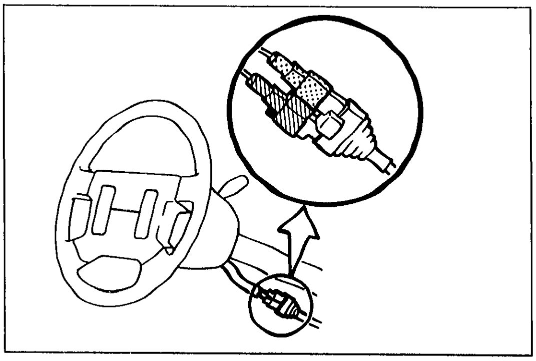
Caution

- **Do not try to repair the wire harness.**


05U0TX-443

S-sensor

1. Disconnect the negative battery cable.
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).
3. Remove the instrument panel assembly.
4. Disconnect the S-sensor connectors.

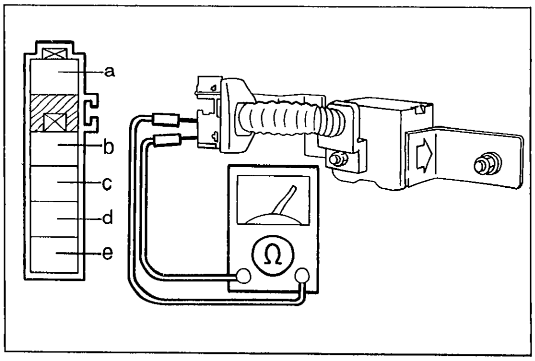

05U0TX-444

Caution

- **Do not connect an ohmmeter to the harness side connector.**
  Connect the ohmmeter to the sensor side connectors only.

4. Check resistance between the terminals of the sensor connectors.

Terminals	Continuity
b—e	Yes
c—d	Yes
b—c	No



05U0TX-445

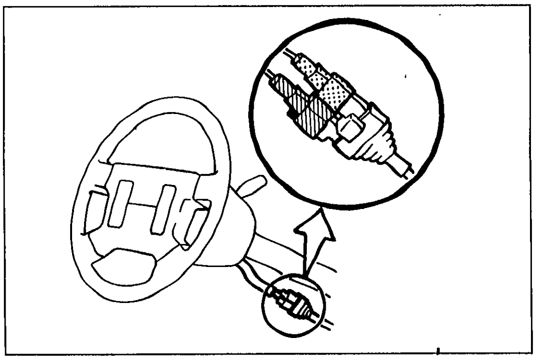
5. If not as specified, replace the sensor.

Caution

- **Do not try to repair the wire harness.**

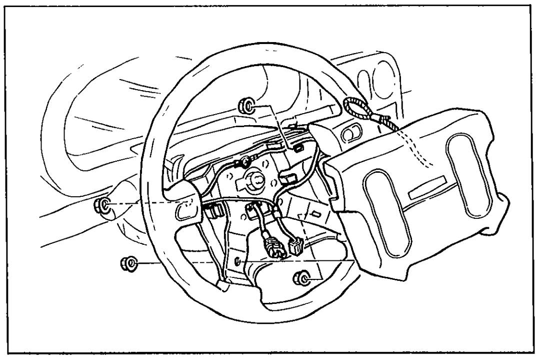
Clock Spring Connector Assembly

1. Disconnect the negative battery cable.
2. Remove the knee protector and disconnect the clock spring connectors (Orange and blue).



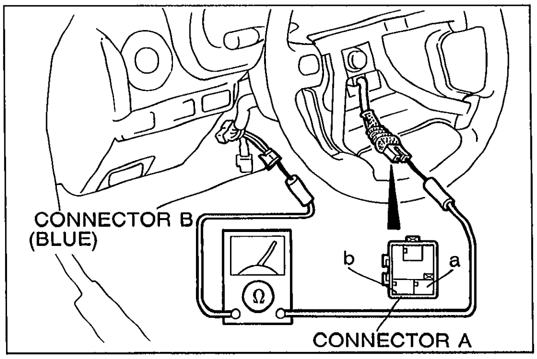
05U0TX-446

3. Remove the nuts and remove the air bag module.



05U0TX-447

4. Check continuity between terminals of the clock spring connectors (blue) as shown.



05U0TX-448

Terminals		Continuity
Connector A	Connector B	
a	A	Yes
b	B	Yes

5. If not as specified, replace the clock spring connector.

Note

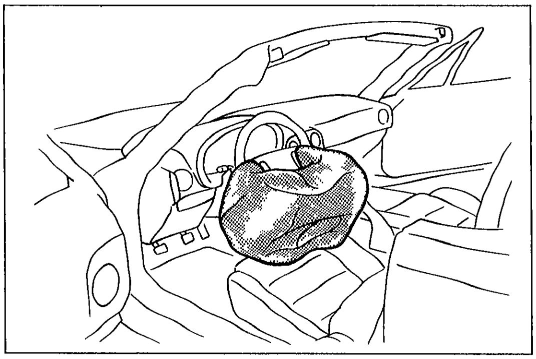
- **The clock spring connector assembly is part of the combination switch. When replacing the clock spring connector assembly, replace it with combination switch as an assembly.**

AIR BAG MODULE DISPOSAL PROCEDURE

When an air bag module is to be disposed of, it must be disposed following the proper procedure recommended for the partinular situation. These situations and the disposal recommendations are shown in the following table and described in detail below.

Condition	Disposal instraction
Faulty but live air bag module replaced	Air bag module must be return to location designated by Mazda
Vehicle to be scrapped with live air bag module	Air bag module must be deliberately deployed (See below)
Vehicle to be scrapped with deployed air bag module	Scrap air bag module with vehicle in usual manner
Deployed air bag module replaced	Scrap air bag module in usual manner

05U0TX-449



05U0TX-450

Deployed Air Bag Module

To service a deployed air bag, it must be replaced with an new module. The deployed air bag module can be disposed of in the usual manner as any part to be scrapped.

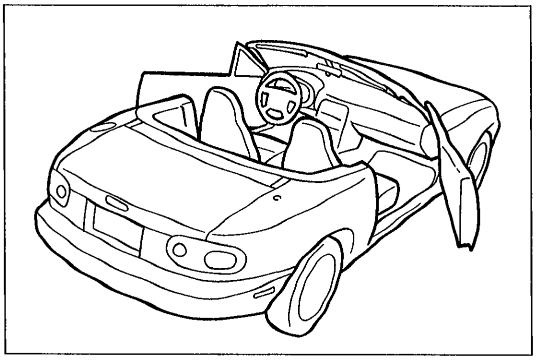
Warning

- **When handling a deployed air bag module, wear gloves and safety glasses, because the deployed air bag module may contain deposits of sodium hydroxide, a caustic by product of the gas generant combustion.**

Live Air Bag Module

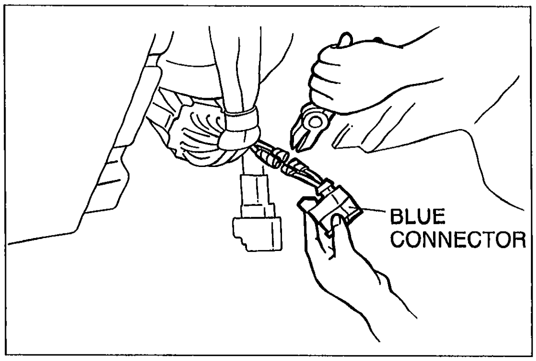
When a live air bag module is scrapped with the vehicle, the module should be deployed before it is scrapped.

A deliberate deployment should be performed as follows:



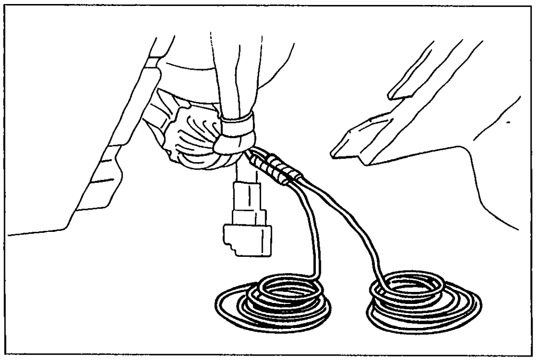
05U0TX-451

1. Locate the vehicle outdoors away from other persons, and open the convertible top and doors.
2. Disconnect the negative battery cable.



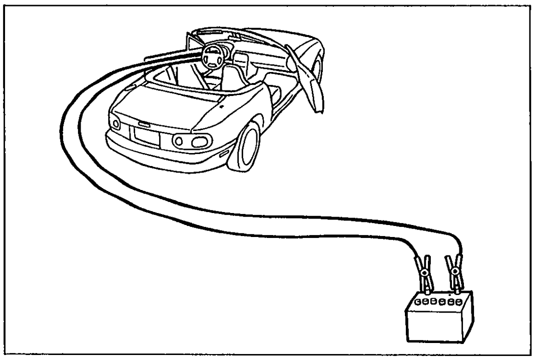
05U0TX-452

3. Verify that the air bag module is firmly mounted to the steering wheel.
4. Remove the knee protector and disconnect the clock spring connectors.
5. Cut the clock spring connector (blue) wires.



05U0TX-453

6. Connect two jumper wires **[6 m (20 ft) min]** to the clock spring cut wires as shown.

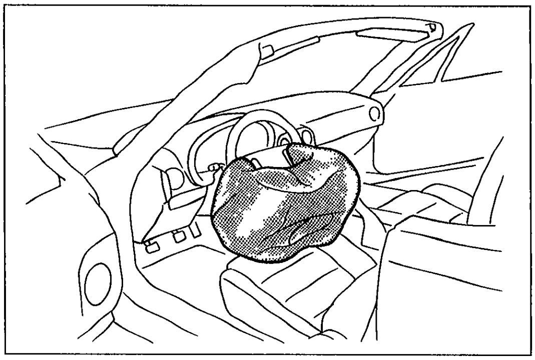


05U0TX-454

Warning

- **All personnel should be at least 6 m (20 ft) away from the vehicle to ensure personnel safety and due to the loud sound that occurs when the air bag deploys.**

7. **From 6 m (20 ft)**, connect the jumper wires to the terminals of a 12V vehicle battery to trigger the igniter.



05U0TX-455

8. Allow at least 10 minutes before approaching the air bag to allow for cooling of the module and dissipation of the effluents.

Warning

- **When handling a deployed air bag module, wear gloves and safety glasses, because the deployed air bag module may contain deposits of sodium hydroxide, a caustic by product of the gas generant combustion.**

9. Remove the deployed air bag module, and scrap it in the usual manner of any part to be scrapped.

HEATER AND AIR CONDITIONER SYSTEMS

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AIR CONDITIONER U–26
  STRUCTURAL VIEW U–26
  REFRIGERANT SYSTEM........................... U–27
  COOLING UNIT U–32
  CONDENSER AND RECEIVER/DRIER U–35
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05U0UX-001

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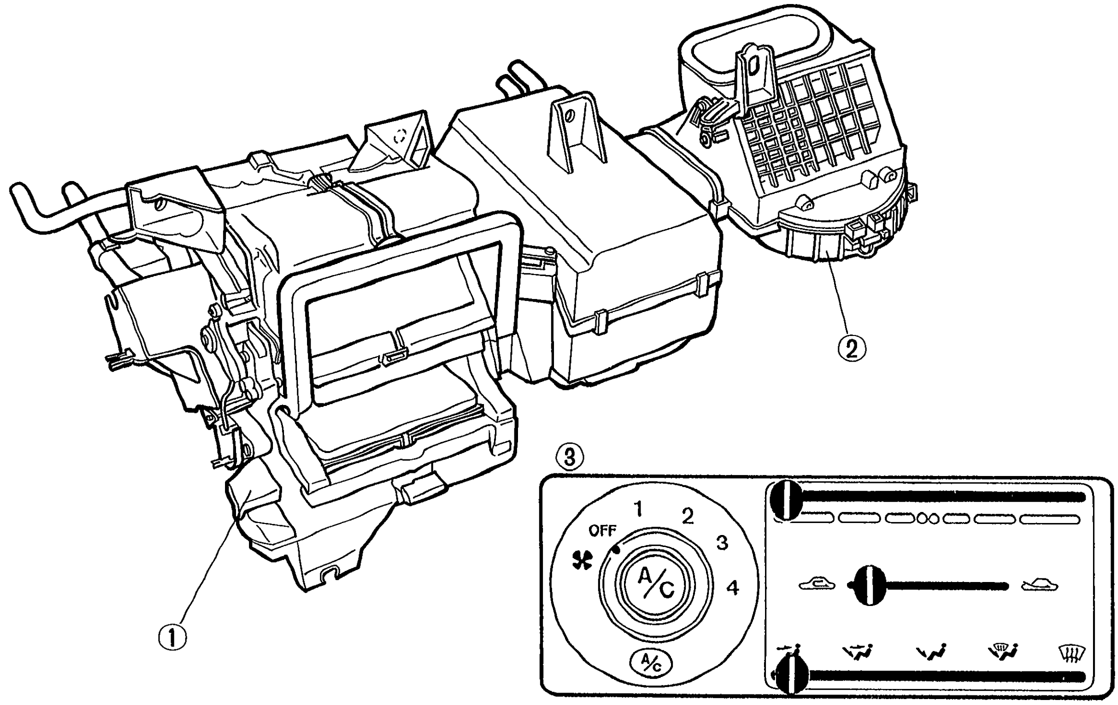
HEATER



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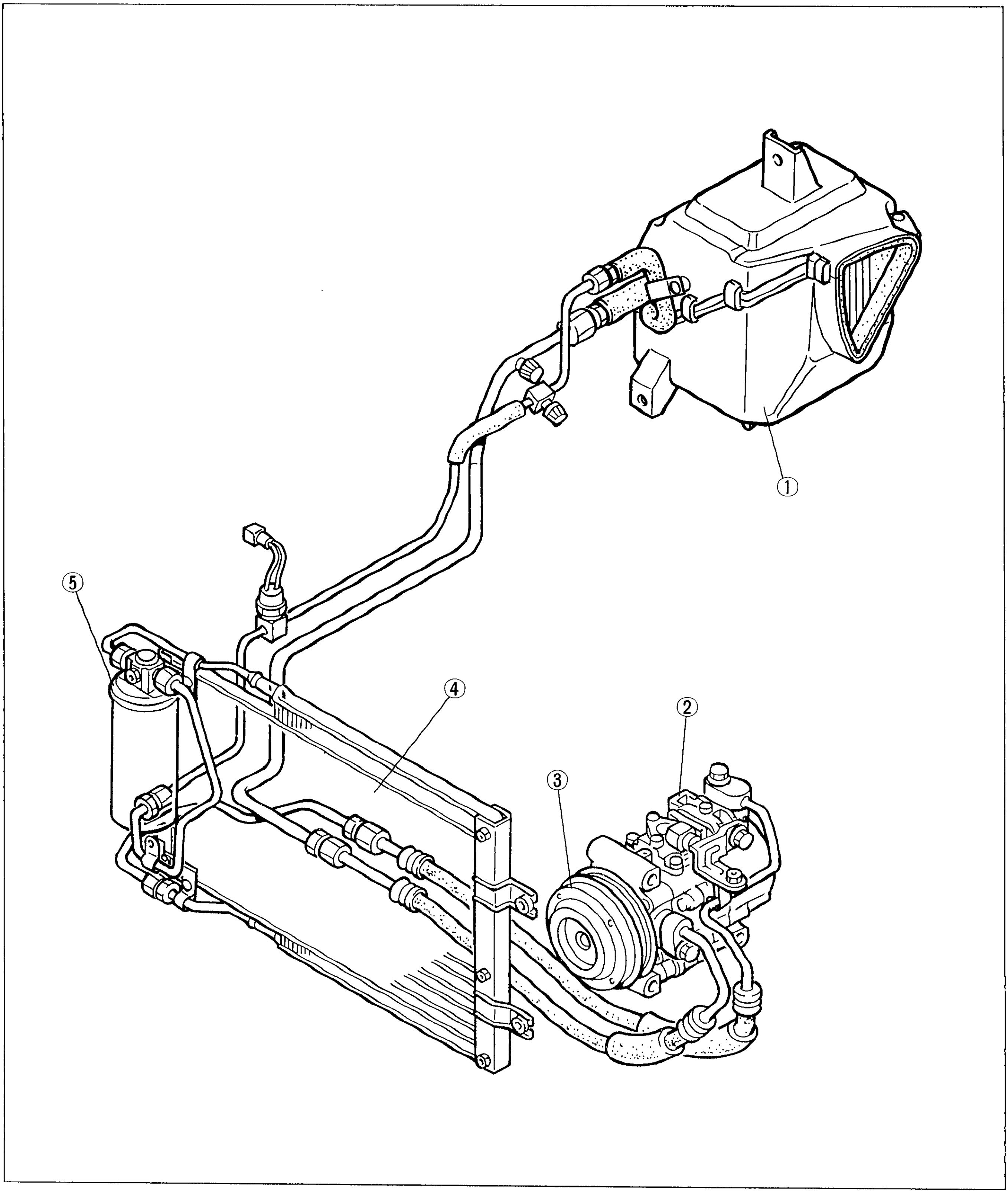
AIR CONDITIONER



05U0UX-003

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2. Compressor
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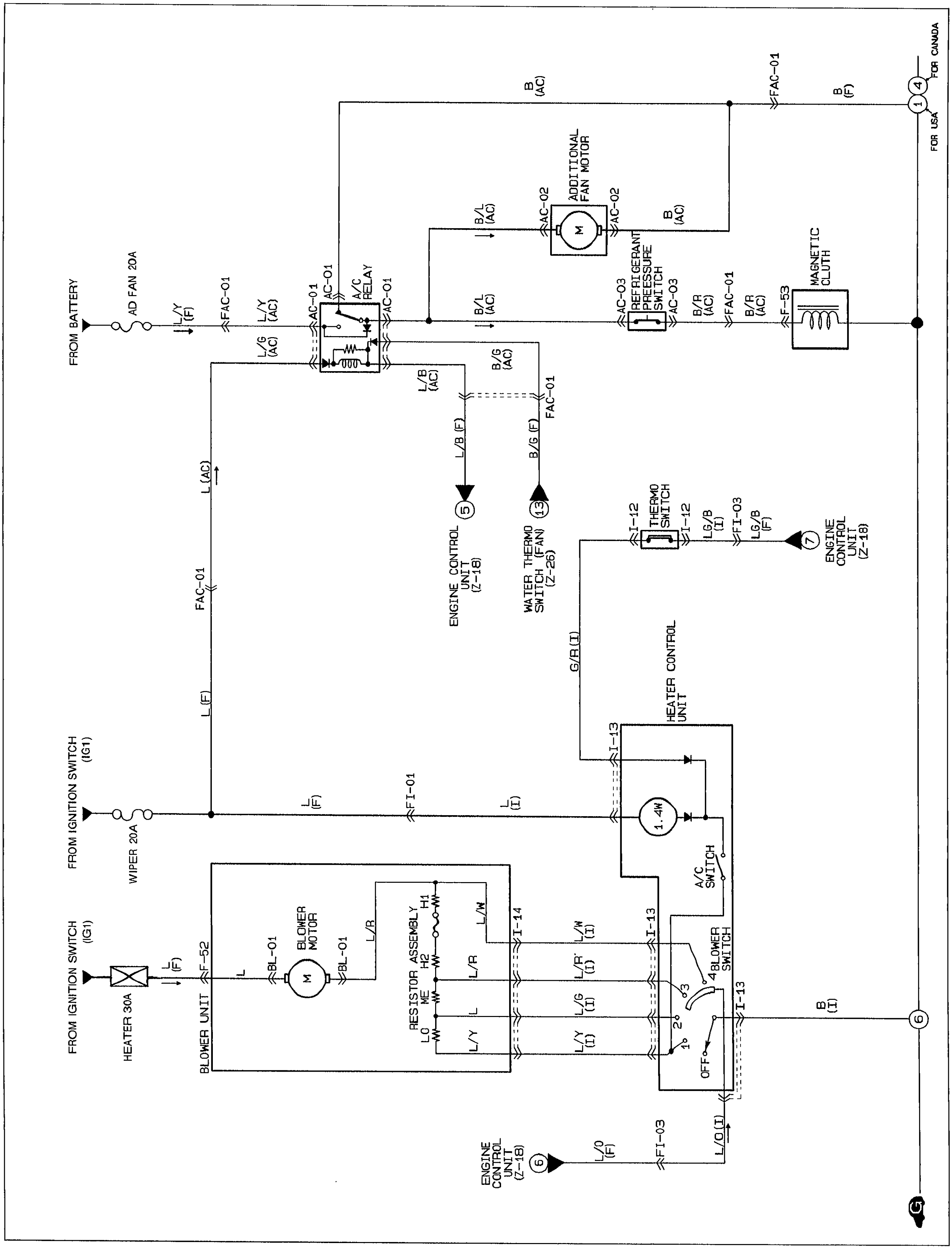
TROUBLESHOOTING GUIDE

CIRCUIT DIAGRAM


FROM BATTERY
AD FAN 20A
L/Y (F)
FAC-01
L/Y (AC)
AC-01
A/C RELAY
L/G (AC)
B (AC)
B/L (AC)
AC-02
ADDITIONAL FAN MOTOR
B (AC)
FAC-01
B (F)
1
4
FOR CANADA
FOR USA
REFRIGERANT PRESSURE SWITCH
AC-03
B/R (AC)
FAC-01
B/R (AC)
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L/B (AC)
B/G (AC)
FAC-01
L/B (F)
B/G (F)
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I-12
THERMO SWITCH
I-12
LG/B (I)
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LG/B (F)
7
ENGINE CONTROL UNIT (Z-18)
FAC-01
G/R (I)
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L (F)
I-13
FROM IGNITION SWITCH (IG1)
WIPER 20A
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FI-01
L (I)
1.4W
A/C SWITCH
FROM IGNITION SWITCH (IG1)
HEATER 30A
L (F)
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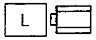
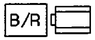
BL-01
BLOWER MOTOR
BL-01
L/R
RESISTOR ASSEMBLY
H1
H2
ME
LO
L/W
L/R
L
L/Y
I-14
L/W (I)
L/R (I)
L/G (I)
L/Y (I)
I-13
4
3
2
1
OFF
BLOWER SWITCH
I-13
B (I)
6
BLOWER UNIT
ENGINE CONTROL UNIT (Z-18)
6
L/O (F)
FI-03
L/O (I)
G

05U0UX-004

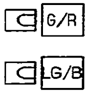
F-52 BLOWER UNIT (F)



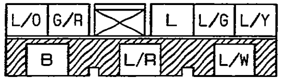
F-53 MAGNETIC CLUTCH (F)



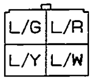
I-12 THERMOSWITCH (I)



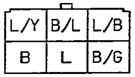
I-13 HEATER CONTROL UNIT (I)


L/O
G/R
L
L/G
L/Y
B
L/R
L/W

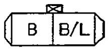
I-14 BLOWER UNIT (I)



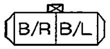
AC-01 A/C RELAY (AC)


L/Y
B/L
L/B
B
L
B/G

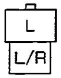
AC-02 ADDITIONAL FAN MOTOR (AC)



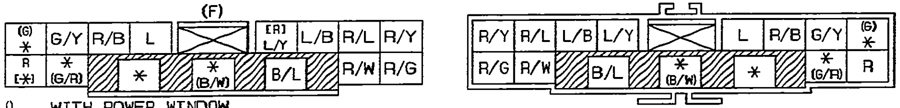
AC-03 REFRIGERANT PREESSURE SWITCH (AC)



BL-01 BLOWER MOTOR

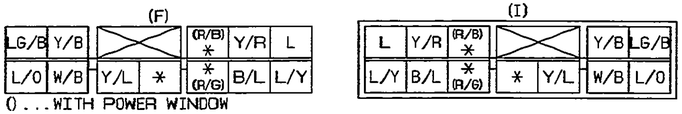


FI-01 FRONT (F) -INSTRUMENT PANEL (I)


(F)
(G)
*
G/Y
R/B
L
[R]
L/Y
L/B
R/L
R/Y
R
[*]
*
(G/R)
*
*
(B/W)
B/L
R/W
R/G
(I)
R/Y
R/L
L/B
L/Y
L
R/B
G/Y
(G)
*
R/G
R/W
B/L
*
(B/W)
*
*
(G/R)
R

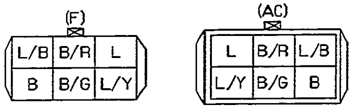
()...WITH POWER WINDOW
[]...FOR CANADA

FI-03 FRONT (F) -INSTRUMENT PANEL (I)


(F)
LG/B
Y/B
(R/B)
*
Y/R
L
L/O
W/B
Y/L
*
*
(R/G)
B/L
L/Y
(I)
L
Y/R
(R/B)
*
Y/B
LG/B
L/Y
B/L
*
(R/G)
*
Y/L
W/B
L/O

()...WITH POWER WINDOW

FAC-01 FRONT (F) -A/C (AC)

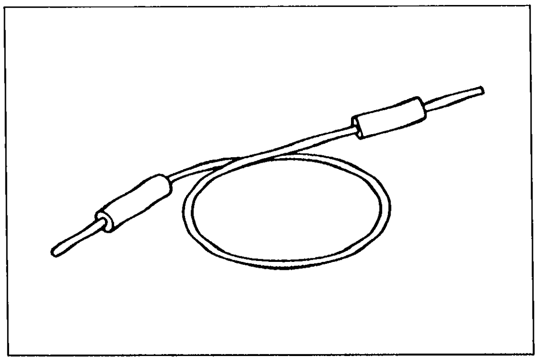

(F)
L/B
B/R
L
B
B/G
L/Y
(AC)
L
B/R
L/B
L/Y
B/G
B

Symptom	Reference page
Blower motor does not operate	U–7
Magnetic clutch does not operate	U–9
Additional (condenser) fan does not operate	U–11
Insufficient cooling No cooling Intermittent cooling	U–12

05U0UX-005

ELECTRICAL TROUBLESHOOTING TOOLS

Jumper Wire



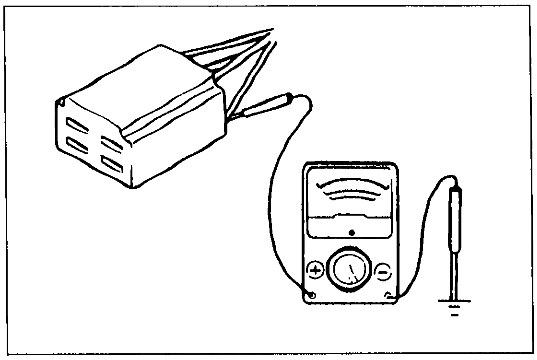
05U0UX-083

The jumper wire is used for testing by short-circuiting switch terminals and to verify the condition of ground connections.

Caution

- **Do not connect the jumper wire between a power source and a body ground. Doing so may cause burning or other damage to harnesses and electronic components.**

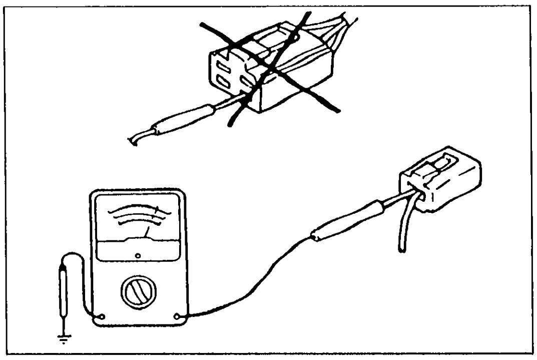
Voltmeter



9MU0UX-009

The DC voltmeter is used for measurement of circuit voltage. A voltmeter with a range of 15V or more must be used. It is used by connecting the positive (+) probe (red lead) to the point where voltage is to be measured and connecting the negative (–) probe (black lead) to a body ground.

Ohmmeter



9MU0UX-010

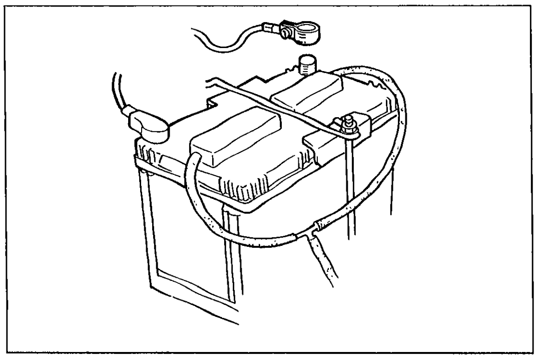
The ohmmeter is used to measure the resistance between two points in a circuit, to check for continuity, and to diagnose short circuits.

Caution

- **Never connect the ohmmeter to any circuit to which voltage is applied. Doing so may burn or otherwise damage the ohmmeter.**

GENERAL PRECAUTION

Before Disconnecting Battery Cables



05U0TX-009

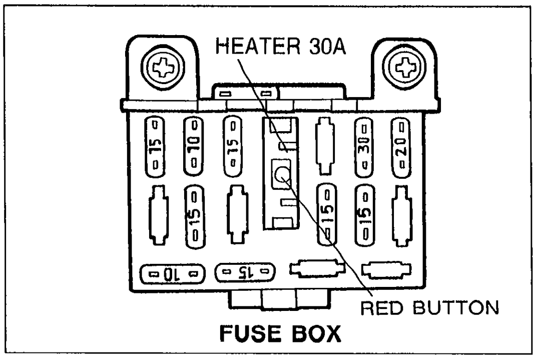
The optional audio unit has an anti-theft function that is activated when the battery power is disconnected. Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)

Symptom: Blower motor does not operate.

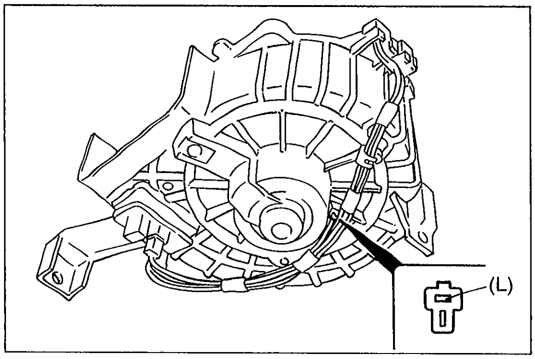
Normal operation of blower motor

Blower motor speed is controlled by the blower switch and a resistor assembly in the blower unit.
When the blower switch is in the OFF position, the motor ground circuit is open and the blower motor does not operate. When the switch is in the first (Low) position, current flow from the blower motor is restricted by the three resistors in the resistor assembly, and the blower motor turns at low speed.
Changing the blower switch to the second (Mid), third (High), or fourth (Super-high) position causes the circuit resistance to decrease, and the blower motor speed becomes correspondingly faster.

05U0UX-006



05U0UX-082



05U0UX-007

Step 1

1. Check the circuit breaker.

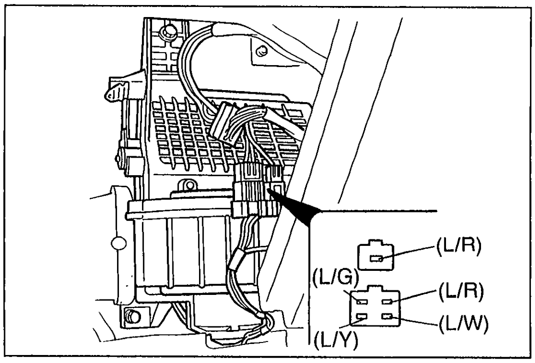
Circuit breaker	Amperage	Location
HEATER	30A	Fuse box

2. If the reset button is not out, go to Step 2.
3. If the reset button is out, check for a short circuit in the harness. Repair as necessary; then depress the reset button to reset the circuit breaker.

Step 2

1. Turn the ignition switch ON.
2. Turn the blower switch to the fourth position.
3. Measure the voltage at terminal-wire (L) of the blower motor connector.

Wire	Voltage	Action
(L)	12V	Go to Step 3
	0V	Repair wire harness (Circuit breaker—Blower motor)

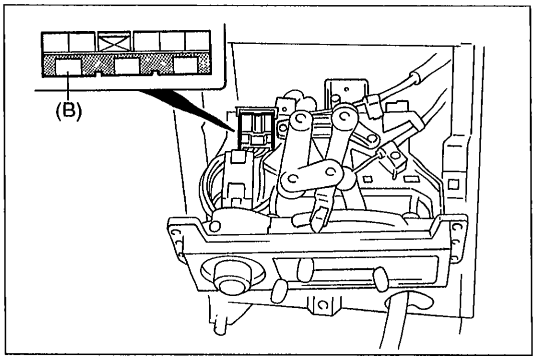


05U0UX-008

Step 3

1. Turn the ignition switch ON.
2. Turn the blower switch and A/C switch OFF.
3. Measure the voltage at the terminal-wires of the resistor assembly.

Wire	Voltage	Action
(L/R) (1-pin connector)	12V	Next, check wire (L/W)
	0V	Replace blower motor
(L/W)	12V	Next, check wire (L/R)
	0V	Replace resistor assembly
(L/R) (4-pin connector)	12V	Next, check wire (L/G)
	0V	Replace resistor assembly
(L/G)	12V	Next, check wire (L/Y)
	0V	Replace resistor assembly
(L/Y)	12V	Go to Step 4
	0V	Replace resistor assembly

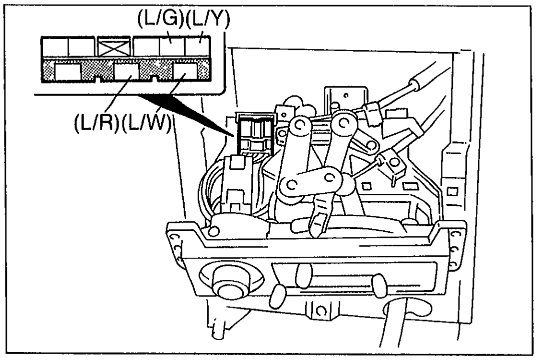


05U0UX-009

Step 4

1. Turn the ignition switch ON.
2. Turn the blower switch to the fourth position.
3. Measure the voltage at terminal-wire (B) of the blower switch connector.

Wire	Voltage	Action
(B)	0V	Go to Step 5
	12V	Repair wire harness (Blower switch—Body ground)



05U0UX-010

Step 5

1. Turn the ignition switch ON.
2. Turn the blower switch and A/C switch OFF.
3. Measure the voltage at the terminal-wires of the blower switch connector.

Wire	Voltage	Action
(L/W)	0V	Repair wire harness (Resistor assembly—Blower switch)
	12V	Next, check wire (L/R)
(L/R)	0V	Repair wire harness (Resistor assembly—Blower switch)
	12V	Next, check wire (L/G)
(L/G)	0V	Repair wire harness (Resistor assembly—Blower switch)
	12V	Next, check wire (L/Y)
(L/Y)	0V	Repair wire harness (Resistor assembly—Blower switch)
	12V	Replace blower switch

Symptom: Magnetic clutch does not operate.

Note

- **If the blower motor also does not operate, see "Blower motor does not operate"; page U–7.**

Normal operation of magnetic clutch

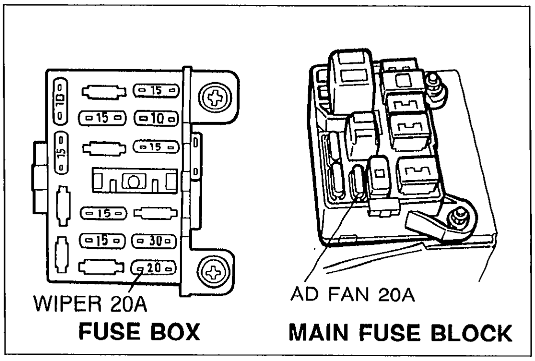
The magnetic clutch is supplied with battery voltage as shown:

1. A/C and blower switches are turned ON.
2. ECU receives signal that A/C and blower switches are ON and creates ground circuit.
3. A/C relay is magnetized and contact is closed.
4. Battery voltage is applied to magnetic clutch and clutch locks.

Note

- **The ECU also controls the additional fan and magnetic clutch operation depending on engine load. (Refer to Section F.)**

05U0UX-011



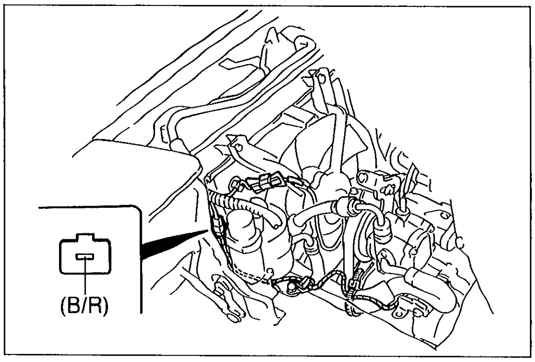
05U0UX-084

Step 1

1. Check the following fuses.

Fuse	Amperage	Location
WIPER	20A	In fuse box
AD FAN	20A	In main fuse block

2. If the fuses are OK, go to Step 2.
3. If a fuse is burned, check for a short circuit in the harness before replacing it.

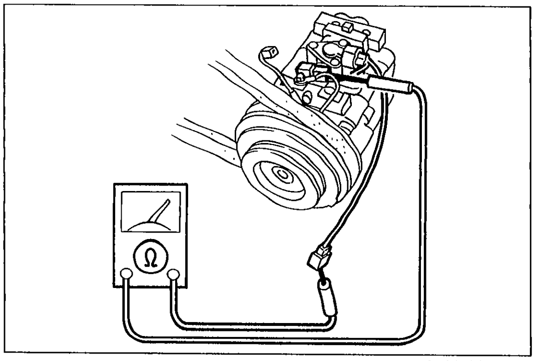


05U0UX-012

Step 2

1. Run the engine at idle.
2. Turn the A/C switch and blower switch ON.
3. Measure the voltage at terminal-wire (B/R) of the magnetic clutch connector.

Wire	Voltage	Action
(B/R)	12V	Go to Step 3
	0V.	Go to Step 5

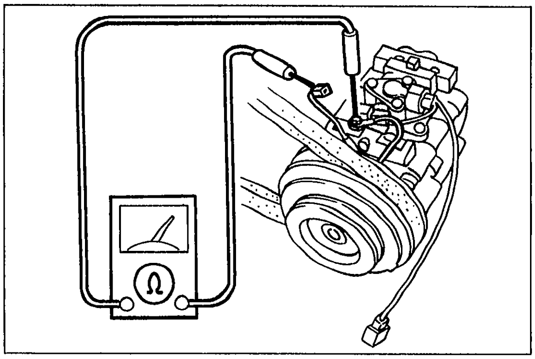


05U0UX-013

Step 3

1. Disconnect the thermoswitch connector.
2. Check for continuity of the thermoswitch.

Continuity	Action
Yes	Go to Step 4
No	Replace thermoswitch



05U0UX-014

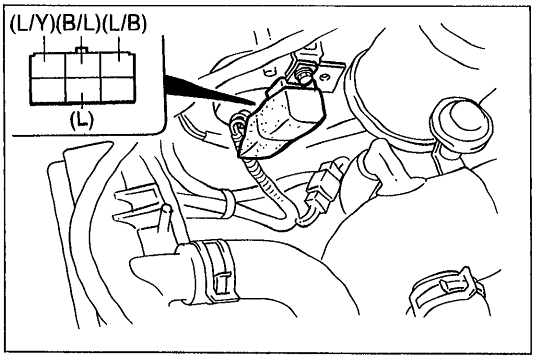
Step 4

1. Disconnect the magnetic clutch connector.
2. Check for continuity between the magnetic clutch connector and a body ground.

Note

- **Set the ohmmeter to x1,000 range.**

3. If there is no continuity, replace the magnetic clutch.
4. If there is continuity, adjust the magnetic clutch clearance or check the compressor for internal trouble.

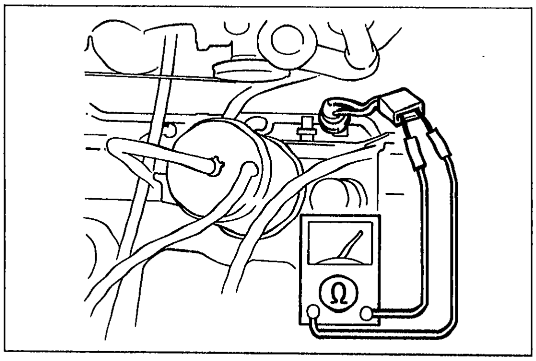


05U0UX-015

Step 5

1. Start the engine.
2. Turn the blower and A/C switches ON.
3. Measure the voltage at the following terminal-wires of the A/C relay connector.

Wire	Voltage	Action
(B/L)	12V	Go to Step 6
	0V	Next, check wire (L/Y)
(L/Y)	12V	Next, check wire (L/G)
	0V	Repair wire (L/G) (AD FAN 20A fuse—A/C relay)
(L)	12V	Next, check wire (L/B)
	0V	Repair wire (L/G) (WIPER 20A fuse—A/C relay)
(L/B)	12V	Check ECU terminal voltage
	0V	Replace A/C relay

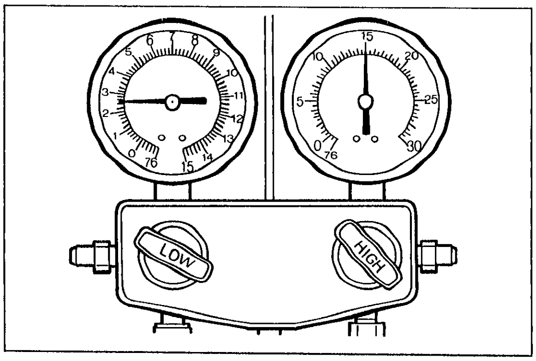


05U0UX-016

Step 6

1. Disconnect the refrigerant pressure switch connector.
2. Check continuity of the refrigerant pressure switch.

Continuity	Action
Yes	Repair wiring harness (A/C relay—Refrigerant pressure switch—Magnetic clutch)
No	Go to Step 7



05U0UX-017

Step 7

1. Measure the refrigerant pressure. (Refer to page U–31.)

Normal pressure

Low-pressure side:

147—294 kPa (1.5—3.0 kg/cm^2, 21—43 psi)

High-pressure side:

1,177—1,619 kPa (12.0—16.5 kg/cm^2, 171—235 psi)

2. If not as specified, check the refrigerant system by referring to the troubleshooting information on page U–12.
3. If correct, replace the refrigerant pressure switch.

Symptom: Additional (condenser) fan does not operate.

Note

- **If the magnetic clutch also does not operate, see "Magnetic clutch does not operate"; page U–9.**

Normal operation of additional fan

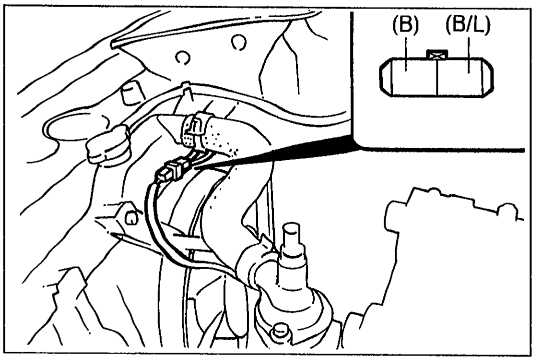
The additional fan is supplied with battery voltage as shown:

1. A/C and blower switches are turned ON.
2. ECU receives signal that A/C and blower switches are ON and creates ground circuit.
3. A/C relay is magnetized and contact is closed.
4. Battery voltage is applied to additional fan and fan operates.

Note

- **The ECU also controls the additional fan and magnetic clutch operation depending on engine load. (Refer to Section F.)**

05U0UX-018



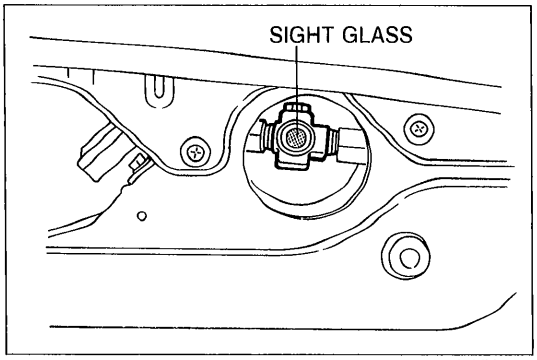
05U0UX-019

Remedy

1. Measure the voltage at the terminal-wire(s) of the additional fan.

Wire	Voltage	Action
(B/L)	12V	Next, check wire (B)
	0V	Repair wire (B/L) (A/C relay—Additional fan)
(B)	12V	Repair wire (B) (Additional fan—Body ground)
	0V	Replace additional fan

Symptom: Insufficient cooling.
No cooling.
Intermittent cooling.



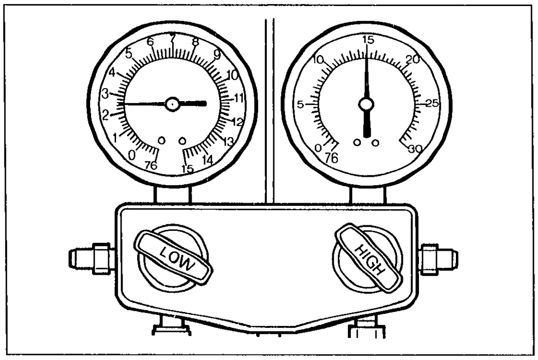
05U0UX-020

Step 1 Checking refrigerant charge

1. Run the engine at a fast idle.
2. Operate the air conditioner at maximum cooling for a few minutes.
3. Observe the sight glass to determine the amount of refrigerant and the related action as shown below.

Item	Symptom	Amount of refrigerant	Action
1	Bubbles present in sight glass	Insufficient refrigerant	Check refrigerant pressure, go to Step 2
2	No bubbles present in sight glass	Too much or proper amount of refrigerant	Turn air conditioner OFF, and watch bubbles (Refer to Items 3 and 4)
3	Immediately after air conditioner turned off, refrigerant in sight glass stays clear	Too much refrigerant	Check refrigerant pressure, go to Step 2
4	When air conditioner turned OFF, refrigerant foams, and then sight glass becomes clear	Proper amount of refrigerant	Refrigerant amount normal

9MU0UX-073



05U0UX-021

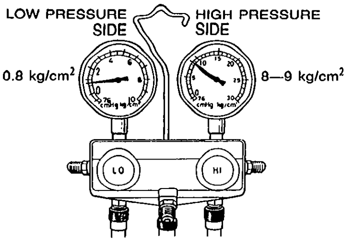
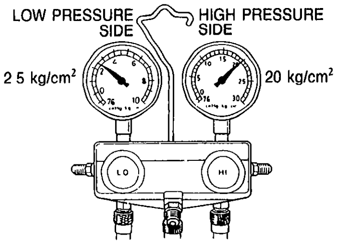
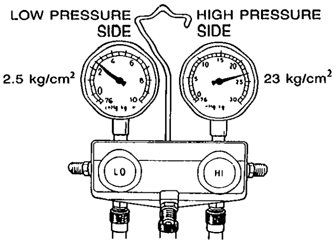
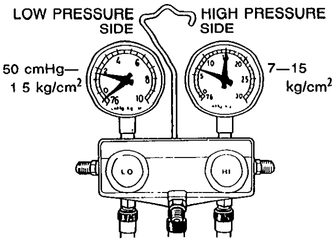
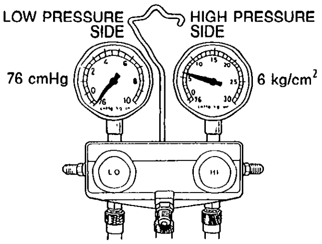
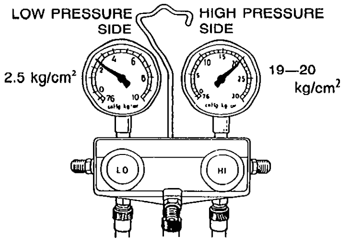
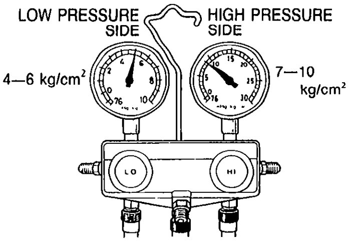
Step 2 Checking refrigerant pressure

1. Connect the A/C manifold gauge set.
2. Operate the engine at 2,000 rpm and set the air conditioner to maximum cooling.
3. Measure the refrigerant pressure.

Normal pressure

Low-pressure side:
147—294 kPa (1.5—3.0 kg/cm^2, 21—43 psi)
High-pressure side:
1,177—1,619 kPa (12.0—16.5 kg/cm^2, 171—235 psi)

4. If the pressures are not as specified, refer to the chart on the next page and check the system.

Measured pressure		Possible cause	Action
 LOW PRESSURE SIDE HIGH PRESSURE SIDE 0.8 kg/cm² 8—9 kg/cm² LO HI	Low side: Below 78.5 kPa (0.8 kg/cm^2, 11.4 psi) High side: 785—883 kPa (8—9 kg/cm^2, 114—128 psi)	Insufficient refrigerant	Case 1 (Refer to page U–14)
 LOW PRESSURE SIDE HIGH PRESSURE SIDE 2.5 kg/cm² 20 kg/cm² LO HI	Low side: Above 245 kPa (2.5 kg/cm^2, 35.6 psi) High side: Above 1,962 kPa (20 kg/cm^2, 284 psi)	Excessive refrigerant or insufficient condenser cooling	Case 2 (Refer to page U–15)
 LOW PRESSURE SIDE HIGH PRESSURE SIDE 2.5 kg/cm² 23 kg/cm² LO HI	Low side: Above 245 kPa (2.5 kg/cm^2, 35.6 psi) High side: Above 2,256 kPa (23 kg/cm^2, 327 psi)	Air in system	Case 3 (Refer to page U–15)
 LOW PRESSURE SIDE HIGH PRESSURE SIDE 50 cmHg— 1.5 kg/cm² 7—15 kg/cm² LO HI	Low side: 50 cmHg (2.0 inHg) of Vacuum—147 kPa (1.5 kg/cm^2, 21.3 psi) High side: 687—1,472 kPa (7—15 kg/cm^2, 100—213 psi)	Moisture in system	Case 4 (Refer to page U–16)
 LOW PRESSURE SIDE HIGH PRESSURE SIDE 76 cmHg 6 kg/cm² LO HI	Low side: 76 cmHg (3.0 inHg) of Vacuum High side: Below 589 kPa (6 kg/cm^2, 85 psi)	No refrigerant circulation	Case 5 (Refer to page U–16)
 LOW PRESSURE SIDE HIGH PRESSURE SIDE 2.5 kg/cm² 19—20 kg/cm² LO HI	Low side: Above 245 kPa (2.5 kg/cm^2, 35.6 psi) High side: 1,864—1,962 kPa (19—20 kg/cm^2, 270—284 psi)	Expansion valve stuck open	Case 6 (Refer to page U–17)
 LOW PRESSURE SIDE HIGH PRESSURE SIDE 4—6 kg/cm² 7—10 kg/cm² LO HI	Low side: 392—589 kPa (4—6 kg/cm^2, 57—85 psi) High side: 687—981 kPa (7—10 kg/cm^2, 100—142 psi)	Faulty compressor	Case 7 (Refer to page U–17)

Case 1: Insufficient refrigerant

Measured pressure

Low-pressure side: Less than 78.5 kPa (0.8 kg/cm^2, 11.4 psi)

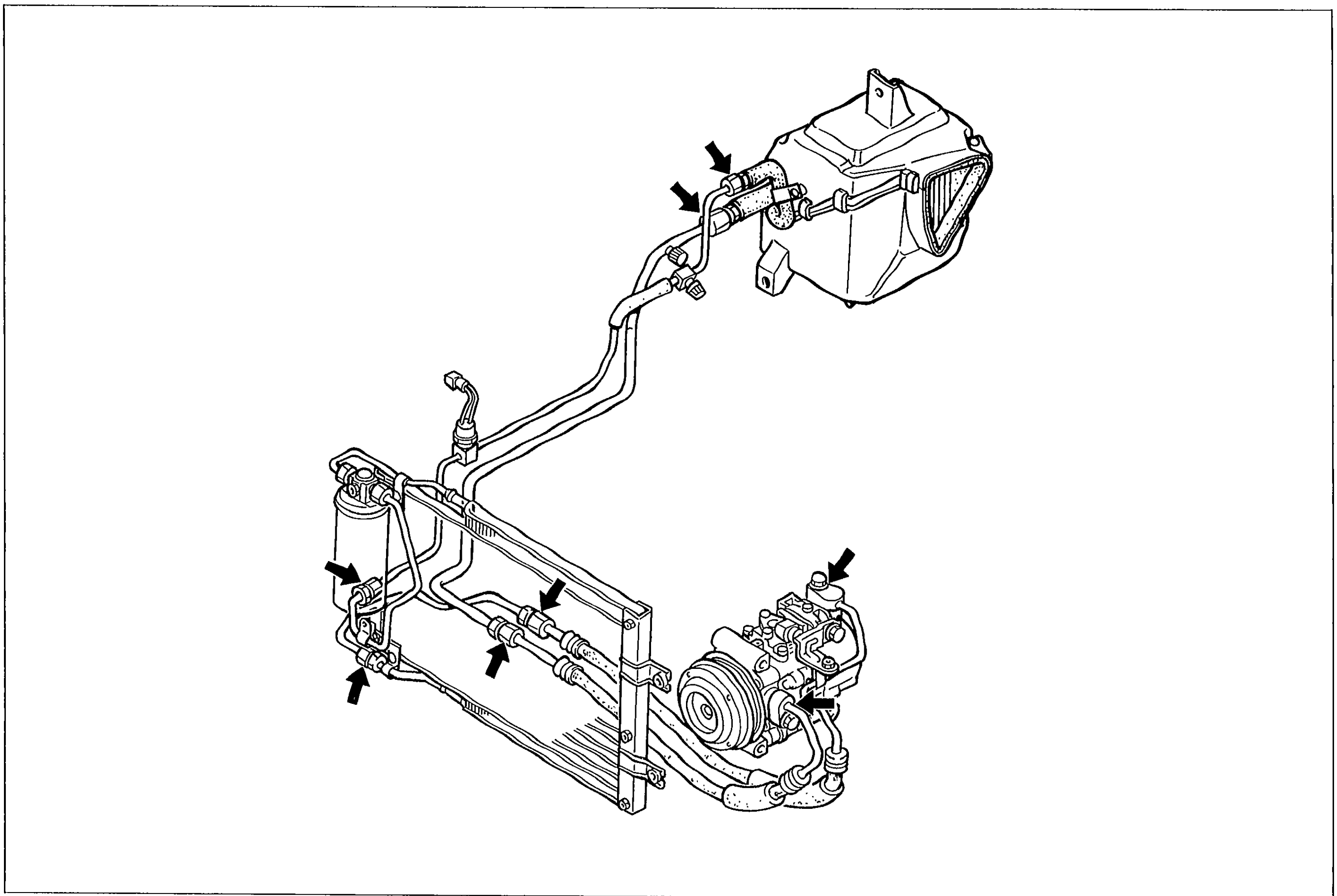
High-pressure side: 785—883 kPa (8—9 kg/cm^2, 114—128 psi)

Condition

- **Outlet air from vents not cold.**
- **Bubbles seen in sight glass.**

Step 1

1. Check for oil stains on the pipes, hoses and other parts. (Refer to illustration below.)
2. If oil staining is found at the connection of pipes or hoses, replace the O-ring; then, evacuate, charge, and test the system.
3. If oil staining is not found, go to Step 2.



05U0UX-023

Step 2

1. Check for leakage from the following connections with a gas leak tester.
   - Inlet and outlet of condenser.
   - Inlet and outlet of receiver/drier.
   - Inlet and outlet of compressor.
   - Sight glass.
   - Inlet and outlet of cooling unit.
2. If leakage is evident, go to Step 3.
3. If leakage cannot be found, evacuate, charge, and test the system. (System OK, but refrigerant leaked gradually over time.)

Step 3

1. Check tightening torque of the connection where leak was detected.
2. If the connection is loose, tighten the connection to the specified torque; then evacuate, charge, and test the system.
3. If the connection is properly tightened, replace the O-ring; then evacuate, charge, and test the system.

Case 2: Excessive refrigerant or insufficient condenser cooling

Measured pressure

Low-pressure side: Above 245 kPa (2.5 kg/cm^2, 35.6 psi)
High-pressure side: Above 1,962 kPa (20 kg/cm^2, 284 psi)

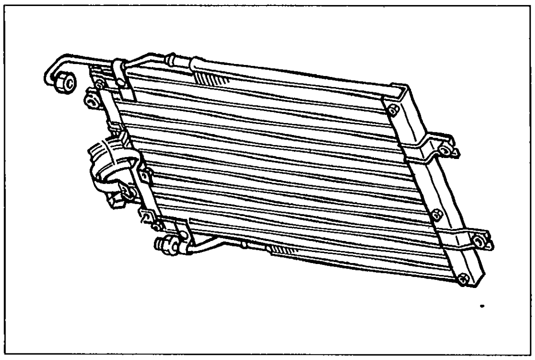
Condition

Insufficient cooling

Note

- **If the condenser fan does not operate when the air conditioner is operating, see "Additional (condenser) fan does not operate"; page U–11, before proceeding.**

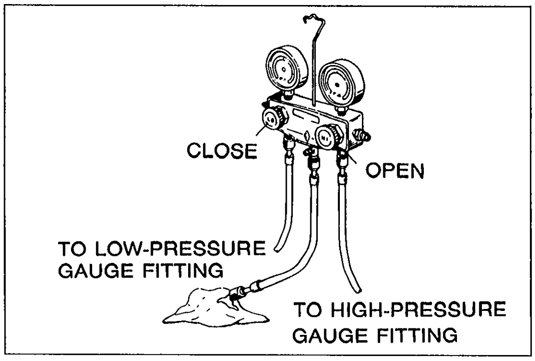
05U0UX-024



9MU0UX-084

Step 1

1. Check the condenser for bent fins or damage. Repair or replace if necessary.
2. If the condenser is OK, go to Step 2.



05U0UX-025

Step 2

1. Discharge the excessive refrigerant. (Refer to page U–28.)

   Warning
   - **Always wear gloves and eye protection when discharging the refrigerant.**

2. Verify that the refrigerant pressure is normal.

Case 3: Air in system

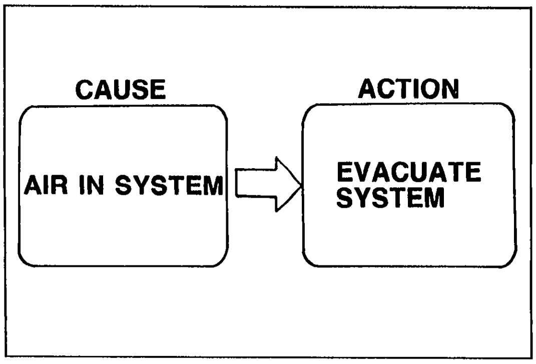
Measured pressure

Low-pressure side: Above 245 kPa (2.5 kg/cm^2, 35.6 psi)
High-pressure side: Above 2,256 kPa (23 kg/cm^2, 327 psi)

Condition

Insufficient cooling

05U0UX-085



05U0UX-026

Step 1
Discharge the refrigeration system. (Refer to page U–28.)
Step 2
Evacuate the system to remove all air from it. (Refer to page U–29.)
Step 3
Charge the system with refrigerant. (Refer to page U–29.)
Step 4
After charging, measure the refrigerant pressure. (Refer to page U–31.)
Step 5
If low- and high-pressure sides are still too high, replace the receiver/drier.

Case 4: Moisture in system

Measured pressure

Low-pressure side: 50 cmHg (2.0 inHg): [Vacuum]

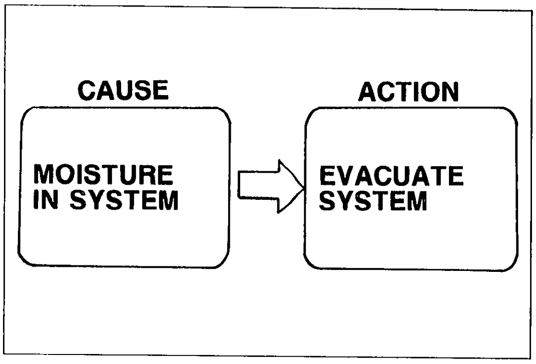
High-pressure side: 687—1,472 kPa (7—15 kg/cm^2, 100—213 psi)

Condition

Intermittent cooling

(Moisture in refrigeration system freezes in expansion valve and causes temporary blocking. After time, ice melts and condition returns to normal.)

05U0UX-086



05U0UX-027

Step 1

Discharge the refrigeration system. (Refer to page U–28.)

Step 2

Evacuate the system to remove all air and moisture from it. (Refer to page U–29.)

Step 3

Charge the system with refrigerant. (Refer to page U–28.)

Step 4

After charging, measure the refrigerant pressure. (Refer to page U–31.)

Step 5

If low- and high-pressure sides are still too high, replace the receiver/drier.

Case 5: No refrigerant circulation

Measured pressure

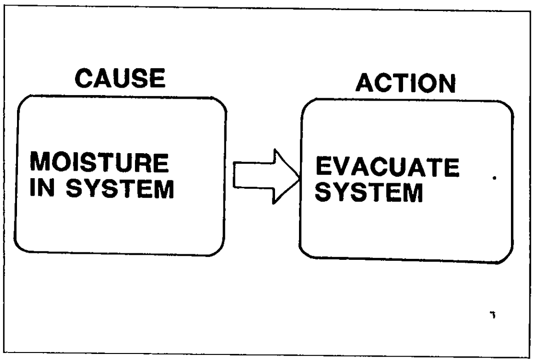
Low-pressure side: 76 cmHg (3.0 inHg) [Vacuum]

High-pressure side: Below 589 kPa (6 kg/cm^2, 85 psi)

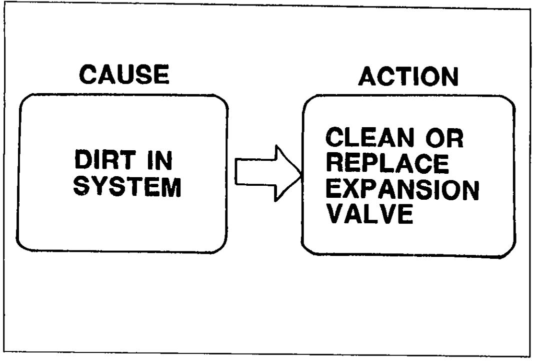
Condition

Refrigerant flow obstructed by moisture or dirt, causing freezing or blockage of expansion valve

05U0UX-087



05U0UX-028



05U0UX-029

Step 1

Turn the air conditioner OFF for about 10 minutes. Turn the air conditioner ON to determine whether the blockage is due to moisture or dirt.

a) If caused by moisture
   System will operate normally after being OFF for 10 minutes. (Ice melts and relieves blockage.)
   Refer to "Moisture in system".

b) If caused by dirt
   System remains abnormal after being OFF 10 minutes. Go to Step 2.

Step 2

1. Remove the expansion valve. (Refer to page U–33.)
2. Blow out the dirt with compressed air.
3. If unable to remove the dirt, replace the expansion valve.
4. Evacuate, charge, and test the system.

Case 6: Expansion valve stuck open

Measured pressure

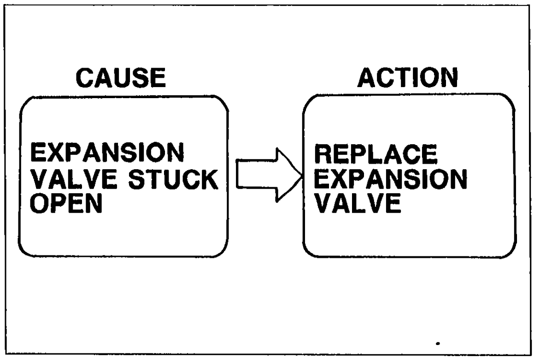
Low-pressure side: Above 245 kPa (2.5 kg/cm^2, 35.6 psi)

High-pressure side: 1,864—1,962 kPa (19—20 kg/cm^2, 270—284 psi)

Condition

Insufficient cooling

05U0UX-088


CAUSE
ACTION
EXPANSION VALVE STUCK OPEN
REPLACE EXPANSION VALVE

05U0UX-030

1. Check whether there is frost or heavy dew on the suction pipe (between cooling unit and compressor).
2. If neither is found, refer to "Excessive refrigerant or insufficient condenser cooling"; page U–15.
3. If either is found, replace the expansion valve. (Refer to page U–33.)

Case 7: Faulty compressor

Measured pressure

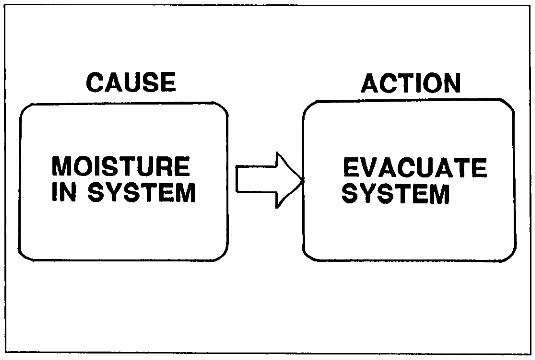
Low-pressure side: 392—589 kPa (4—6 kg/cm^2, 57—85 psi)

High-pressure side: 687—981 kPa (7—10 kg/cm^2, 100—142 psi)

Condition

No cooling

05U0UX-089

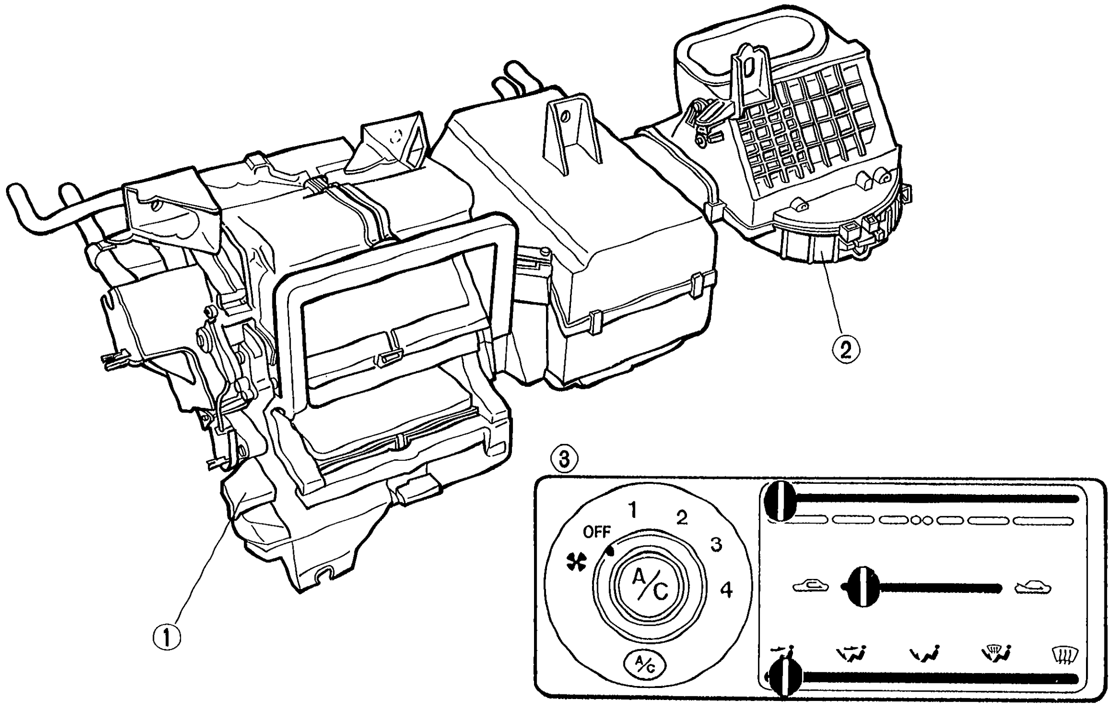

CAUSE
ACTION
MOISTURE IN SYSTEM
EVACUATE SYSTEM

05U0UX-031

1. Run the engine at a first idle.
2. Verify that the magnetic clutch is ON when the A/C switch and blower switch are ON.
3. If the magnetic clutch remains OFF, refer to "Magnetic clutch does not operate"; page U–9.

HEATER

STRUCTURAL VIEW



05U0UX-032

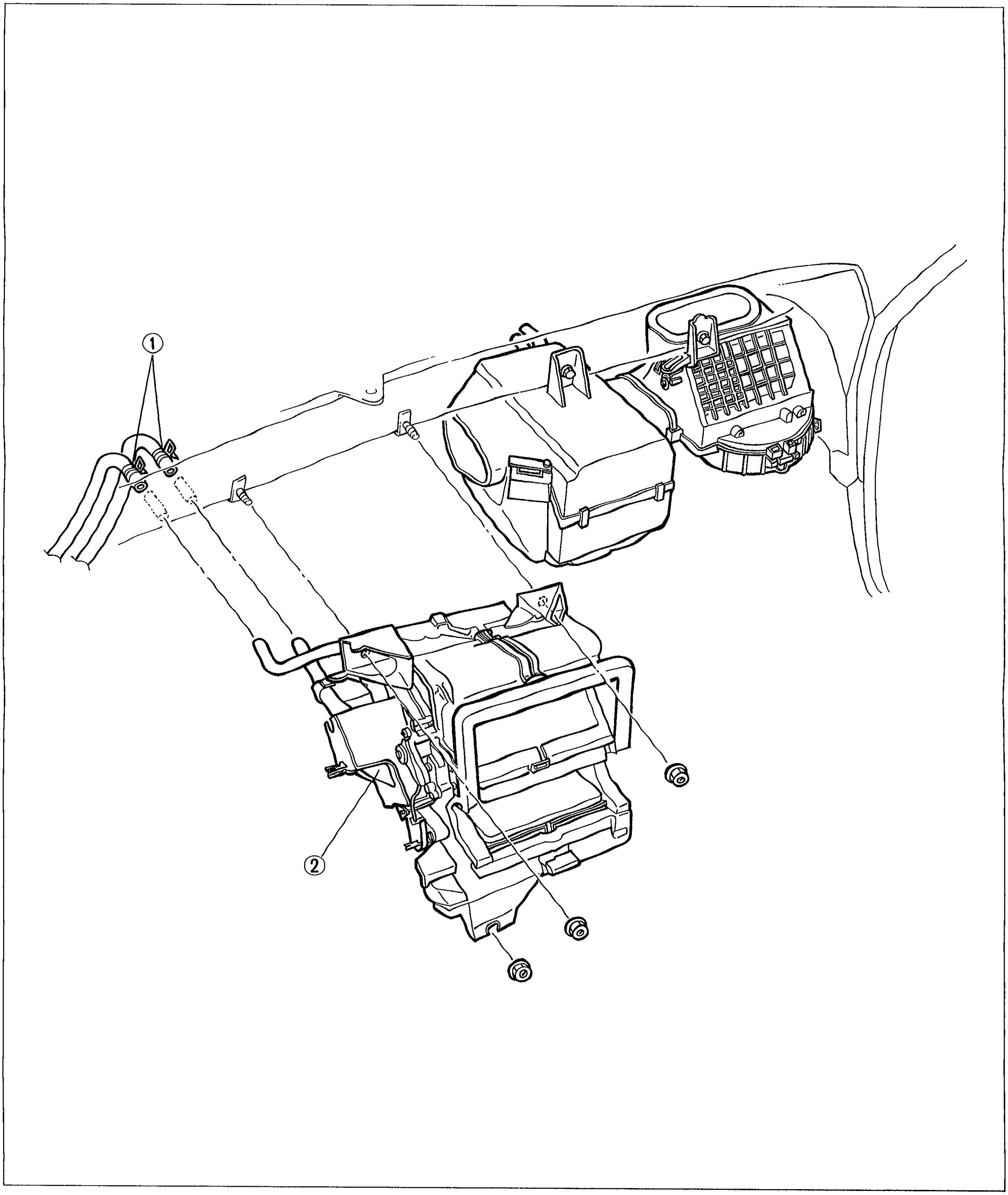
1. Heater unit
    Removal / Installation.................. page U–19
    Disassembly / Assembly............. page U–20
   Heater core
    Inspection.................................. page U–20
2. Blower unit
    Removal / Installation.................. page U–21
    Disassembly / Assembly............. page U–22
   Blower motor
    Inspection.................................. page U–22
   Resistor assembly
    Inspection.................................. page U–22
3. Heater control switch assembly
    Removal / Installation.................. page U–23
    Disassembly / Assembly............. page U–24
    Inspection.................................. page U–25
    Adjustment................................ page U–25

Note
- **Refer to Section E for engine coolant flow.**

HEATER UNIT

Removal / Installation

1. Remove the dashpanel. (Refer to Section S.)
2. Remove the heater unit as shown in the figure.
3. Install the heater unit in the reverse order of removal.
4. Install the dashpanel.

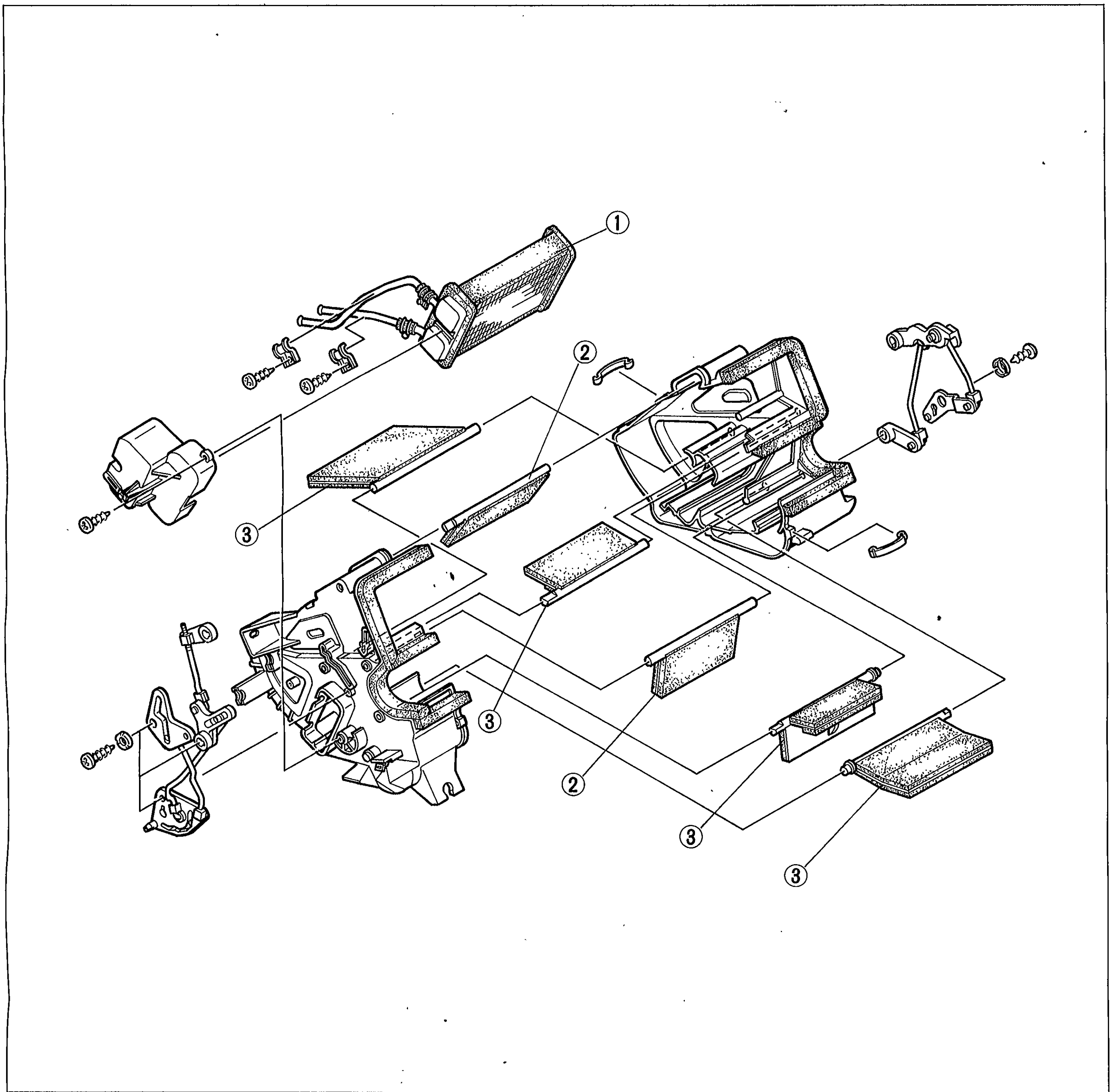


05U0UX-033

1. Heater hose
2. Heater unit

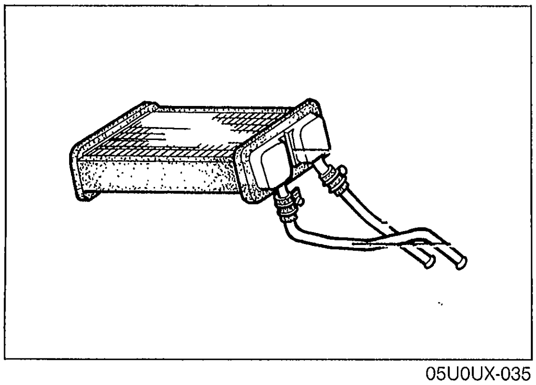
Disassembly / Assembly

Disassemble and assemble as shown in the figure.



05U0UX-034

1. Heater core
2. Temperature blend door
3. Airflow mode door



05U0UX-035

Inspection

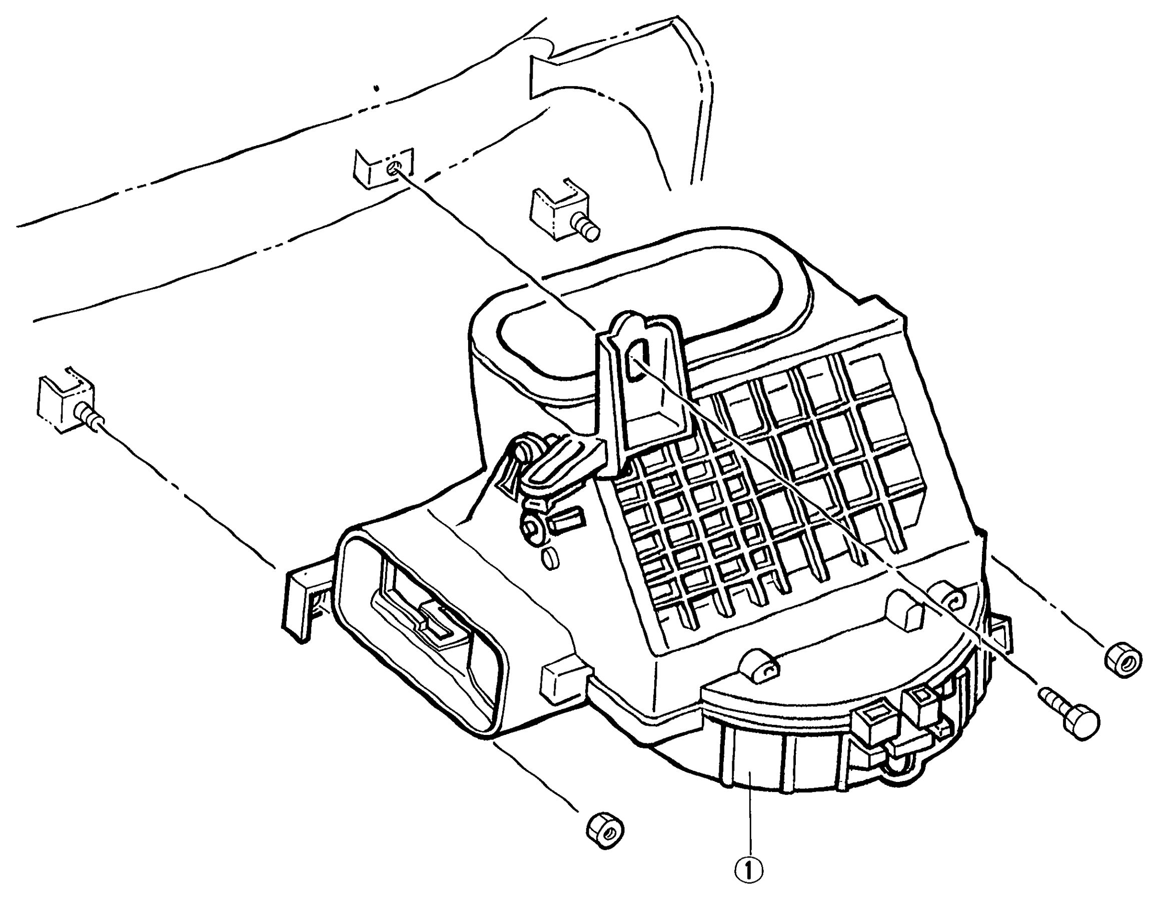
Heater core

1. Check the heater core fins for blockage.
2. If the fins are clogged, clean them.
3. Check the fittings for cracks or other damage. Replace the heater core if necessary.

BLOWER UNIT

Removal / Installation

1. Remove the glove box.
2. Remove the blower unit as shown in the figure.
3. Install the blower unit in the reverse order of removal.
4. Install the glove box.

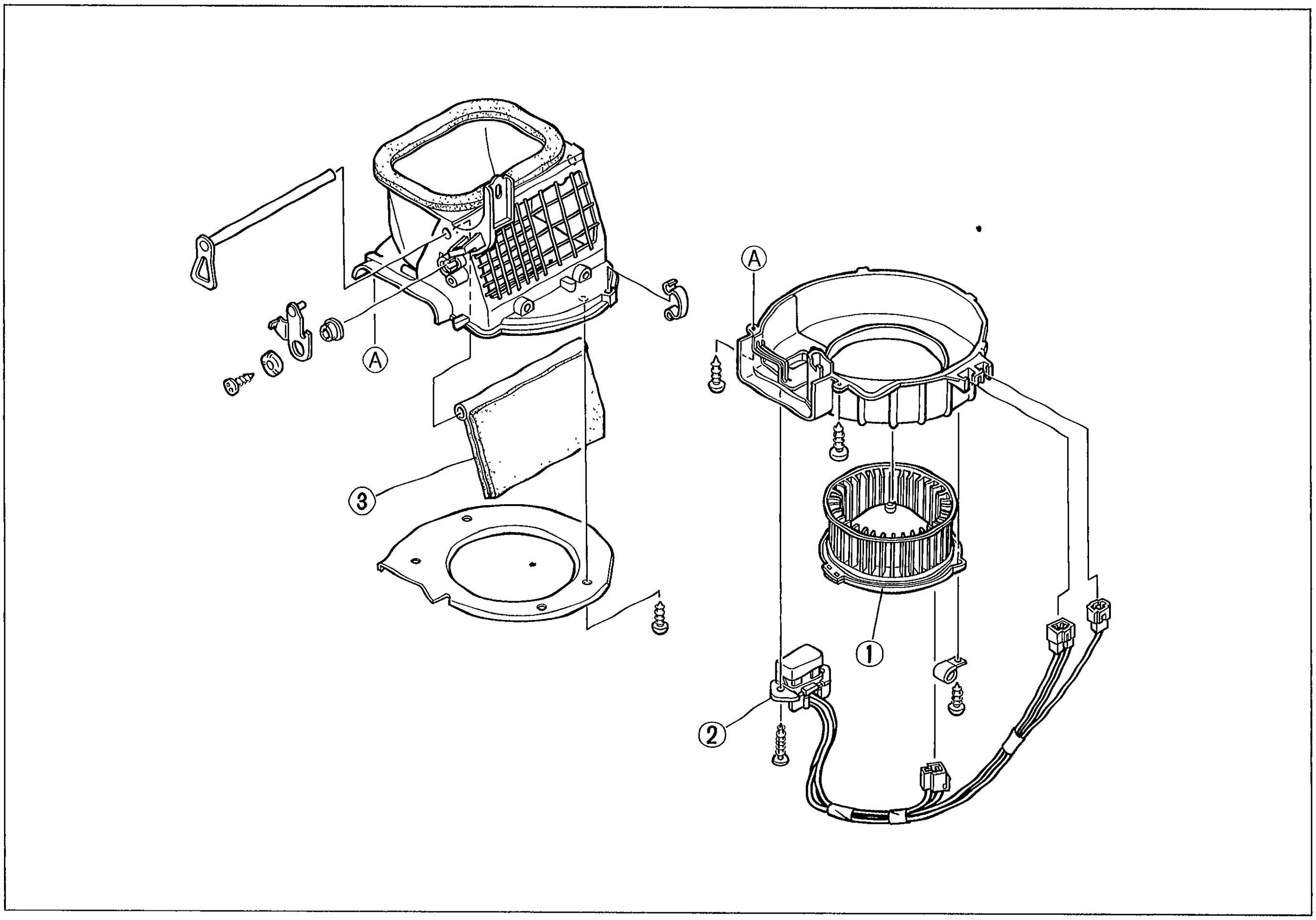


05U0UX-036

1. Blower unit

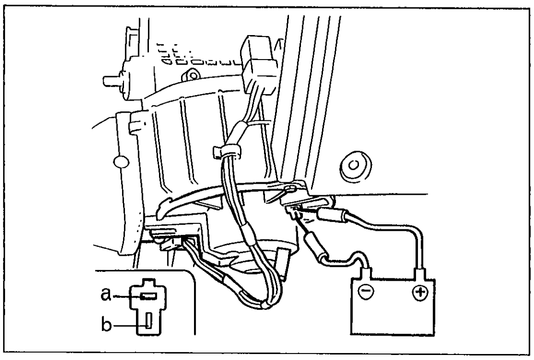
Disassembly / Assembly

Disassemble and assemble as shown in the figure.

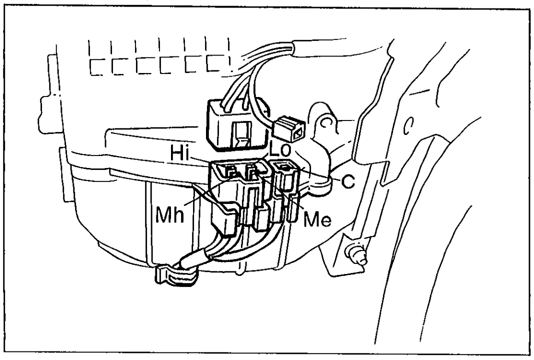


05U0UX-037

1. Blower motor
2. Resistor assembly
3. REC-FRESH door



05U0UX-038



05U0UX-039

Inspection

Blower motor

1. Verify that the blower motor runs when connecting 12V to terminal a and grounding terminal b.
2. If the blower motor does not run, replace it.

Resistor assembly

1. Check for continuity between terminals of the resistor assembly.

Terminals	Continuity
C—Lo	Yes
C—Me	Yes
C—Mh	Yes
C—Hi	Yes

Note

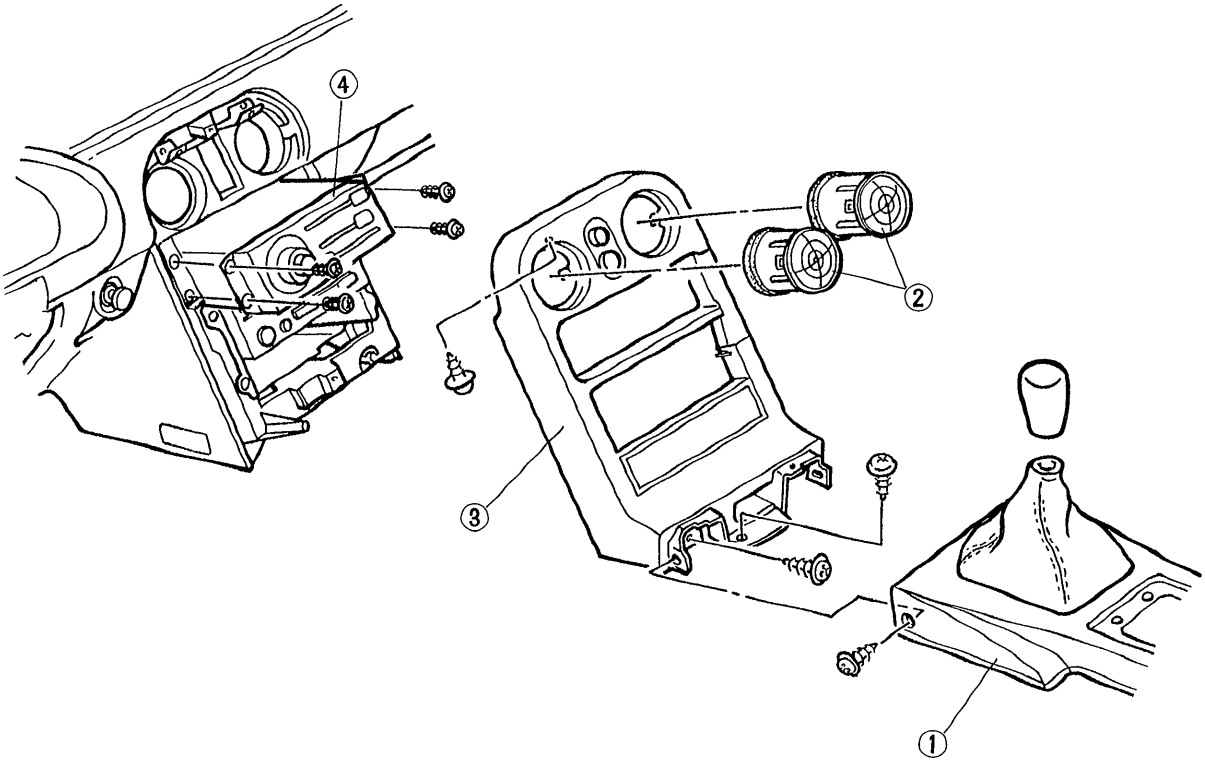
- **Set the ohmmeter to the x1,000 range.**

2. If not as specified, replace the resistor assembly.

HEATER CONTROL SWITCH ASSEMBLY

Removal / Installation

Remove and install as shown in the figure.



05U0UX-040

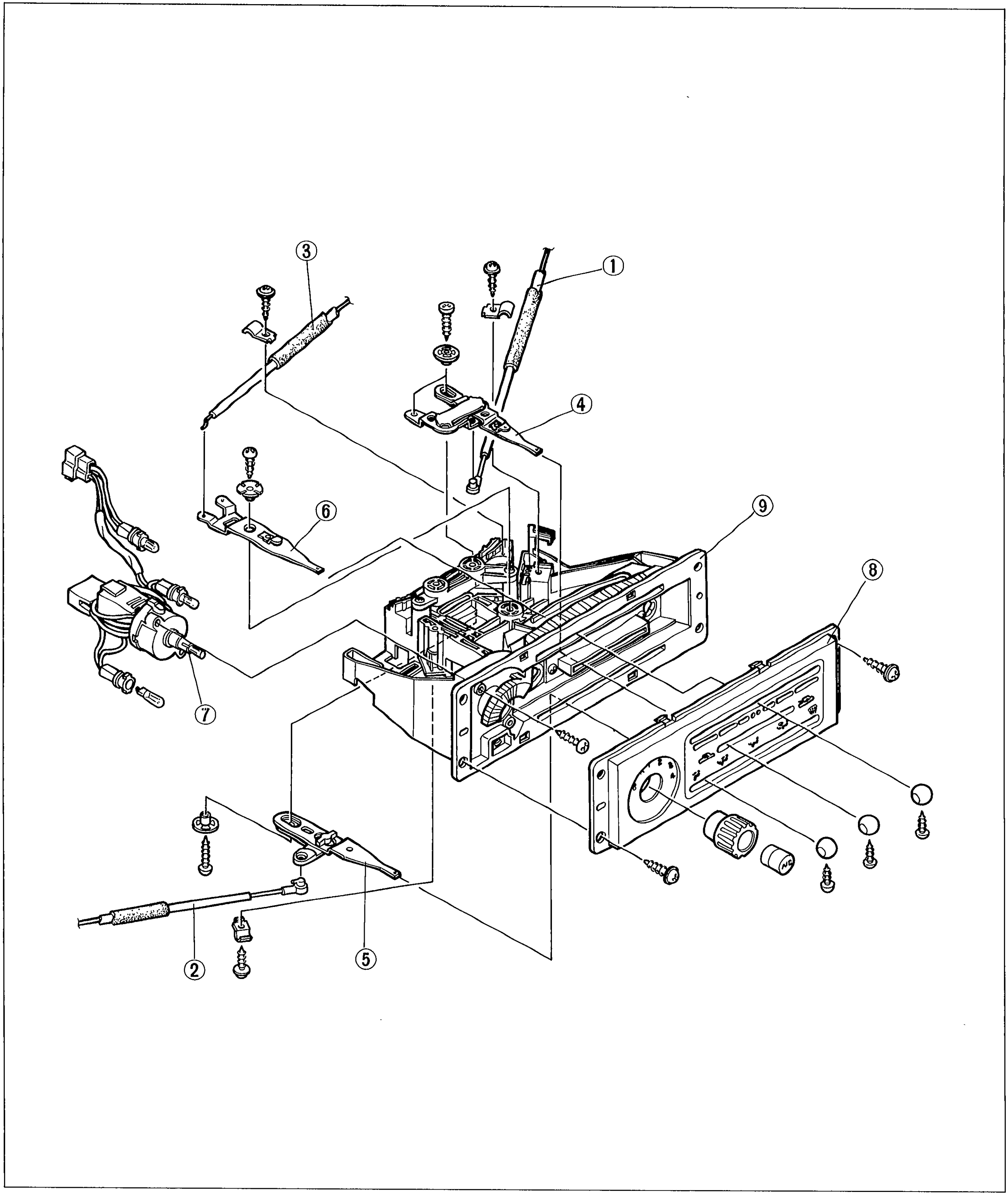
1. Center console
2. Vent outlet
3. Switch panel
4. Rec-Fresh wire

Installation note

- **When installing the heater control switch assembly adjust the airflow mode, temperature blend, and Rec-Fresh wires. (Refer to page U–25.)**

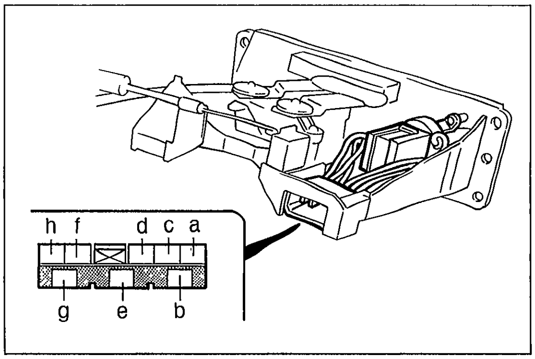
Disassembly / Assembly

Disassemble and assemble as shown in the figure.



05U0UX-041

1. Rec-Fresh wire
2. Airflow mode wire
3. Temperature blend wire
4. Rec-Fresh lever
5. Airflow mode lever
6. Temperature blend lever
7. Blower and A/C switch
8. Panel
9. Switch body



05U0UX-042

Inspection

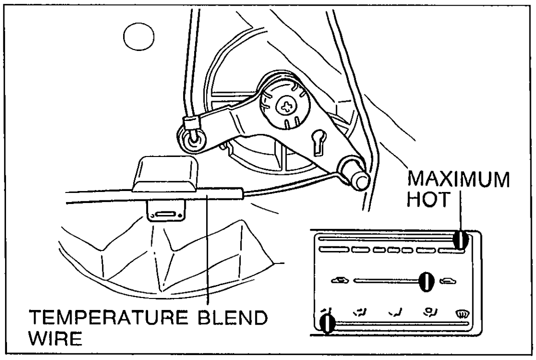
Blower and A/C switch

1. Check continuity between terminals of the switch.

Position		a	b	c	d	e	f	g	h
Blower switch	OFF								
	First	○	—	—	—	—	—	○	
	Second			○	—	—	—	○	○
	Third					○	—	○	○
	Fourth		○	—	—	—	—	○	○
A/C switch	OFF								
	ON	○	—	◀	○				
		○	—	—	◀	—	○		

○—○ : Indicates continuity
○—◀—○ : Indicates diode

2. If not as specified, replace the switch.



05U0UX-043

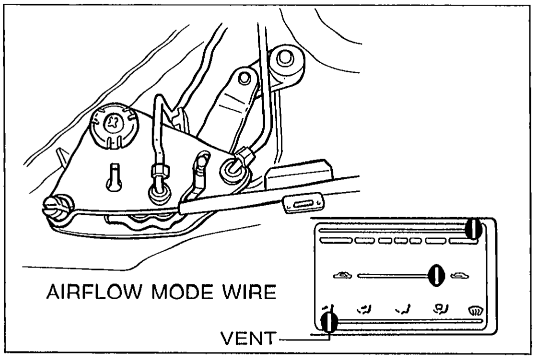
Adjustment

Temperature blend wire

1. Set the temperature blend lever to maximum hot position.
2. Connect and clamp the wire with the shutter lever on the heater unit all the way to the right.

Caution

- **After installation, move the temperature blend lever to be sure the wire is securely attached and that it moves the full stroke from HOT to COLD.**



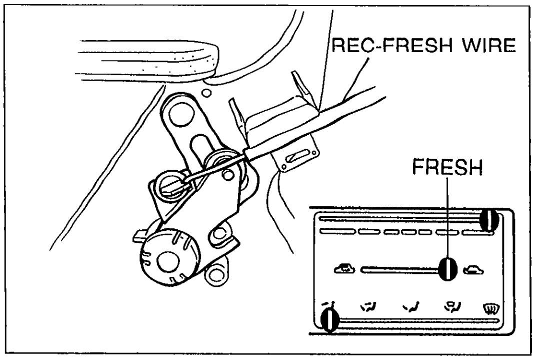
9MU0UX-232

Airflow mode wire

1. Set the airflow mode control lever to VENT position.
2. Connect and clamp the wire with the shutter lever on the heater unit at its closest point.

Caution

- **After installation, move the airflow mode control lever to be sure the wire is securely attached and that it moves the full stroke from DEF to VENT.**



05U0UX-044

Rec-Fresh wire

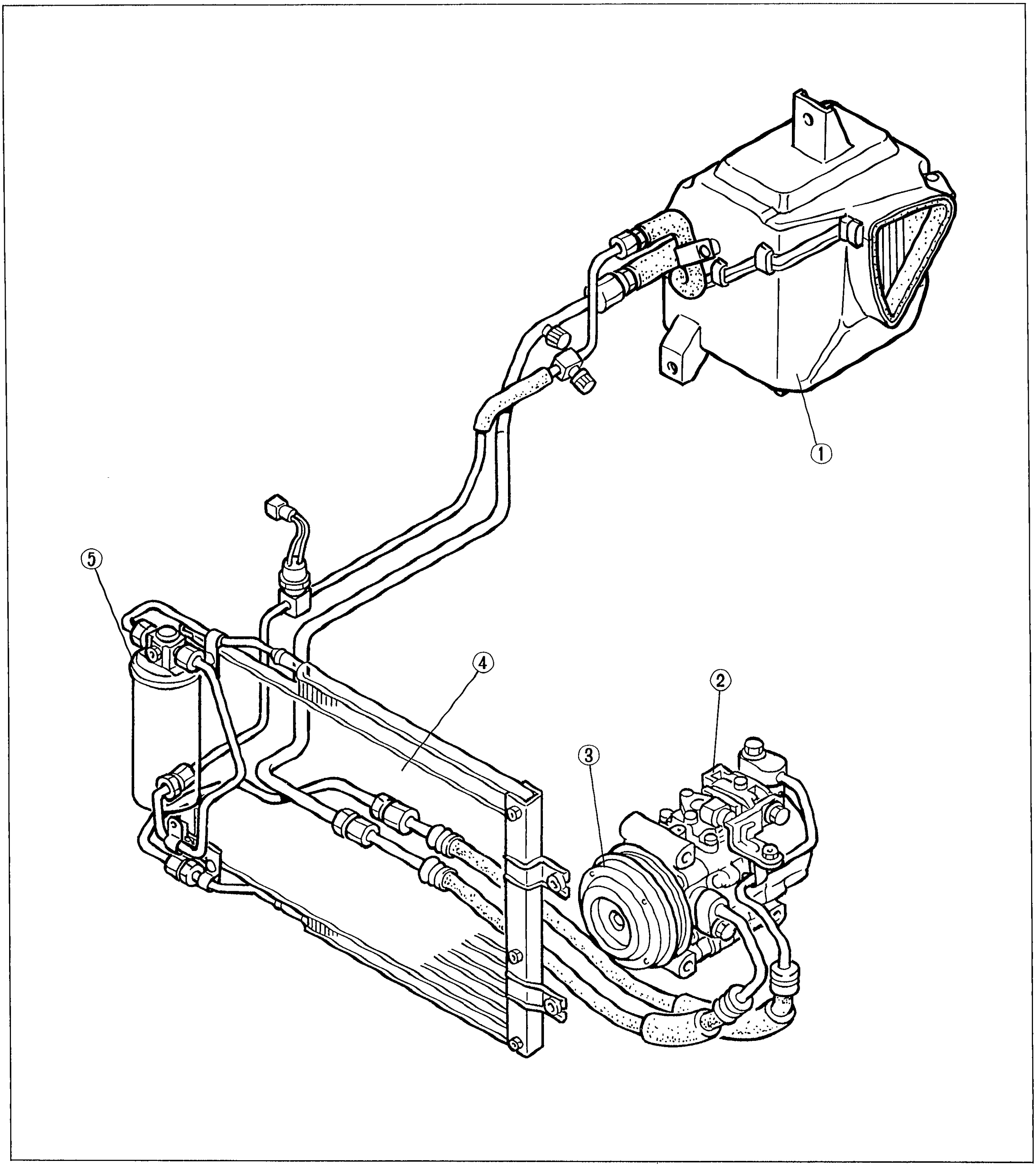
1. Set the Rec-Fresh lever to FRESH position.
2. Connect and clamp the wire with the shutter lever on the blower unit at its closest point.

Caution

- **After installation, move the Rec-Fresh lever to be sure the wire is securely attached and that it moves the full stroke from REC to FRESH.**

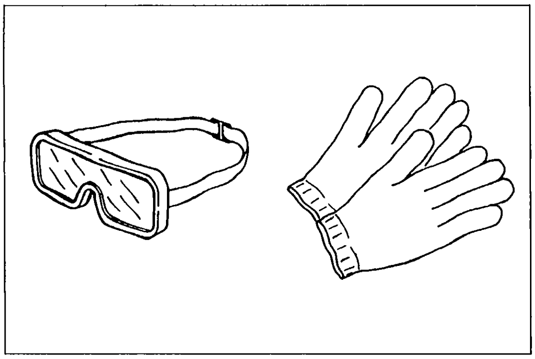
AIR CONDITIONER

STRUCTURAL VIEW



05U0UX-045

1. Cooling unit
   Removal / Installation.................. page U–32
   Disassembly / Assembly............. page U–33
2. Compressor
   Removal / Installation.................. page U–40
3. Magnetic clutch
   Disassembly / Assembly............. page U–41
4. Condenser
   Removal / Installation.................. page U–35
5. Reciver / drier
   Removal / Installation.................. page U–35

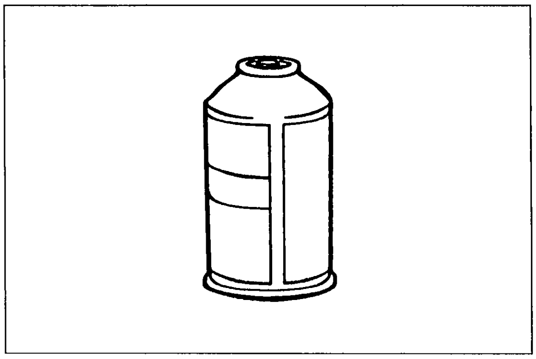


9MU0UX-125

REFRIGERANT SYSTEM

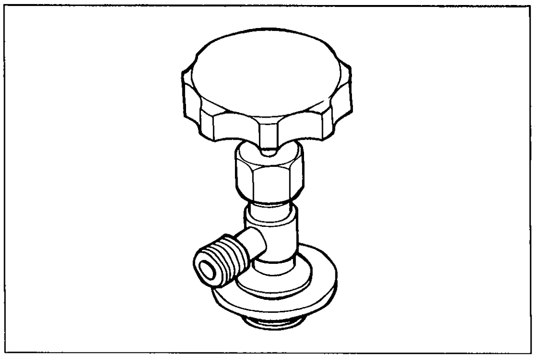
Safety Precaution

1. R-12 liquid refrigerant is highly volatile. A drop of it on the skin could result in localized frostbite. When handling the refrigerant, be sure to wear gloves.
2. If the refrigerant splashes into the eyes, wash them with clean water immediately. Always wear goggles or glasses to protect the eyes.



05U0UX-090

3. The R-12 container is a highly pressurized vessel. Never subject it to high heat, and be sure that the temperature where it is stored is below **52°C (125.6°F)**.
4. A halide leak detector is ofen used to check an A/C system for refrigerant leakage. Remember that R-12, upon coming into contact with the flame, produces phosgene, a toxic gas. Always provide adequate ventilation.

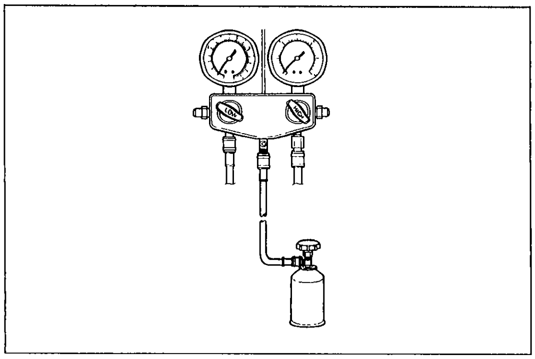


9MU0UX-127

Basic Procedure of Refrigerant System Service

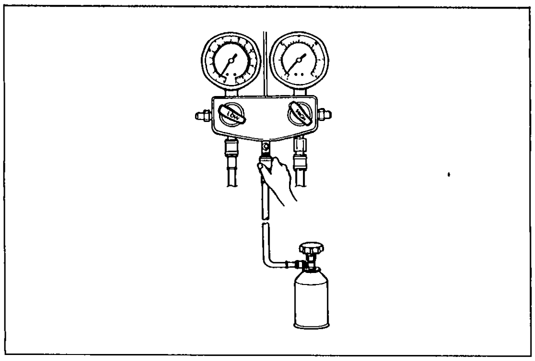
Refrigerant container service valve

1. Turn the handle fully counterclockwise before connecting the valve to the refrigerant container.
2. Turn the outlet valve counterclockwise until it reaches its highest position.



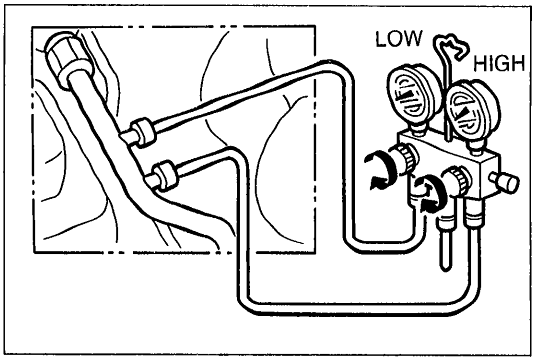
9MU0UX-128

3. Turn the outlet valve fully clockwise by hand. Connect the center hose to the valve fitting.
4. Turn the handle clockwise to puncture the sealed can.
5. Turn the handle fully counterclockwise to fill the center hose. Do not open the high- or low-pressure manual valves.



9MU0UX-129

6. Loosen the hose nut connected to the center fitting of the manifold gauge. Allow air to escape until gas is expelled; then retighten the nut.

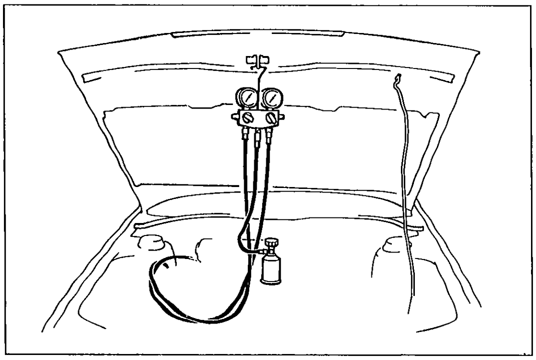


05U0UX-091

Installation of manifold gauge set

Note
- **Fittings for attaching the manifold gauge set are on the high- and low-pressure pipes.**

1. Close both hand valves of the manifold gauge set.
2. Connect the low-pressure hose to the low-pressure gauge fitting and high-pressure hose to the high-pressure gauge fitting.
3. Tighten the hose nuts by hand only.

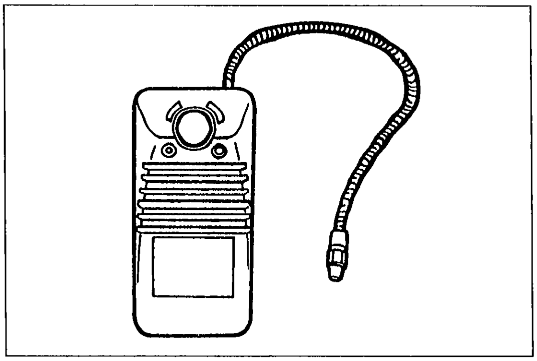


05U0UX-046

Leak test

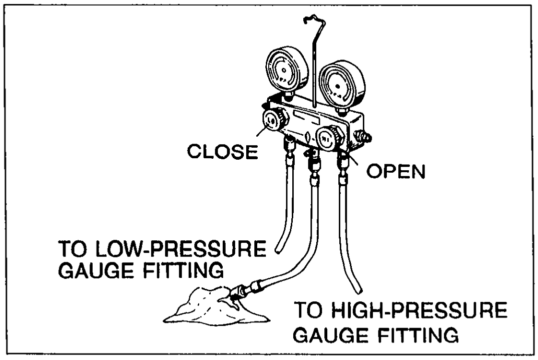
After evacuating the system (refer to page U–29), check for leaks.

1. Connect a full refrigerant container to the service valve.
2. Open the high-pressure manual valve to charge the system with refrigerant gas.



05U0UX-092

3. When the low-pressure gauge reads **98 kPa (1 kg/cm^2, 14 psi)**, close the high-pressure manual valve.
4. Use a gas leak detector to check the system for leaks. If a leak is found, repair the faulty component or connection; then evacuate the system again.



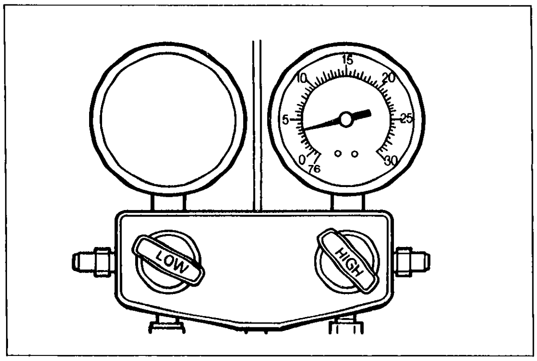
05U0UX-093

Discharging

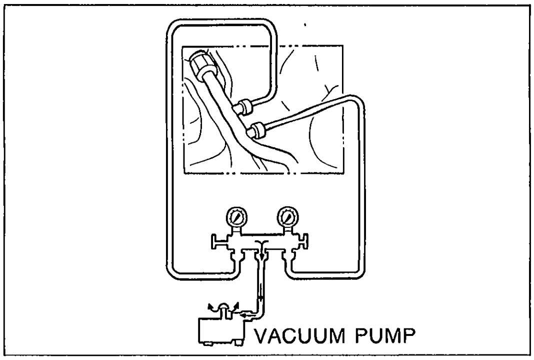
1. Connect the manifold gauge set to the refrigeration system.
2. Place the free end of the center hose on a shop towel.
3. Slowly open the high-pressure manual valve to allow the refrigerant to escape.

Caution
- **Open the valve only slightly.**
  If refrigerant is allowed to escape too fast, the compressor oil will be drawn out of the system.

4. Check the shop towel to make sure no oil is being discharged. If oil is present, partially close the manual valve.
5. After the manifold gauge reading drops below **343 kPa (3.5 kg/cm^2, 50 psi)**, slowly open the low-pressure manual valve.
6. As the system pressure drops, gradually open both the high- and low-pressure manual valves until both gauges show **0 kPa (0 kg/cm^2, 0 psi)**.



05U0UX-094

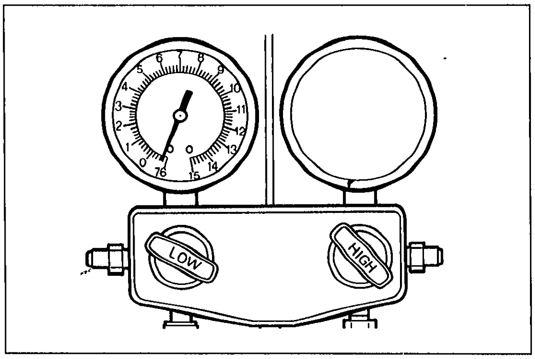


05U0UX-047

Evacuation

Whenever the refrigeration system has been exposed to the atmosphere, it must be purged of moisture and air.

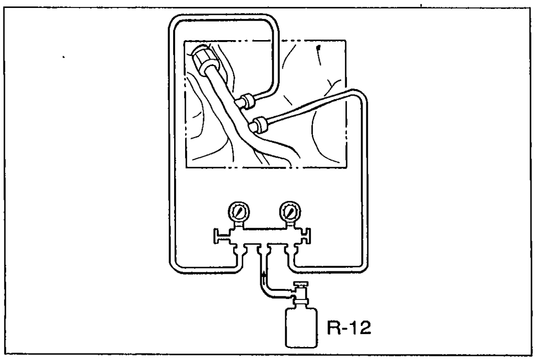
1. Connect the manifold gauge set. (Refer to page U–28.)
2. Connect the center hose of the gauge set to the vacuum pump inlet.
3. Start the vacuum pump and open both manual valves.



05U0UX-095

4. When the low-pressure gauge shows approximately **700 mmHg (27.6 inHg)**, close both manual valves and stop the vacuum pump.
5. Verify that the pressure remains the same for **5 minutes** or more. If the pressure changes, check the system for leaks, and repair as necessary.
6. If no leak is found, start the vacuum pump once again and open both manual valves to obtain **760 mmHg (29.9 inHg)**.
7. After the low-pressure gauge shows lower than **760 mmHg (29.9 inHg)**, continue evacuating for **20 minutes**.
8. Close both manual valves and stop the vacuum pump.
9. Disconnect the hose from the vacuum pump.

05U0UX-096



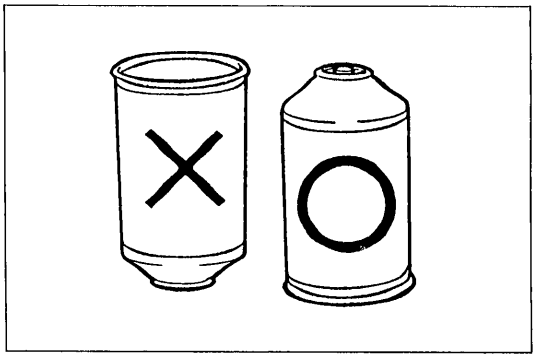
05U0UX-097

Charging

1. Close the high- and low-pressure manual valves fully after the system is evacuated.
2. Install the refrigerant container service valve.
3. Open the low-pressure manual valve to charge the system with refrigerant gas.

Note

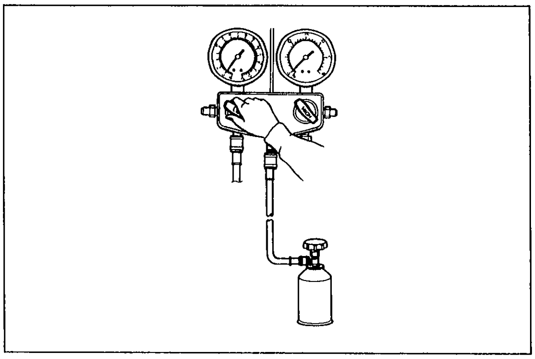
- **When charging of the system becomes slow, run the engine at fast idle and operate the air conditioner.**



96U16X-098

Caution

- **Be sure to keep the container in the upright position to prevent liquid refrigerant from being charged into the system through the suction side, possibly damaging the compressor.**
- **Never open the high-pressure manual valve while charging the system with the A/C ON. Doing so may cause the refrigerant can to explode.**

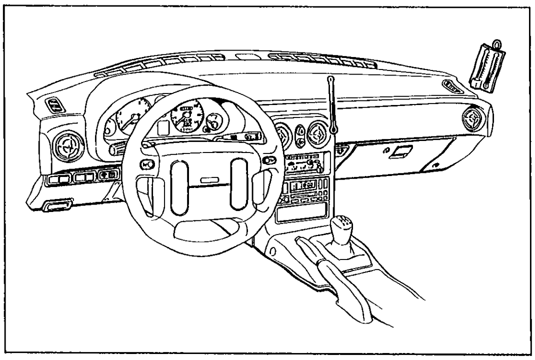


05U0UX-048

4. Charge the system with the specified amount of refrigerant.

   Specified amount: 800 g (28.24 oz)

5. Close the low-pressure manual valve and the service valve of the refrigerant container.
6. Carry out a performance test (Refer to below.).
7. Stop the air conditioner and the engine.
8. Quickly disconnect both hoses from the gauge fittings.
9. Put the cap nuts on the gauge fittings.

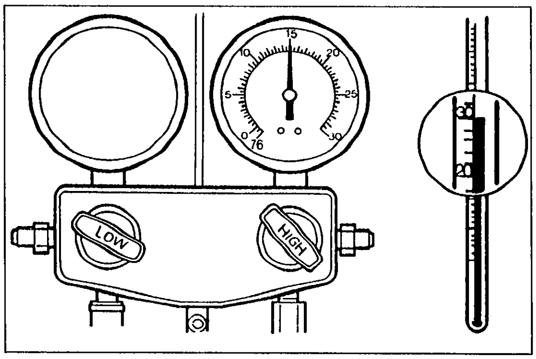


05U0UX-049

Performance test

After finishing repairs, conduct a performance test of the air conditioning system as follows.

1. Connect the manifold gauge set. (Refer to page U–28.)
2. Start the engine and keep the engine speed at **1,500 rpm**.
3. Operate the air conditioner at maximum cooling.
4. Open all windows and doors.
5. Place a dry-bulb thermometer in the center ventilator outlet.
6. Place a dry and wet thermometer close to the blower inlet.



05U0UX-050

7. Wait until the air conditioner outlet temperature stabilizes.

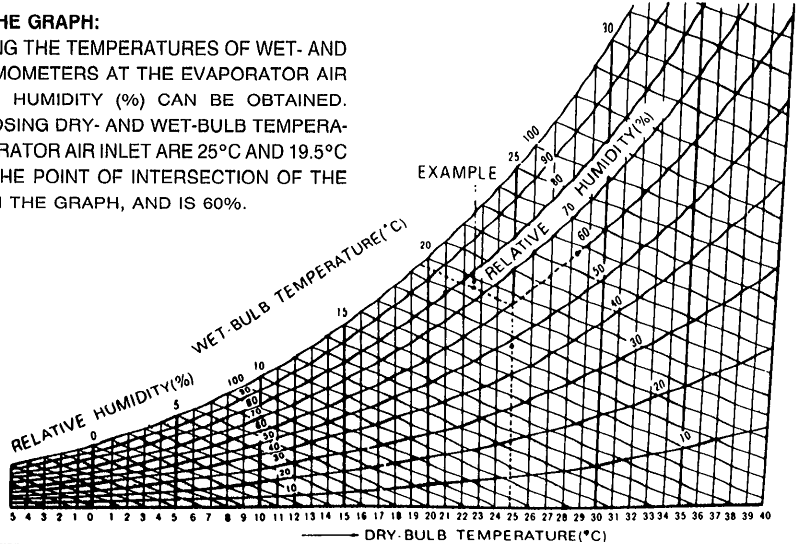
   Stabilized condition
   Blower inlet temperature: 25—35°C (77—95°F)
   High-pressure side:
   1,177—1,619 kPa (12.0—16.5 kg/cm², 171—235 psi)

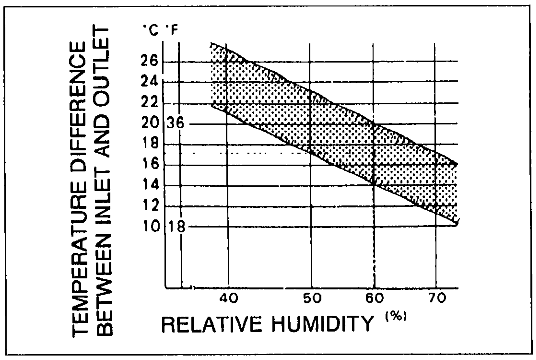
   Note
   - **If the high-pressure side becomes too high, pour cool water on the condenser. If it is too low, cover the front of the condenser.**

8. After the air conditioner stabilizes, read the dry and wet thermometer at the air inlet.
9. Calculate the relative humidity from the chart below by comparing the wet- and dry-bulb readings.

05U0UX-051

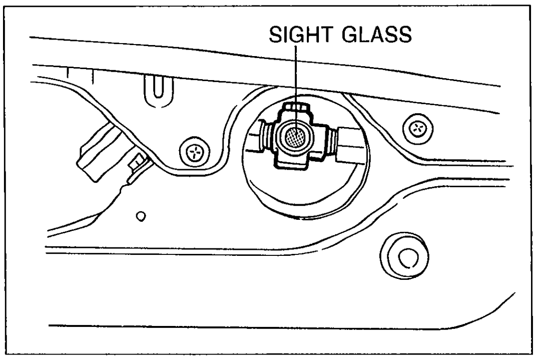
HOW TO READ THE GRAPH:
AFTER MEASURING THE TEMPERATURES OF WET- AND DRY-BULB THERMOMETERS AT THE EVAPORATOR AIR INLET, RELATIVE HUMIDITY (%) CAN BE OBTAINED. EXAMPLE: SUPPOSING DRY- AND WET-BULB TEMPERATURES AT EVAPORATOR AIR INLET ARE 25°C AND 19.5°C RESPECTIVELY THE POINT OF INTERSECTION OF THE DOTTED LINES IN THE GRAPH, AND IS 60%.





96U16X-103

10. Read the dry thermometer at the air outlet, and calculate the difference between the inlet dry bulb and outlet dry bulb temperatures.
11. Verify that the intersection of the relative humidity and temperature difference is in the shaded zone.



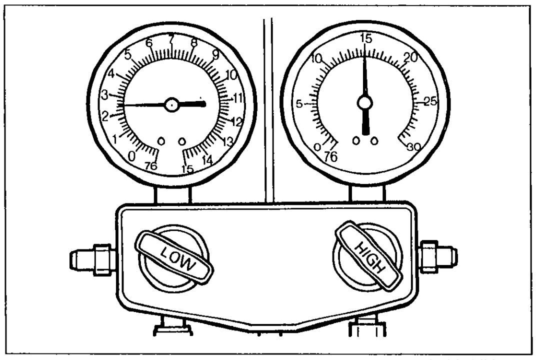
9MU0UX-139

Checking refrigerant charge

1. Run the engine at a fast idle.
2. Operate the air conditioner at maximum cooling for a few minutes.
3. Determine the amount of refrigerant as shown below by observing the sight glass.

Item	Symptom	Amount of refrigerant	Action
1	Bubbles present in sight glass	Insufficient refrigerant	Check refrigerant pressure
2	No bubbles present in sight glass	Too much or proper amount of refrigerant	Turn air conditioner off, and watch bubbles (Refer to Items 3 and 4)
3	Immediately after air conditioner turned off, refrigerant in sight glass stays clear	Too much refrigerant	Check refrigerant pressure
4	When air conditioner turned OFF, refrigerant foams, and then sight glass becomes clear	Proper amount of refrigerant	Refrigerant amount normal

9MU0UX-140



05U0UX-052

Checking refrigerant pressure

1. Connect the manifold gauge set. (Refer to page U–28.)
2. Operate the engine at 1,500 rpm and set the air conditioner to maximum cooling.
3. Measure the low- and high-pressure sides.

Normal pressure

Low-pressure side:

147—294 kPa (1.5—3.0 kg/cm^2, 21—43 psi)

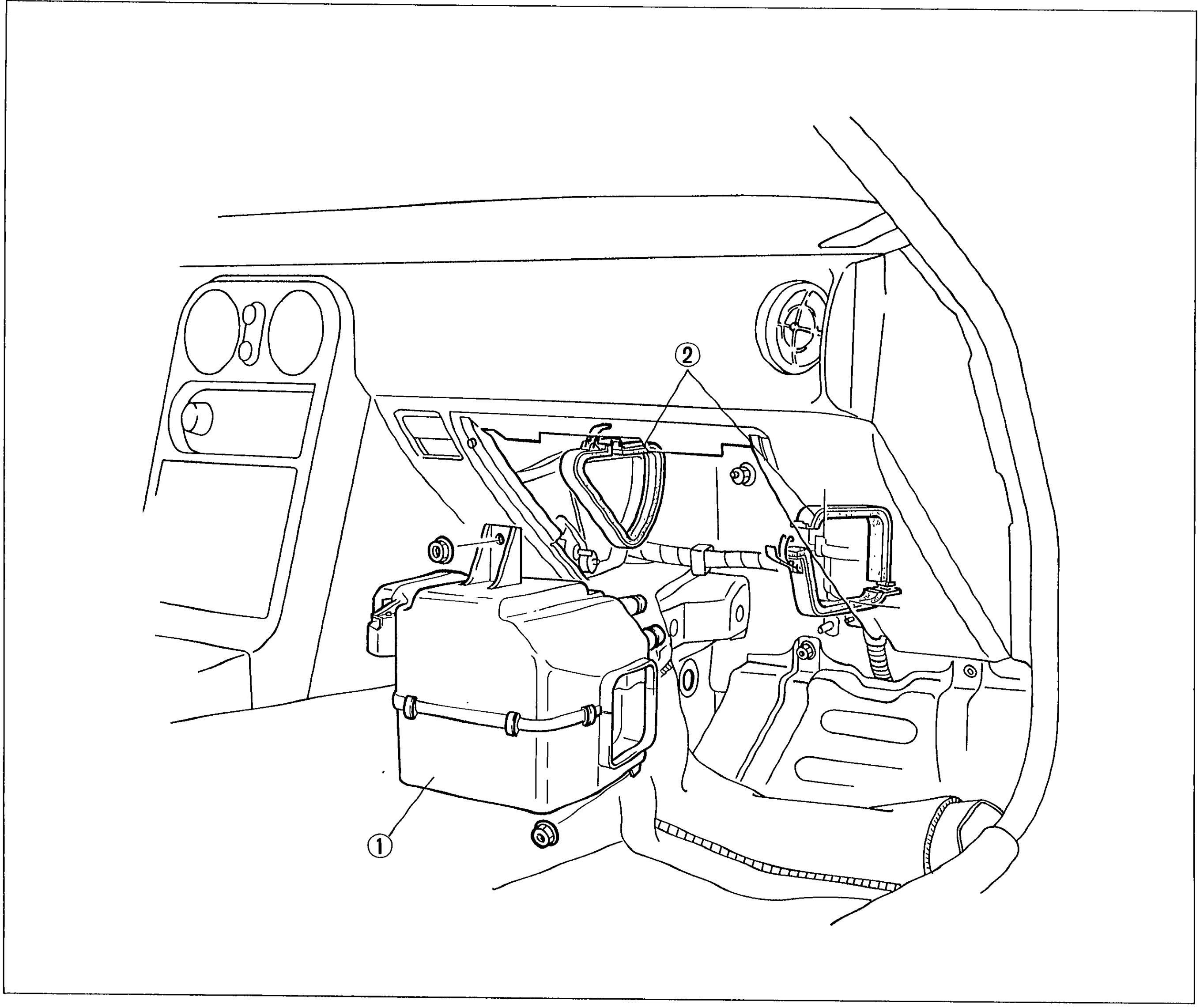
High-pressure side:

1,177—1,619 kPa (12.0—16.5 kg/cm^2, 171—235 psi)

COOLING UNIT

Removal / Installation

1. Discharge the refrigerant system. (Refer to page U–28.)
2. Remove the cooling unit as shown in the figure, referring to **Removal Note**.
3. Install the cooling unit in the reverse order of removal, referring to **Installation Note**.
4. Charge the refrigerant system. (Refer to page U–29.)



05U0UX-053

1. Cooling unit
2. Sealing plate

Removal note

- **Immediately plug all open fittings to keep moisture out of the system.**

Installation note

- **Position the cooling unit so that its connections match those of the heater unit and the blower unit.**
- **Apply clean compressor oil to the O-rings before connecting the fittings.**
- **Do not apply compressor oil to the fitting nuts.**
- **If the evaporator is replaced, add compressor oil to the compressor.**

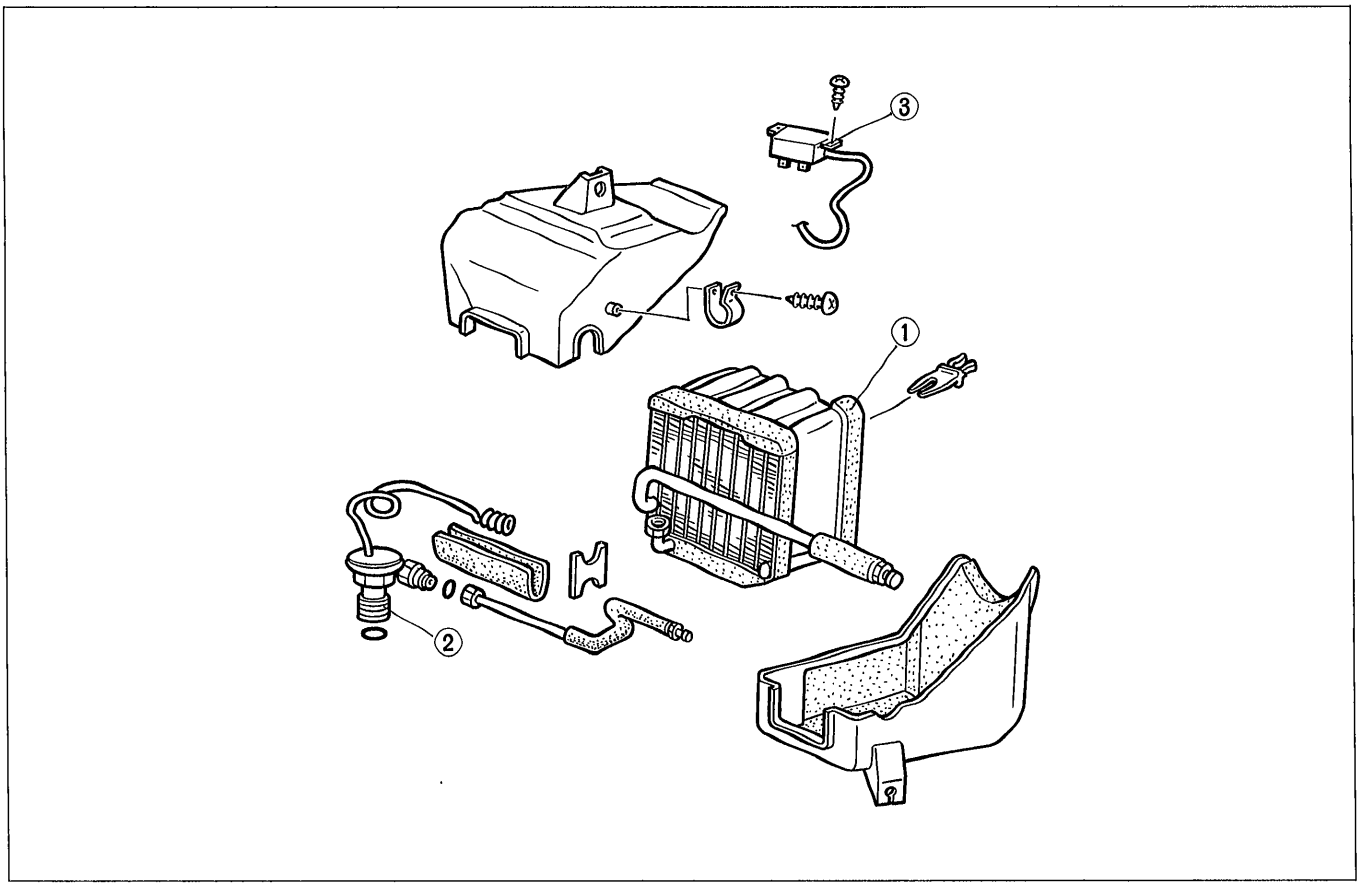
Compressor oil: 50 cc (3.05 cu in)

- **Tightening torque:**
  Inlet pipe : 9.8—20 N·m (1.0—2.0 m-kg, 7.2—14 ft-lb)
  Outlet pipe : 20—29 N·m (2.0—3.0 m-kg, 14—22 ft-lb)

05U0UX-054

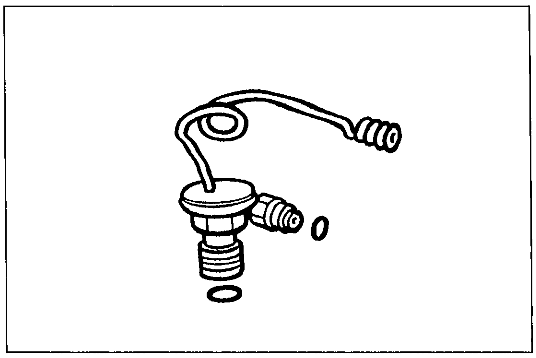
Disassembly / Assembly

Disassemble and assemble as shown in the figure.



05U0UX-055

1. Evaporator
2. Expansion valve
3. Thermoswitch



05U0UX-056

Replacement
Expansion valve

Note
- **Before replacement of the expansion valve, carefully check the refrigeration system, referring to the troubleshooting information on page U–12.**

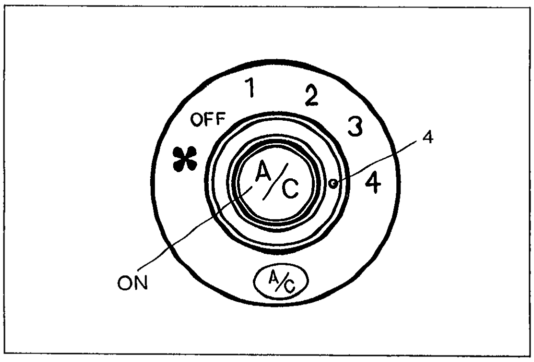
1. Remove the cooling unit. (Refer to page U–32.)
2. Disassemble the cooling unit. Remove the evaporator and expansion valve as an assembly.
3. Disconnect the inlet and outlet pipes.
4. Remove the capillary tube from the outlet pipe and remove the expansion valve.
5. Install in the reverse order of removal, noting the following.

Note
- **Apply clean compressor oil to the O-rings before connecting the fittings.**
- **Do not apply compressor oil to the fitting nuts.**

Tightening torque:
Inlet pipe:
12—15 N·m (1.2—1.5 m-kg, 8.7—11 ft-lb)
Outlet pipe:
29—34 N·m (3.0—3.5 m-kg, 22—25 ft-lb)

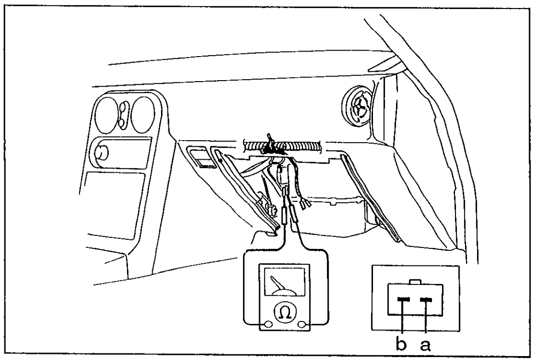
On-vehicle Inspection

Thermoswitch



05U0UX-057

1. Remove the glove box.
2. Run the engine at idle.
3. Turn OFF the A/C switch and set the blower switch to the highest position to operate the blower fan for a few minutes.



05U0UX-058

4. After a few minutes, turn OFF the blower switch and stop the engine.
5. Disconnect the thermoswitch connector and check for continuity between terminals of the switch.

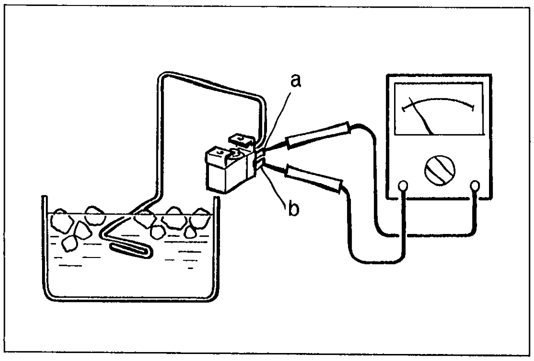
Terminals	Continuity
a—b	Yes

6. If not as specified, replace the thermoswitch.

Note
- **The thermoswitch contacts will be open if the evaporator temperature is below 0°C (32°F).**

Inspection

Thermoswitch



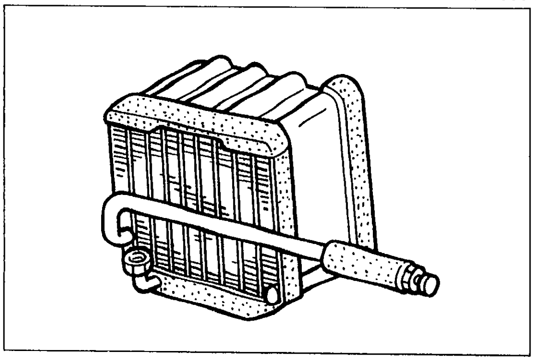
05U0UX-059

1. Immerse the sensing bulb in a container of ice water.
2. Check continuity between terminals of the switch as specified.

Terminals	Temperature	Continuity
a—b	Above 0°C (32°F)	Yes
	Below 0°C (32°F)	No

3. If not as specified, replace the thermoswitch.

Evaporator



05U0UX-060

1. Check the evaporator fins for blockage. If the fins are clogged, clean them with compressed air.

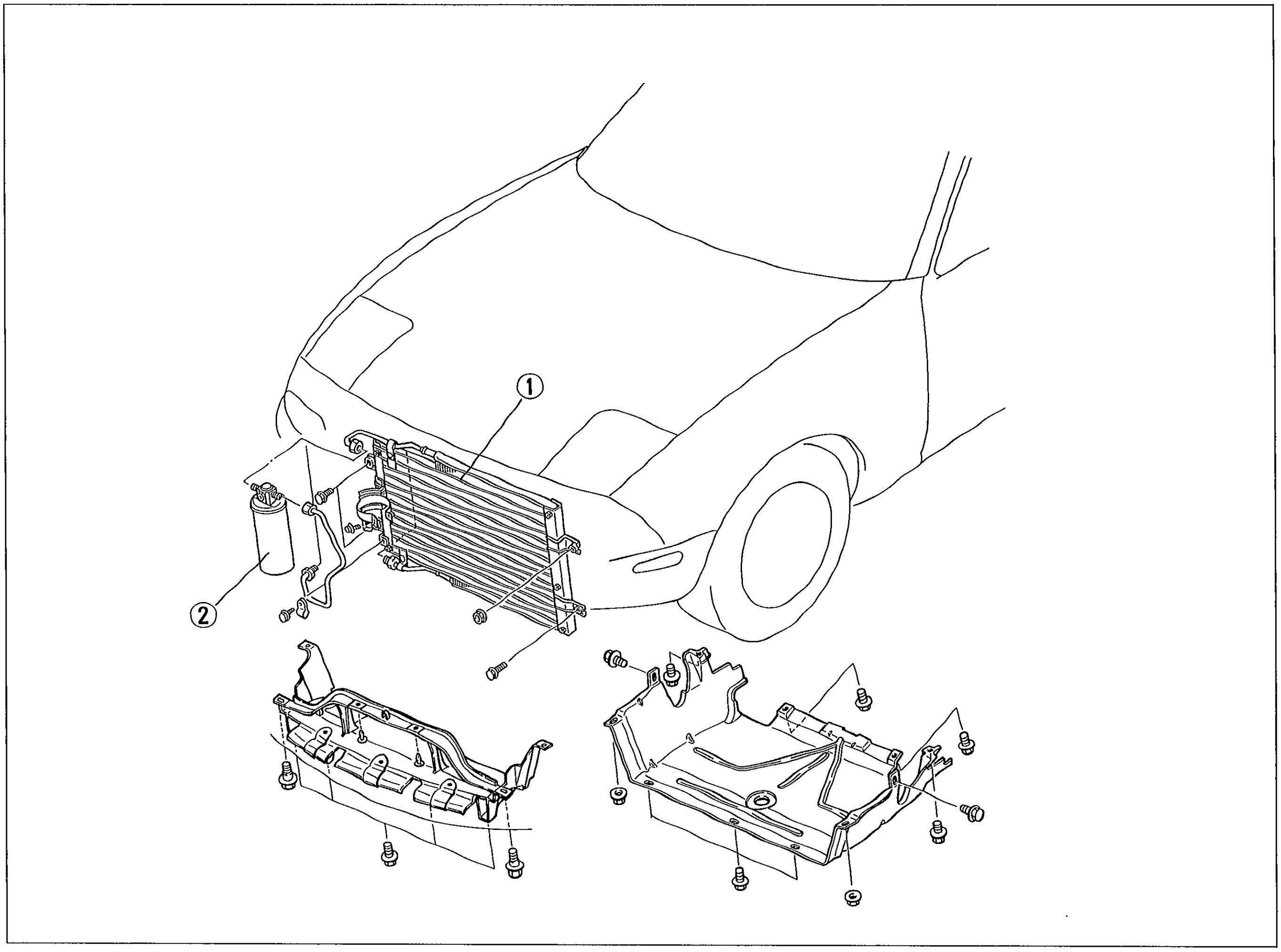
Caution
- **Never use water to clean the evaporator.**

2. Check the fittings for cracks and other damage. Replace the evaporator if necessary.

CONDENSER AND RECEIVER/DRIER

Removal / Installation

1. Raise the front of the vehicle at least 300mm (11.8 in) and support it on safety stands.
2. Discharge the refrigerant system. (Refer to page U–28.)
3. Remove the splash shield and air guide.
4. Remove the condenser and receiver/drier as an assembly as shown in the figure, referring to **Removal Note**.
5. Install the condenser and receiver/drier in the reverse order of removal, referring to **Installation Note**.
6. Install the air guide and splash shield.
7. Charge the refrigerant system. (Refer to page U–29.)



05U0UX-061

1. Condenser
2. Receiver/Drier

Removal note

- **Immediately plug any open fittings to keep moisture out of the system.**

Installation note

- **Apply clean compressor oil to the O-rings before connecting the fittings.**
- **Do not apply compressor oil to the fitting nuts.**
- **If the condenser or receiver/drier is replaced, add the specified amount of compressor oil.**

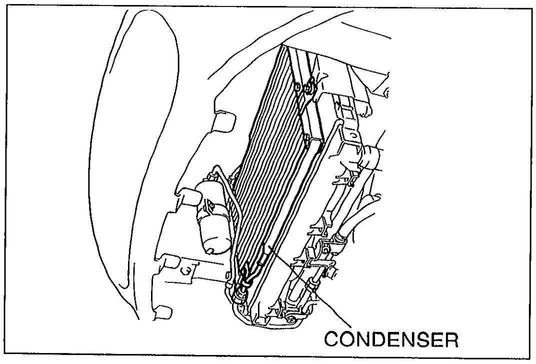
Replaced part	Compressor oil amount
Condenser	30 cc (1.83 cu in)
Receiver/drier	10 cc (0.61 cu in)

Tightening torque:
Receiver/drier inlet and outlet: 9.8—20 N·m (1.0—2.0 m-kg, 7.2—14 ft-lb)
Condenser inlet : 15—25 N·m (1.5—2.5 m-kg, 11—18 ft-lb)

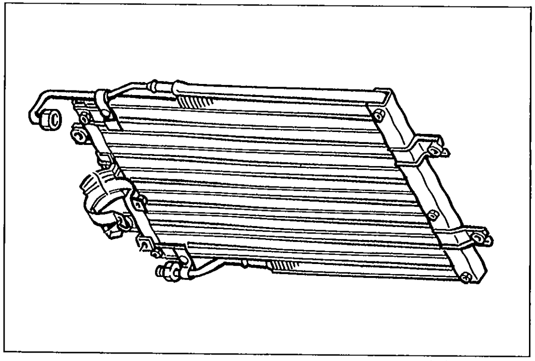
05U0UX-062

On-vehicle Inspection

Condenser

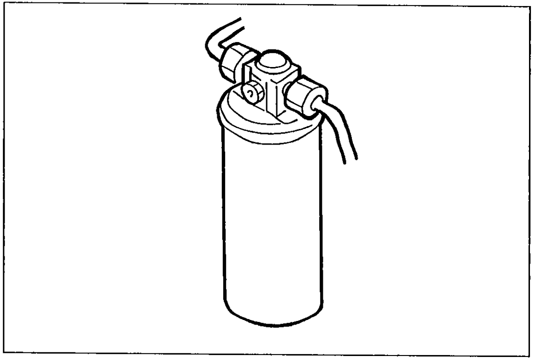


1. Check for oil stains on the condenser or fittings.
2. If staining is found at a fitting, replace the O-ring at the fitting.
3. Charge the system and check for leaks.
4. If leakage is found at a fitting or the condenser, replace parts as necessary.



5. Check the condenser for the following and repair or replace as necessary.
   (1) Cracks or damage.
   (2) Bent fins.
   (3) Distorted or damaged condenser inlet or outlet.

Receiver / drier



1. Check for oil stains on the fittings.
2. If staining is found, replace the O-ring at the fitting.
3. Charge the system and check for leaks.
4. If leakage is found, check and replace the receiver/drier or piping.

REFRIGERANT LINES

On-vehicle Inspection

Check for leakage at connections by using a gas leak tester. Repair or replace as necessary.

Replacement

1. Discharge the refrigerant system. (Refer to page U–28.)
2. Replace the faulty pipe or hose.

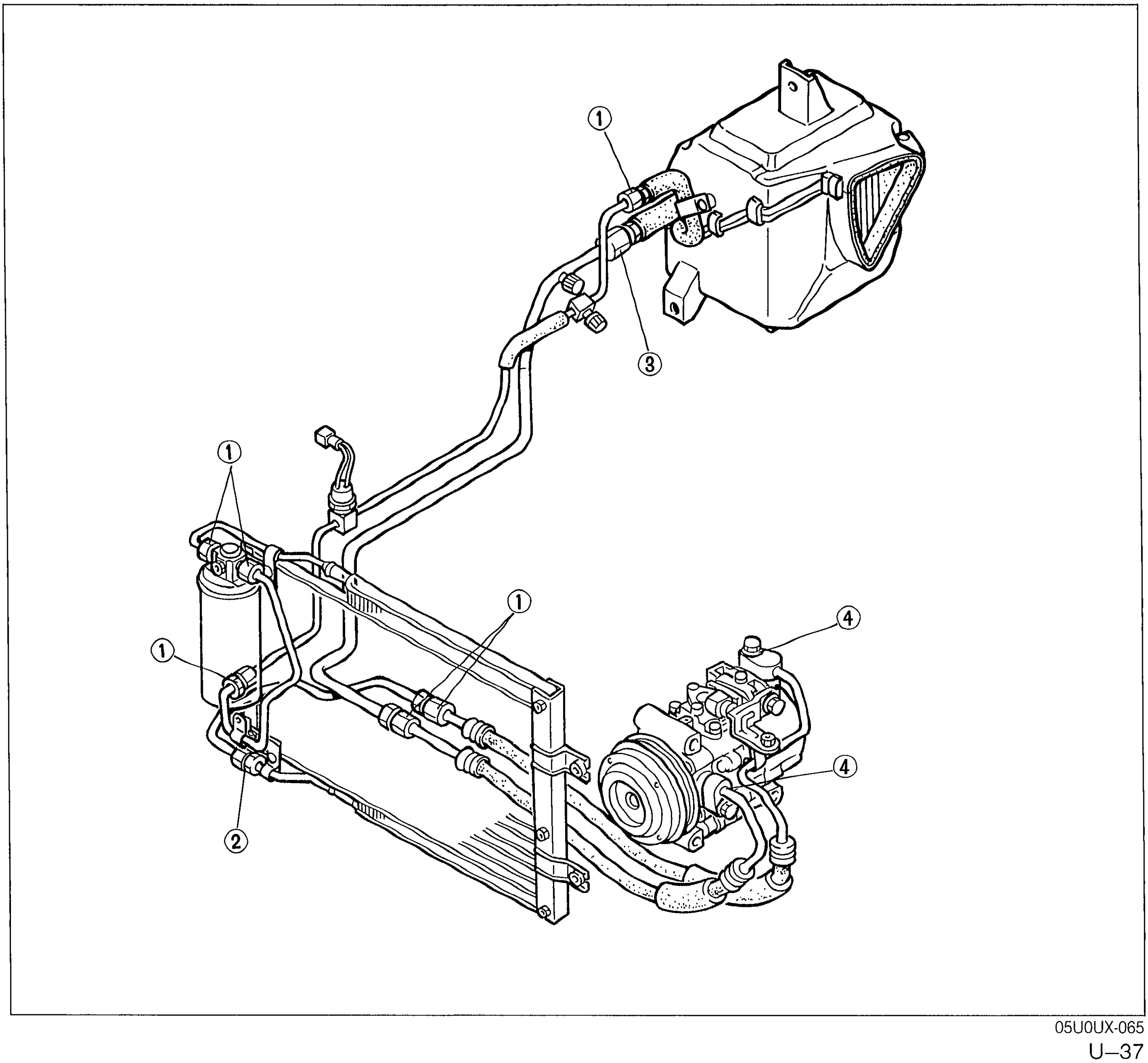
Note

- **Immediately plug any open fittings to keep moisture out of the system.**

Tightening torque (fittings):

Location	Tightening torque
①	9.8—20 N·m (1.0—2.0 m-kg, 7.2—14 ft-lb)
②	15—25 N·m (1.5—2.5 m-kg, 11—18 ft-lb)
③	20—29 N·m (2.0—3.0 m-kg, 14—22 ft-lb)
④	9.8—16 N·m (1.0—1.6 m-kg, 7.2—12 ft-lb)

3. Evacuate, charge, and test the refrigerant system.

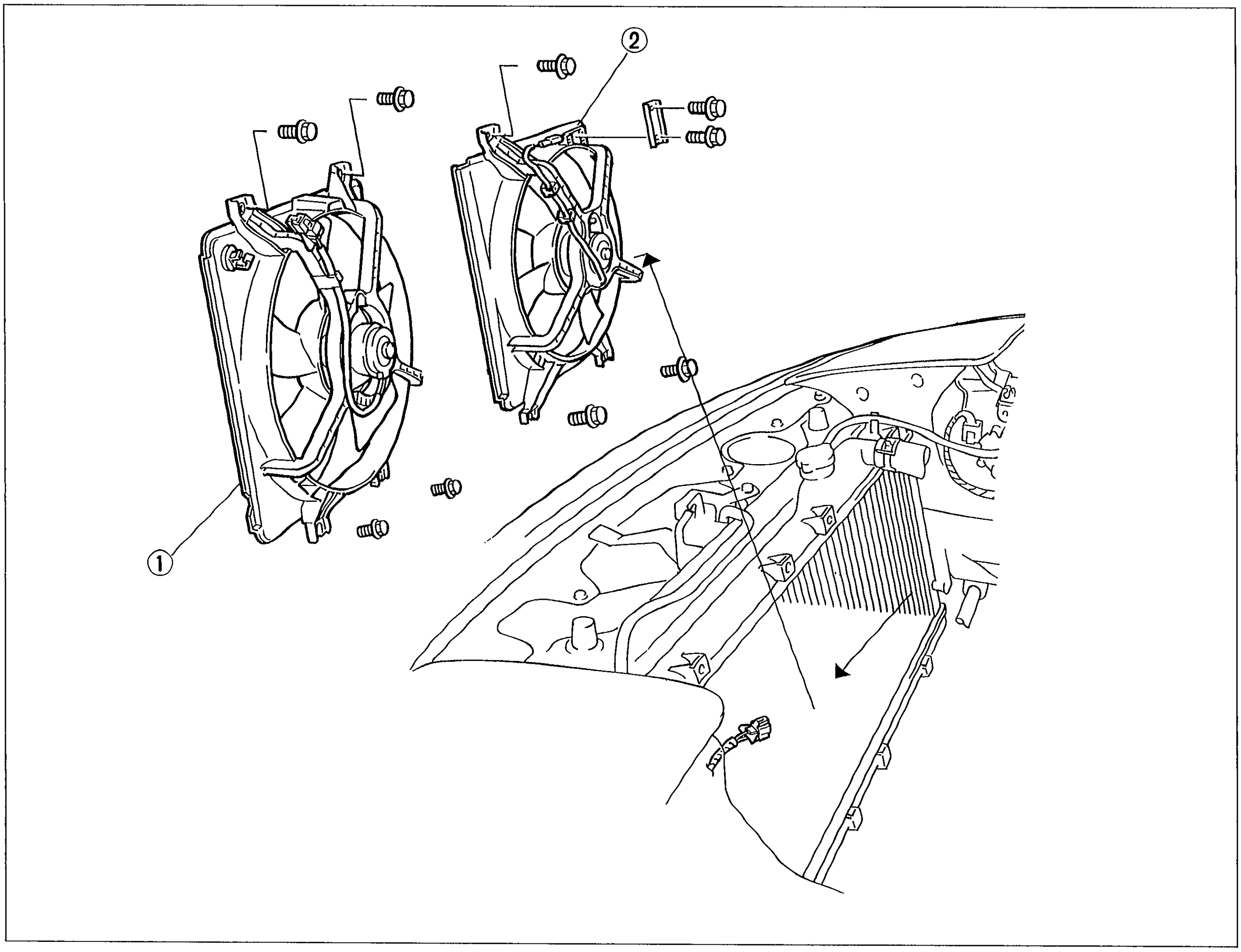


05U0UX-065

CONDENSER FAN
Removal / Installation

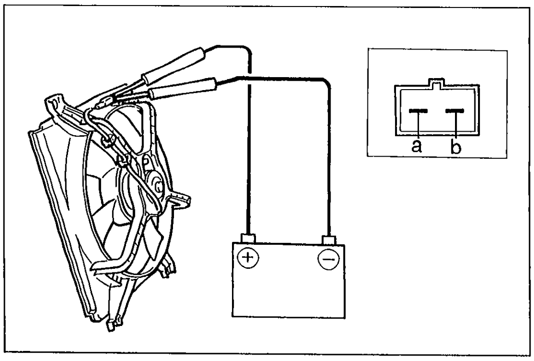
Caution
- **Obtain the code number and deactive the audio anti-theft function before disconnecting the battery cable.**

1. Disconnect the negative battery cable.
2. Disconnect the cooling fan connector.
3. Remove the bolts and cooling fan.
4. Remove the condenser fan as shown in the figure.
5. Install the condenser fan in the reverse order of removal.



05U0UX-066

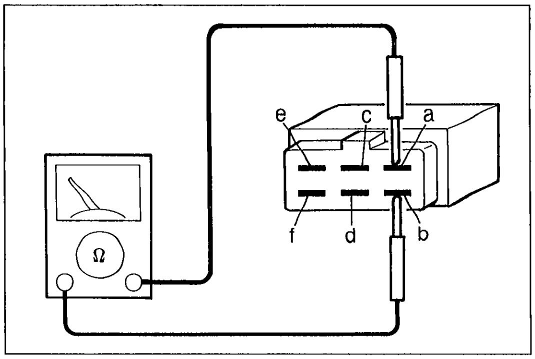
1. Cooling fan
2. Condenser fan



05U0UX-067

Inspection
1. Disconnect the condenser fan connector.
2. Verify that the condenser fan motor runs when connecting 12V to terminal a and grounding terminal b.

Connection		Motor operation
12V	Ground	
a	b	Yes



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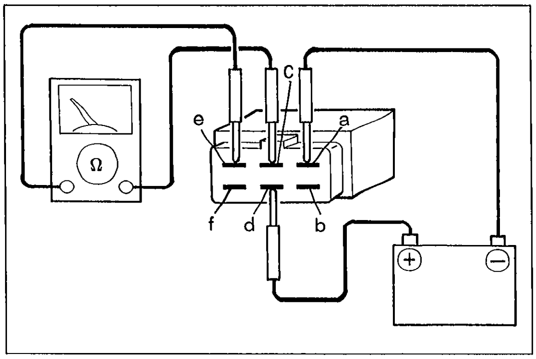

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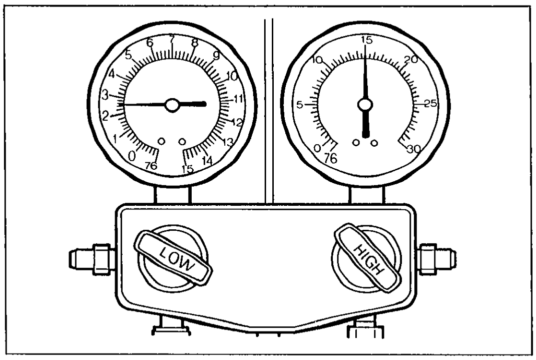

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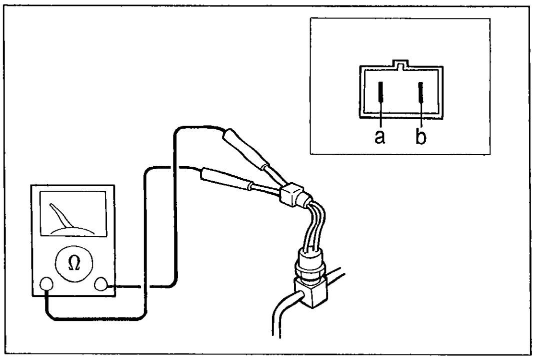


05U0UX-071

A/C RELAY

Inspection

1. Check continuity between terminals of the relay.

	Terminals					
	a	b	c	d	e	f
Continuity	○—|◀	—○				
	○—	—	|◀—	—○		
			○—	—▶|	—○	
			○—	—	—	—○

○—○ : Indicates continuity
○\|◀○ : Indicates diode

2. If not as specified, replace the relay.
3. If correct, go to the next step.
4. Apply 12V to terminal d and ground terminal a.
5. Check continuity between terminals of the relay.

	Terminals		
	c	e	f
Continuity	○—	—○	

○—○ : Indicates continuity

6. If not as specified, replace the relay.

REFRIGERANT PRESSURE SWITCH

Inspection

1. Turn the ignition switch OFF.
2. Connect the manifold gauge set and measure the high-pressure side refrigerant pressure.

High-pressure side:
Above 216 kPa (2.2 kg/cm^2, 31.2 psi)

3. If not as specified, check the refrigerant system. (Refer to page U–12.)
4. If correct, go to the next step.
5. Disconnect the refrigerant pressure switch connector.
6. Check for continuity of the switch.

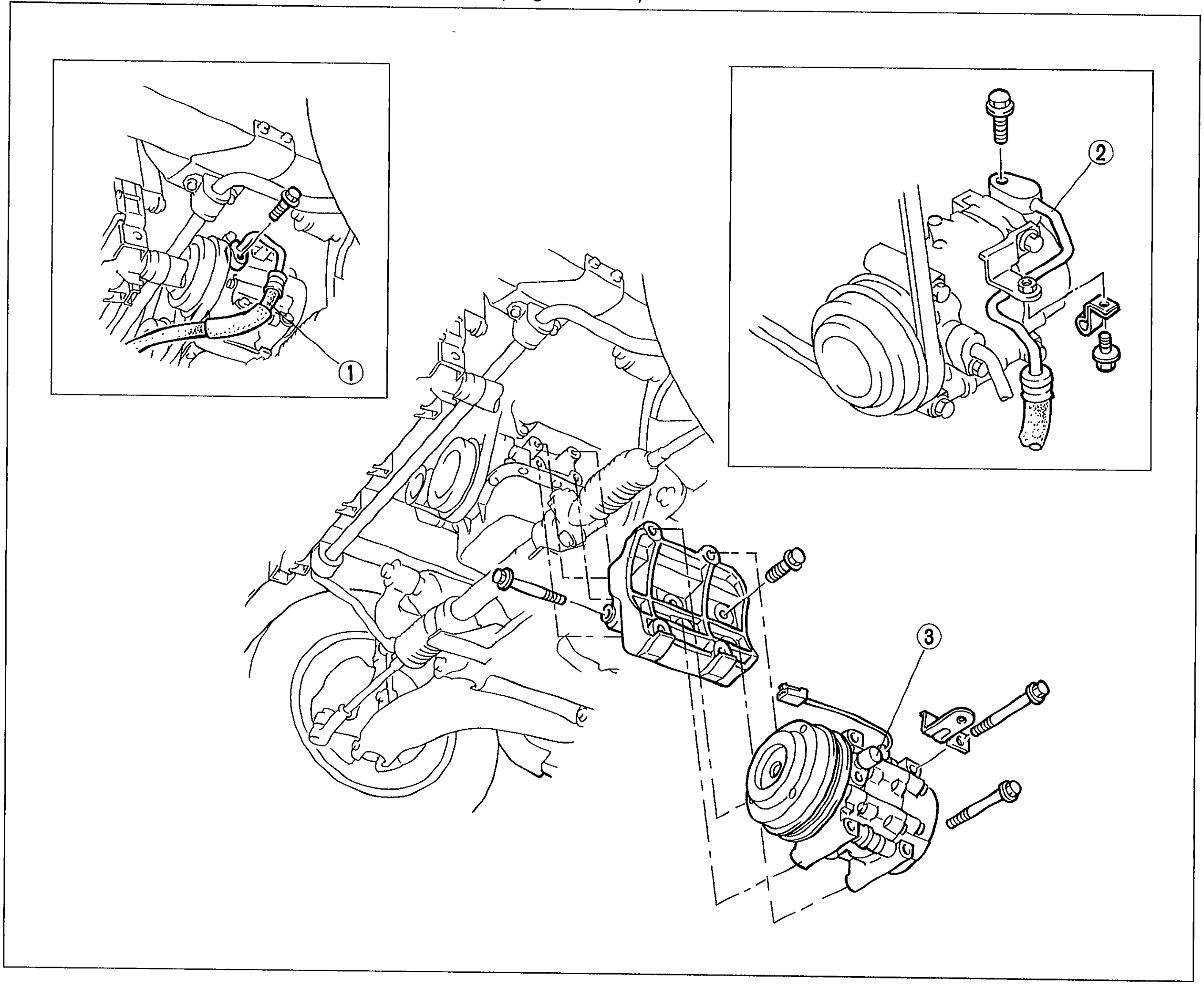
Terminals	Continuity
a—b	Yes

7. If not as specified, replace the switch and the suction pipe.

COMPRESSOR

Removal / Installation

1. Raise the front of the vehicle at least 300mm (11.8 in) and support it with safety stands.
2. Discharge the refrigerant system. (Refer to page U–28.)
3. Remove the splash shield and air guide.
4. Remove the compressor as shown in the figure, referring to **Removal Note**.
5. Install the compressor in the reverse order of removal, referring to **Installation Note**.
6. Install the air guide and splash shield.
7. Charge the refrigerant system. (Refer to page U–29.)



05U0UX-072

1. Suction hose
2. Discharge hose
3. Compressor

Removal note

- **Immediately plug any open fittings to keep moisture out of the system.**

Installation note

- **Apply clean compressor oil to the O-rings before connecting the fittings.**
- **Do not apply compressor oil to the fitting nuts.**
- **Adjust the belt tension to specification. (Refer to page U–43.)**

Tightening torque:

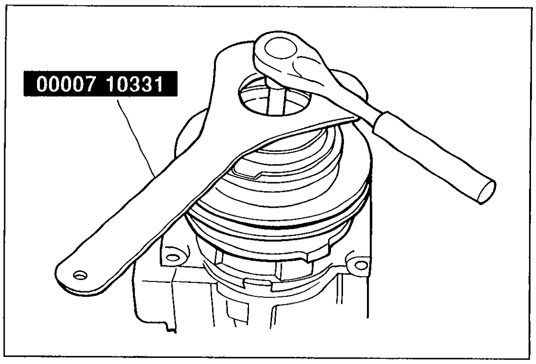
Compressor inlet and outlet: 9.8—16 N·m (1.0—1.6 m-kg, 7.2—12 ft-lb)

Compressor mounting bolt : 14.7—21.6 N·m (1.5—2.2 m-kg, 10.8—15.9 ft-lb)

05U0UX-073

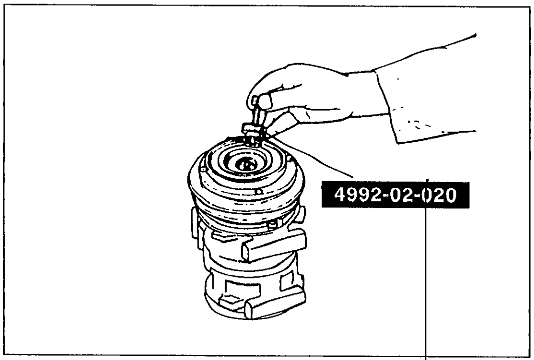
Disassembly / Assembly

Magnetic clutch


00007 10331

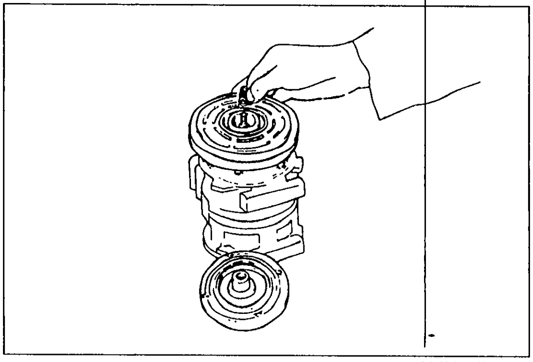
05U0UX-074

1. Hold the clutch with the **SST** and remove the shaft nut.



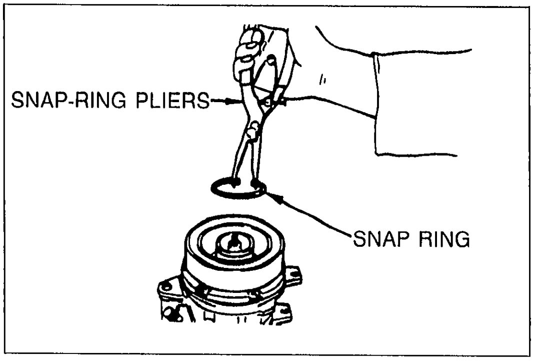
9MU0UX-157

2. Remove the pressure plate with the **SST**.



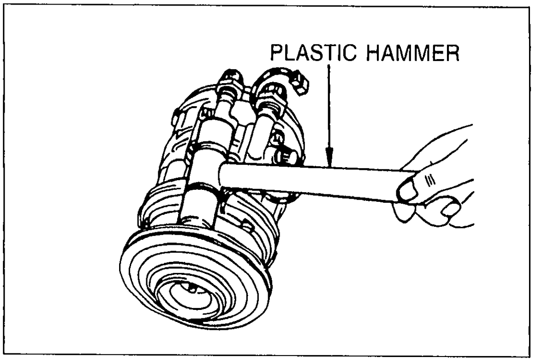
9MU0UX-158

3. Remove the shims.


SNAP-RING PLIERS
SNAP RING

9MU0UX-159

4. Remove the snap ring.

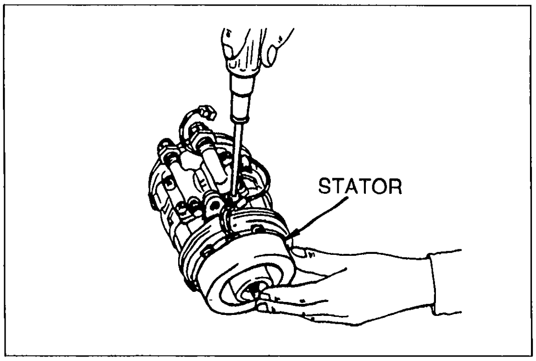

PLASTIC HAMMER

05U0UX-075

5. Remove the rotor by tapping it with a plastic hammer.

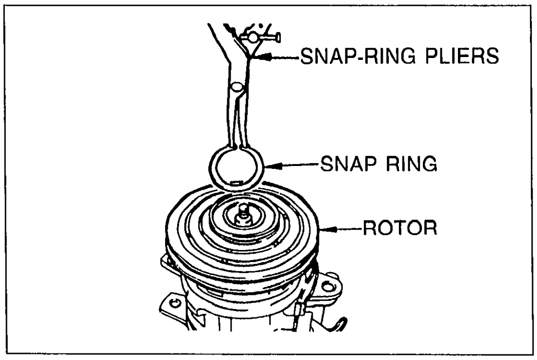
Note

- **Do not damage the pulley when tapping the rotor.**



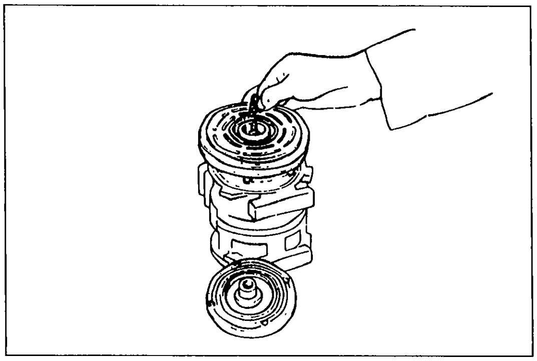
05U0UX-076

6. Disconnect the stator wires from the compressor housing.



9MU0UX-162

7. Remove the snap ring and the stator.



05U0UX-077

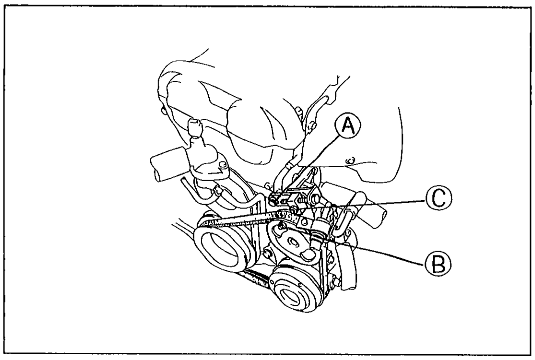
8. Assemble in the reverse order of disassembly, referring to **Assembly note**.

Assembly note

- **Adjust the clearance between the pressure plate and the rotor after referring to the table and selecting the proper shims.**

Standard clearance: 0.4—0.6mm (0.016—0.024 in)

Part No.	Thickness
KA10 61 L12	0.10mm (0.004 in)
KA10 61 L22	0.30mm (0.012 in)
KA10 61 L23	0.50mm (0.020 in)



05U0UX-078

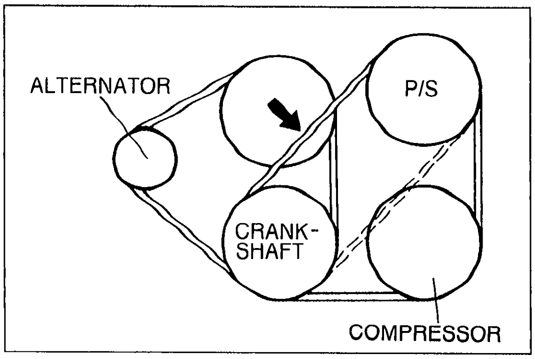
Adjustment

Drive belt

(With P/S)

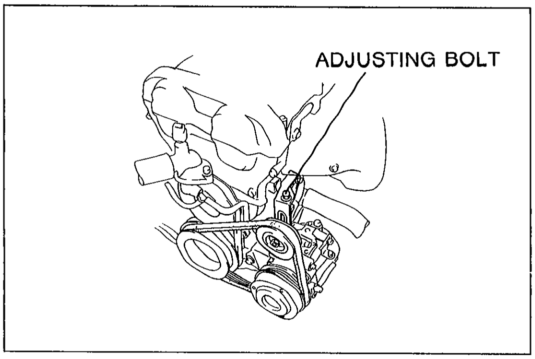
1. Loosen P/S oil pump bolts Ⓐ and Ⓑ and nut Ⓒ.
2. Adjust the belt tension and deflection to specification by turning adjusting bolt Ⓓ.
3. Tighten bolts Ⓐ and Ⓑ and nut Ⓒ.

Tightening torque:
Ⓐ : 31—46 N·m (3.2—4.7 m-kg, 23—34 ft-lb)
Ⓑ : 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)
Ⓒ : 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)


ALTERNATOR
P/S
CRANK-SHAFT
COMPRESSOR

05U0UX-079

	Specification	
	New	Used
Tension	491—589 N (50—60 kg, 110—132 lb)	422—491 N (43—50 kg, 95—110 lb)
Deflection when applying moderate pressure 98 N (10 kg, 22 lb)	8.0—9.0mm (0.31—0.35 in)	9.0—10.0mm (0.35—0.39 in)

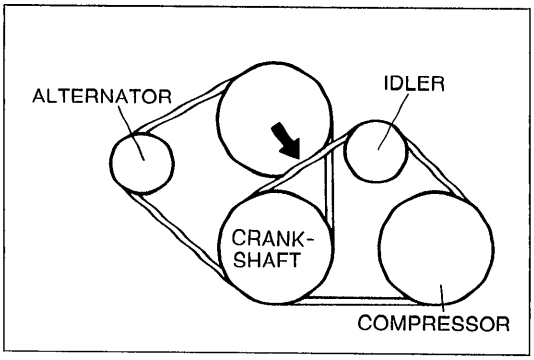

ADJUSTING BOLT

05U0UX-080

(Without P/S)

1. Loosen the locknut.
2. Adjust the belt tension and deflection to specification by turning the adjusting bolt.

Tightening torque:
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)


ALTERNATOR
IDLER
CRANK-SHAFT
COMPRESSOR

05U0UX-081

	Specification	
	New	Used
Tension	491—589 N (50—60 kg, 110—132 lb)	422—491 N (43—50 kg, 95—110 lb)
Deflection when applying moderate pressure 98 N (10 kg, 22 lb)	8.0—9.0mm (0.31—0.35 in)	9.0—10.0mm (0.35—0.39 in)

TECHNICAL DATA

MEASUREMENTS .... TD– 2
ENGINE .... TD– 2
LUBRICATING SYSTEM .... TD– 4
COOLING SYSTEM .... TD– 5
FUEL AND EMISSION CONTROL SYSTEMS TD– 6
ENGINE ELECTRICAL SYSTEM .... TD– 7
CLUTCH .... TD– 7
MANUAL TRANSMISSION .... TD– 8
PROPELLER SHAFT .... TD– 8
FRONT AND REAR AXLES .... TD– 9
STEERING SYSTEM .... TD– 9
BRAKING SYSTEM .... TD– 9
WHEELS AND TIRES TD–10
SUSPENSION TD–10
BODY ELECTRICAL SYSTEM TD–11
HEATER AND AIR CONDITIONING SYSTEM TD–12
STANDARD BOLT AND NUT TIGHTENING TORQUE TD–12

05UTDX-001

A. MEASUREMENTS

Item		Measurements
Overall length mm (in)		3,948 (155.4)
Overall width mm (in)		1,676 (65.9)
Overall height mm (in)		1,224 (48.2)
Wheelbase mm (in)		2,266 (89.2)
Tread	Front mm (in)	1,410 (55.5)
	Rear mm (in)	1,428 (56.2)

B. ENGINE

Item		Engine	B6 DOHC
Type			Gasoline, 4-cycle
Cylinder arrangement and number			In-line, 4-cylinders
Combustion chamber			Pentroof
Valve system			DOHC, belt-driven 16 valves
Bore x Stroke mm (in)			78.0 x 83.6 (3.07 x 3.29)
Total piston displacement cc (cu in)			1,597 (97.42)
Compression ratio			9.4
Compression pressure kPa (kg/cm^2, psi)-rpm	Standard		1,324 (13.5, 192)-300
	Minimum		932 (9.5, 135)-300
	Maximum difference between each cylinder		196 (2.0, 28)
Valve timing	IN	Open BTDC	5°
		Close ABDC	51°
	EX	Open BBDC	53°
		Close ATDC	15°
Valve clearance mm (in)		IN	0: Maintenance-free
		EX	0: Maintenance-free
Cylinder head			
Height mm (in)			133.8—134.0 (5.268—5.276)
Distortion mm (in)			0.15 (0.006) max.
Grinding mm (in)			0.20 (0.008) max.
Cylinder head-to-HLA clearance mm (in)		Standard	0.025—0.066 (0.0010—0.0026)
		Maximum	0.18 (0.0071)
Valve and valve guide			
Valve head diameter mm (in)		IN	30.9—31.1 (1.217—1.224)
		EX	26.1—26.3 (1.028—1.035)
Valve head margin thickness mm (in)		IN	1.0 (0.039)
		EX	1.0 (0.039)
Valve face angle		IN	45°
		EX	45°
Valve length mm (in)	IN	Standard	105.29 (4.1452)
		Minimum	104.79 (4.1256)
	EX	Standard	105.39 (4.1492)
		Minimum	104.89 (4.1295)
Valve stem diameter mm (in)		IN	5.970—5.985 (0.2350—0.2356)
		EX	5.965—5.980 (0.2348—0.2354)
Guide inner diameter mm (in)			6.01—6.03 (0.2366—0.2374)
Valve stem-to-guide clearance mm (in)		IN	0.025—0.060 (0.0010—0.0024)
		EX	0.030—0.065 (0.0012—0.0026)
		Maximum	0.20 (0.008)
Guide projection (Height "A") mm (in)		IN	16.8—17.4 (0.661—0.685)
		EX	16.8—17.4 (0.661—0.685)
Valve seat			
Seat angle		IN	45°
		EX	45°

Engine Item			B6 DOHC
Seat contact width mm (in)			0.8—1.4 (0.031—0.055)
Seat sinking mm (in)		Standard	43.5 (1.713)
		Maximum	45.0 (1.772)
Valve spring			
Free length mm (in)	IN	Standard	48.0 (1.890)
		Minimum	47.0 (1.850)
	EX	Standard	48.3 (1.902)
		Minimum	47.3 (1.862)
Out-of-square mm (in)		IN	1.68 (0.0661) max.
		EX	1.69 (0.0665) max.
Setting load/height N (kg, lb)/mm (in)		IN	217—246 (22.1—25.1, 48.6—55.2)/40.0 (1.575)
		EX	174—196 (17.7—20.0, 38.9—44.0)/40.0 (1.575)
Camshaft			
Cam height mm (in)	IN	Standard	40.888 (1.6098)
		Minimum	40.688 (1.6019)
	EX	Standard	40.889 (1.6098)
		Minimum	40.689 (1.6019)
Journal diameter mm (in)		Standard (No.1—No.5)	25.940—25.965 (1.0213—1.0222)
		Out-of-round	0.05 (0.002) max.
Camshaft bearing oil clearance mm (in)		Standard (No.1—No.5)	0.035—0.081 (0.0014—0.0032)
		Maximum	0.15 (0.006)
Camshaft runout mm (in)			0.03 (0.0012) max.
Camshaft end play mm (in)		Standard	0.07—0.19 (0.0028—0.0075)
		Maximum	0.20 (0.008)
Cylinder block			
Height mm (in)			221.5 (8.720)
Distortion mm (in)			0.15 (0.006) max.
Grinding mm (in)			0.20 (0.008) max.
Cylinder bore diameter mm (in)	Standard size		78.006—78.013 (3.0711—3.0714)
	0.25 (0.010) oversize		78.256—78.263 (3.0809—3.0812)
	0.50 (0.020) oversize		78.506—78.513 (3.0908—3.0911)
Cylinder bore taper and out-of-round mm (in)			0.019 (0.0007) max.
Piston			
Piston diameter Measured at 90° to pin bore axis and 16.5mm (0.650 in) below oil ring groove mm (in)	Standard size		77.954—77.974 (3.0690—3.0698)
	0.25 (0.010) oversize		78.211—78.217 (3.0792—3.0794)
	0.50 (0.020) oversize		78.461—78.467 (3.0890—3.0892)
Piston-to-cylinder clearance mm (in)		Standard	0.039—0.052 (0.0015—0.0020)
		Maximum	0.15 (0.006)
Piston ring			
Thickness mm (in)		Top	1.47—1.49 (0.0579—0.0587)
		Second	1.47—1.49 (0.0579—0.0587)
End gap (Measured in cylinder) mm (in)		Top	0.15—0.30 (0.006—0.012)
		Second	0.15—0.30 (0.006—0.012)
		Oil (rail)	0.20—0.70 (0.008—0.028)
		Maximum	1.0 (0.039)
Ring groove width in piston mm (in)		Top	1.52—1.54 (0.0598—0.0606)
		Second	1.52—1.54 (0.0598—0.0606)
		Oil	4.02—4.04 (0.1583—0.1591)
Piston ring-to-ring groove clearance mm (in)		Top	0.03—0.07 (0.0012—0.0028)
		Second	0.03—0.07 (0.0012—0.0028)
		Maximum	0.15 (0.006)
Piston pin			
Diameter mm (in)			19.987—19.993 (0.7869—0.7871)
Piston-to-piston pin clearance mm (in)			−0.005—0.013 (−0.0002—0.0005)
Connecting rod bush-to-piston pin clearance mm (in)			0.010—0.027 (0.0004—0.0011)

Item		Engine	B6 DOHC
Connecting rod and connecting rod bearing			
Length (Center to center) mm (in)			132.85—132.95 (5.230—5.234)
Bending mm (in)			0.075 (0.0030) max./50 (1.97)
Small end bore (Bush inner diameter) mm (in)			20.003—20.014 (0.7875—0.7880)
Big end bore mm (in)			48.000—48.016 (1.8898—1.8904)
Big end width mm (in)			21.838—21.890 (0.8598—0.8618)
Connecting rod side clearance mm (in)		Standard	0.110—0.262 (0.0043—0.0103)
		Maximum	0.30 (0.012)
Crankshaft			
Crankshaft runout mm (in)			0.04 (0.0016) max.
Main journal diameter mm (in)	Standard size	Standard	49.938—49.956 (1.9661—1.9668)
		Minimum	49.904 (1.9647)
	0.25 (0.010) undersize	Standard	49.704—49.708 (1.9568—1.9570)
		Minimum	49.652 (1.9548)
	0.50 (0.020) undersize	Standard	49.454—49.458 (1.9470—1.9472)
		Minimum	49.402 (1.9450)
	0.75 (0.030) undersize	Standard	49.204—49.208 (1.9372—1.9373)
		Minimum	49.152 (1.9351)
Main journal taper and out-of-round mm (in)			0.05 (0.0020) max.
Crankpin diameter mm (in)	Standard size	Standard	44.940—44.956 (1.7693—1.7699)
		Minimum	44.908 (1.7680)
	0.25 (0.010) undersize	Standard	44.690—44.706 (1.7594—1.7601)
		Minimum	44.658 (1.7582)
	0.50 (0.020) undersize	Standard	44.440—44.456 (1.7496—1.7502)
		Minimum	44.408 (1.7483)
	0.75 (0.030) undersize	Standard	44.190—44.206 (1.7398—1.7404)
		Minimum	44.158 (1.7385)
Crankpin taper and out-of-round mm (in)			0.05 (0.0020) max.
Main bearing			
Main journal bearing oil clearance mm (in)		Standard	0.018—0.036 (0.0007—0.0014)
		Maximum	0.10 (0.004)
Available undersize bearing mm (in)			0.25 (0.010), 0.50 (0.020), 0.75 (0.030)
Crankpin bearing			
Crankpin bearing oil clearance mm (in)		Standard	0.028—0.068 (0.0011—0.0027)
		Maximum	0.10 (0.004)
Available undersize bearing mm (in)			0.25 (0.010), 0.50 (0.020), 0.75 (0.030)
Thrust bearing			
Crankshaft end play mm (in)		Standard	0.080—0.282 (0.0031—0.0111)
		Maximum	0.30 (0.012)
Bearing width mm (in)	Standard size		2.500—2.550 (0.0984—0.1004)
	0.25 (0.010) oversize		2.625—2.675 (0.1033—0.1053)
	0.50 (0.020) oversize		2.750—2.800 (0.1083—0.1102)
	0.75 (0.030) oversize		2.875—2.925 (0.1132—0.1152)
Timing belt			
Belt deflection mm (in)/98 N (10 kg, 22 lb)			9.0—11.5 (0.35—0.45)

D. LUBRICATION SYSTEM

Item	Engine	B6 DOHC
Lubricating method		Force-fed
Oil pump		
Type		Trochoid gear
Relief pressure kPa (kg/cm^2, psi)		343—441 (3.5—4.5, 50—64)
Oil pressure kPa (kg/cm^2, psi)	1,000 rpm	196—294 (2.0—3.0, 28—43)
	3,000 rpm	294—392 (3.0—4.0, 43—57)

Item	Engine	B6 DOHC
Inner rotor tooth tip to outer rotor clearance mm (in)	Standard	0.02—0.16 (0.0008—0.0063)
	Maximum	0.20 (0.0079)
Outer rotor to body clearance mm (in)	Standard	0.09—0.18 (0.0035—0.0071)
	Maximum	0.22 (0.0087)
Side clearance mm (in)	Standard	0.03—0.11 (0.0012—0.0043)
	Maximum	0.14 (0.0055)
Oil filter		
Type		Full-flow, paper element
Relief pressure differential kPa (kg/cm², psi)		78—118 (0.8—1.2, 11—17)
Engine oil		
Capacity liters (US qt, Imp qt)	Total (dry engine)	3.6 (3.8, 3.2)
	Oil pan	3.2 (3.4, 2.8)
	Oil filter	0.17 (0.18, 0.15)
Grade		API Service SF or SG
Viscosity number	Above 30°C (86°F)	SAE 40
	0°C—40°C (32°F—104°F)	SAE 30
	−10°C—20°C (14°F—68°F)	SAE 20W-20
	Above −10°C (14°F)	SAE 20W-40 or 20W-50
	−25°C—30°C (−13°F—86°F)	SAE 10W-30
	Above −25°C (−13°F)	SAE 10W-40 or 10W-50
	Below 0°C (32°F)	SAE 5W-30
	Below −20°C (−4°F)	SAE 5W-20

E. COOLING SYSTEM

Item	Engine	B6 DOHC
Cooling method		Water-cooled, forced circulation
Water pump		
Type		Centrifugal, V-belt driven
Impeller diameter	mm (in)	75 (2.95)
Number of impeller blades		6
Speed ratio		1 : 1.05
Water seal type		Unified mechanical seal
Thermostat		
Type		Wax, two-stage
Opening temperature	°C (°F)	Sub: 83.5—86.5 (182—188), Main: 86.5—89.5 (188—193)
Full-open temperature	°C (°F)	100 (212)
Full-open lift	mm (in)	Sub: 1.5 (0.06) min., Main: 8.0 (0.31) min.
Radiator		
Type		Corrugated fin
Cap valve opening pressure	kPa (kg/cm², psi)	74—103 (0.75—1.05, 11—15)
Cooling circuit checking pressure	kPa (kg/cm², psi)	103 (1.05, 15)
Cooling fan		
Type		Electric
Number of blades		5
Outer diameter	mm (in)	320 (12.6)
Switching temperature OFF → ON	°C (°F)	97 (207)
Capacity	W—V	70—12
Current	A	5.3—6.5
Coolant		
Capacity	liters (US qt, Imp qt)	6.0 (6.3, 5.3)

Item / Engine		B6 DOHC		
	Coolant protection	Volume percentage %		Specific gravity at 20°C (68°F)
		Water	Coolant	
Antifreeze solution	Above −16°C (3°F)	65	35	1.054
	Above −26°C (−15°F)	55	45	1.066
	Above −40°C (−40°F)	45	55	1.078

F. FUEL AND EMISSION CONTROL SYSTEMS

Item			Specification
Idle speed rpm			850 ± 50 *
Ignition timing BTDC			10° ± 1° *
Throttle body			
Type			Horizontal draft
Throat diameter mm (in)			55 (2.2)
Dashpot			
Adjustment speed rpm			2,500 ± 150
Airflow meter			
Resistance Ω	E_2 ↔ V_S	Fully closed	200—600
		Fully open	20—1,000
	E_2 ↔ V_C		200—400
	E_2 ↔ TH_{AA} (Intake air thermosensor)	−20°C (−4°F)	13,600—18,400
		20°C (68°F)	2,210—26,90
		60°C (140°F)	493—667
	E_1 ↔ F_C	Fully closed	∞
		Fully open	0
Fuel pump			
Type			Impeller (in-tank)
Output pressure kPa (kg/cm^2, psi)			441—589 (4.5—6.0, 64—85)
Fuel filter			
Type	Low-pressure side		Nylon element
	High-pressure side		Paper element
Pressure regulator			
Type			Diaphragm
Regulating pressure kPa (kg/cm^2, psi)			265—314 (2.7—3.2, 38—46)
Injector			
Type			High-ohmic
Type of drive			Voltage
Resistance Ω			12—16 (at 20°C, 68°F)
ISC valve (Solenoid valve [Idle speed control])			
Solenoid resistance Ω			11—13 (at 20°C, 68°F)
Circuit opening relay			
Resistance Ω		STA — E_1	21—43
		B — F_C	109—226
		B — F_P	∞
Solenoid valve (Purge control)			
Solenoid resistance Ω			23—27 (at 20°C, 68°F)
Crank angle sensor			
Type			Optical pickup
Water thermosensor			
Resistance kΩ		−20°C (−4°F)	14.6—17.8
		20°C (68°F)	2.2—2.7
		80°C (176°F)	0.29—0.35
Air valve			
Opening temperature °C (°F)			Below 40 (104)
Fuel tank			
Capacity liters (US gal, Imp gal)			45 (11.9, 9.9)

*....with system selector (49 B019 9A0) test switch at SELF TEST

Item		Specification
Air cleaner		
Element type		Oil permeated
Accelerator cable		
Free play	mm (in)	1—3 (0.039—0.118)
Fuel		
Specification		Unleaded regular (RON 87 or higher)

G. ENGINE ELECTRICAL SYSTEM

Item \ Engine model				B6 DOHC
Battery	Voltage	V		12, Negative ground
	Type and capacity (5-hour rate)			S46A24L(S) (32Ah) Maintenance-free
Dark current *		mA		20.0
Alternator	Type			A.C.
	Output	V-A		12-60
	Regulator type			Transistorized (built-in IC regulator)
	Regulated voltage			14.1—14.7
	Brush length	mm (in)	Standard	21.5 (0.85)
			Minimum	8 (0.31)
	Drive belt tension	mm (in)	New	8—9 (0.31—0.35)
			Used	9—10 (0.35—0.39)
Starter	Type			Conventional
	Output	V-kW		12-0.95 (Others)
	Brush length	mm (in)	Standard	17.0 (0.67)
			Minimum	11.5 (0.45)
Ignition system	Type			Electronic spark advance (ESA)
	Spark advance control			Engine control unit controls sparks advance
Ignition timing		BTDC		10° ± 1° (Test connector grounded)
Ignition coil	Type			Molded
	Primary coil winding	kΩ		0.78—0.94
	Secondary coil winding	kΩ		11.2—15.2
Spark plug	Type			NGK: BKR5E-11 BKR6E-11 BKR7E-11 NIPPON DENSO: K16PR-U11 K20PR-U11 K22PR-U11
	Plug gap	mm (in)		1.0—1.1 (0.039—0.043)
	Firing order			1—3—4—2

* Dark current is the constant flow of current while the ignition switch is OFF.
(i.e. engine control unit, audio etc.)

H. CLUTCH

Item \ Engine model			B6 DOHC
Clutch control			Hydraulic
Clutch pedal			
Type			Suspended
Pedal ratio			6.13
Full stroke	mm (in)		120 (4.72)
Height (with carpet)	mm (in)		175—185 (6.89—7.28)
Free play	mm (in)		0.6—3.1 (0.02—0.12)
Distance to carpet when clutch fully disengaged	mm (in)	Minimum	68 (2.68)
Flywheel			
Runout limit	mm (in)		0.2 (0.008)
Clutch disc			
Type			Single dry plate

Item	Engine model	B6 DOHC
Runout limit mm (in)		0.7 (0.028)
Wear limit mm (in)		0.3 (0.012) from rivet head
Outer diameter mm (in)		200 (7.87)
Inner diameter mm (in)		130 (5.12)
Facing thickness mm (in)	Flywheel side	3.5 (0.14)
	Pressure plate side	3.5 (0.14)
Clutch cover		
Type		Diaphragm spring
Set load N (kg, lb)		4,022 (410, 902)

J. MANUAL TRANSMISSION

Item	Transmission model		M-type (M5M-D)
Gear ratio	1st		3.136
	2nd		1.888
	3rd		1.330
	4th		1.000
	5th		0.814
	Reverse		3.758
Oil capacity liters (US qt, Imp qt)			2.0 (2.1, 1.8)
Mainshaft	Runout mm (in)	Maximun	0.03 (0.0012)
	Clearance between mainshaft and gear (or bush) mm (in)	Wear limit	0.15 (0.006)
Reverse idle gear	Clearance between reverse idle gear bushing and shaft mm (in)	Wear limit	0.15 (0.006)
Shift fork and rod	Clearance between shift fork and clutch sleeve mm (in)	Wear limit	0.5 (0.020)
	Clearance between shift rod gate and control lever mm (in)	Wear limit	0.8 (0.031)
Synchronizer ring	Clearance between synchronizer ring and side of gear when fitted mm (in)	Standard	1.5 (0.059)
		Wear limit	0.8 (0.031)
Shift rod (5th/Reverse) spring	Free length mm (in)		75 (2.953)
Detent ball spring (1st/2nd)	Free length mm (in)		22.5 (0.886)
Detent ball spring (3rd/4th)	Free length mm (in)		22.5 (0.886)
Detent ball spring (5th/Reverse)	Free length mm (in)		17.0 (0.669)
Lubricant	Above 10°C (50°F)		API Service GL-4 or GL-5 SAE 80W-90
	All seasons		API Service GL-4 or GL-5 SAE 75W-90

L. PROPELLER SHAFT

Item	Specification
Max. permissible run-out mm (in)	0.4 (0.016)

M. FRONT AND REAR AXLES

Item			Transmission model: M5M-D	
Front axle	Type		Double-wishbone	
	Bearing		Angular ball bearing	
	Wheel bearing play mm (in)	Maximum	0.05 (0.002)	
Rear axle	Type		Double-wishbone	
	Bearing		Angular ball bearing	
	Wheel bearing play mm (in)	Maximum	0.05 (0.002)	
Differential	Type		Standard	Viscous L.S.D.
	Reduction gear		Hypoid gear	
	Reduction ratio		4.300	
	Differential gear		Straight-bevel gear	
	Ring gear size mm (in)		162.16 (6.38)	
	Oil	Grade	API service GL-5	
		Viscosity	Above −18°C (0°F): SAE 90 Below −18°C (0°F): SAE 80W	
		Capacity liters (Us qt, Imp qt)	0.65 (0.69, 0.57)	
	Drive pinion preload (without oil seal) N·m (cm-kg, in-lb)		0.3—0.7 (3—7, 2.6—6.1)	
	Backlash mm (in)	Side gear and pinion gear	0—0.1 (0—0.004)	
		Final gear	0.09—0.11 (0.0035—0.0043)	
	Length (Pilot section to pilot section) mm (in)		$150.20^{+0}_{-0.72}$ ($5.913^{+0}_{-0.028}$)	

Viscous L.S.D.: Viscous Limited Slip Differential

N. STEERING SYSTEM

Item / Type	Manual steering	Power steering
Steering wheel		
Outer diameter mm (in)	370 (14.6)	
Free play mm (in)	0—30 (0—1.18)	
Wheel effort N (kg, lb)	4.9—29.4 (0.5—3.0, 1.1—6.6)	23.5—35.3 (2.4—3.6, 5.3—8.0)
Lock-to-lock turns	3.36	2.8
Steering Shaft		
Shaft type	Collapsible, non-tilt	
Joint type	2-cross joint	
Power steering system		
Power assist type		Engine speed sensing
Gear type		Rack-and-pinion
Gear ratio		∞ (infinite)
Rack stroke mm (in)		121.0 (4.76)
Power steering fluid		ATF DEXRON-II or M-III
Fluid capacity liter (Us qt, Imp qt)		0.8 (0.85, 0.70)
Fluid pressure kPa (kg/cm², psi)		7,603—8,339 (77.5—85.0, 1,102—1,209)

P. BRAKING SYSTEM

Item		Specifications
Brake pedal	Height (with carpet) mm (in)	171—181 (6.73—7.13)
	Free play mm (in)	4—7 (0.16—0.28)
	Reserve travel mm (in) (without carpet, clearance when pedal is depressed at 589 N (60 kg, 132 lb))	95 (3.74)
Master cylinder	Type	Tandem
	Bore mm (in)	22.22 (0.87)
	Fluid type	SAEJ1703 or FMVSS116, DOT-3

Item			Specifications
Front brake (Disc)	Type		Disc
	Thickness of pad mm (in)	Standard	9.5 (0.37)
		Limit	1.0 (0.04)
	Thickness of disc plate mm (in)	Standard	18.0 (0.71)
		Limit	16.0 (0.63)
	Disc plate runout mm (in)		0.1 (0.004) max.
	Wheel cylinder bore mm (in)		51.1 (2.01)
Rear brake (Disc)	Type		DISC
	Thickness of pad mm (in)	Standard	8.0 (0.31)
		Limit	1.0 (0.04)
	Thickness of disc plate mm (in)	Standard	9 (0.35)
		Limit	7 (0.28)
	Wheel cylinder bore mm (in)		31.75 (1.25)
Parking brake	Lever notches [Pulled at 98 N (10 kg, 22 lb)]		5—7
Power brake unit	Type		Single diaphragm
	Diameter mm (in)		214 (8.0)
	Push rod-to-piston clearance mm (in)		When vacuum applied to the unit is approx. 500 mmHg (19.7 inHg) 0.1—0.3mm (0.004—0.012 in)
	Fluid pressure per treading force kPa (kg/cm², psi)/N (kg, lb)		1,079—1,177 (11—12, 156—171)/196 (20, 44) at 0 mmHg (0 inHg) min. 5,199—5,494 (53—56, 754—796)/196 (20, 44) at 500 mmHg (19.7 inHg) min.
Rear wheel hydraulic control system	Type		PBV
	Bend portion (Rear brake pressure) kPa (kg/cm², psi)		2,943 (30, 427)

Q. WHEELS AND TIRES

Item / Type			Standard	Temporary spare
Wheel	Size		14 x 5 1/2-JJ	14 x 4T
	Offset mm (in)		45 (1.77)	
	Pitch circle diameter mm (in)		100 (3.94)	
	Material		Aluminum alloy	Steel
Tire	Size		P185/60R14 82H	T115/70D14
	Air pressure kPa (kg/cm², psi)		177 (1.8, 26)	412 (4.2, 60)
Wheel and tire	Runout limit mm (in)	Horizontal	2.0 (0.079)	
		Vertical	1.5 (0.059)	
	Maximum unbalance (at rim edge) g (oz)		10 (0.35)	

R. SUSPENSION

Item		Specifications
Front suspension		
Type		Double-wishbone
Stabilizer	Type	Torsion bar
	Diameter mm (in)	19 (0.75)
Shock absorbers		Cylindrical double-acting, low-pressure gas charged
Coil springs	Identification color	Red
	Wire diameter mm (in)	10.8 (0.43)
	Coil inner diameter mm (in)	83 (3.27)
	Free length mm (in)	282.5 (11.12)
	Coil number	5.91

Item			Specifications
Rear suspension			
Type			Double-wishbone
Stabilizer	Type		Torsion bar
	Diameter	mm (in)	12 (0.47)
Shock absorbers			Cylindrical double-acting, low-pressure gas charged
Coil springs	Identification color		Blue
	Wire diameter	mm (in)	10.1 (0.40)
	Coil inner diameter	mm (in)	83 (3.27)
	Free length	mm (in)	339.5 (13.37)
	Coil number		7.68
Wheel alignment			
Front wheel alignment (Unladed*1)	Total toe-in	mm (in)	3 ± 3 (0.12 ± 0.12)
		degree	0°18' ± 18'
	Maximum steering angle	Inner	37°23' ± 2°
		Outer	32°32' ± 2°
	Camber angle		0°24' ± 45'*2
	Caster angle		4°30' ± 45'
	King pin angle		11°20'
Rear wheel alignment (Unladed*1)	Total toe-in	mm (in)	3 ± 3 (0.12 ± 0.12)
		degree	0°18' ± 18'
	Camber angle		−0°43' ± 30'

*1 Fuel tank full; radiator coolant and engine oil at specified level, and spare tire, jack, and tools in designated position.
*2 Difference between left and right must not exceed 1°.

T. BODY ELECTRICAL SYSTEM

Item	Wattage (Bulb trade number)
Instrument cluster lamps	
Beam	3.4
Turn (LH and RH)	3.4
Illumination	3.4
Engine check	1.4
Brake	1.4
Charge	1.4
Belts	1.4
Air bag	1.4
Retractor	1.4
Exterior lights	
Head lights	60/40
Front turn signal/parking lights	27/8 (1157 NA)
Front side marker lights	3.8 (194)
License plate lights	7.5
Rear turn signal lights	27 (1156)
Rear side marker lights	3.8 (194)
Stop/taillights	27/8 (1157)
Back-up lights	27 (1156)
High-mount stoplight	18.4 (921)
Interior lamps	5
Illumination lamps	
Ash tray	3.4
Heater control switch panel	1.4
A/C switch	1.4
Hazard switch	1.4
Cruise control main switch	1.4

U. HEATER AND AIR CONDITIONING SYSTEM

Item		Specifications
Refrigerant amount	g (oz)	800 (28.24)
Compressor oil amount	cc (cc in)	80—100 (4.88—6.1)
Refrigerant normal pressure	kPa (kg/cm^2, psi)	Low pressure: 147—294 (1.5—3.0, 21—43) High pressure: 1,177—1,619 (12.0—16.5, 171—235)

STANDARD BOLT AND NUT TIGHTENING TORQUE

Diameter mm (in)	Pitch mm (in)	4T			6T			8T		
		N·m	m-kg	ft-lb	N·m	m-kg	ft-lb	N·m	m-kg	ft-lb
6 (0.236)	1 (0.039)	4.2—6.2	0.43—0.63	3.1—4.6	6.9—9.8	0.7—1.0	5.0—7.2	7.8—11.8	0.8—1.2	5.8—8.8
8 (0.315)	1.25 (0.049)	9.8—14.7	1.0—1.5	7.2—10.8	16—23	1.6—2.3	12—17	18—26	1.8—2.7	13—20
10 (0.394)	1.25 (0.049)	20—28	2.0—2.9	14—21	31—46	3.2—4.7	23—34	36—54	3.7—5.5	27—40
12 (0.472)	1.5 (0.059)	34—50	3.5—5.1	25—37	55—80	5.6—8.2	41—59	63—93	6.4—9.5	46—69
14 (0.551)	1.5 (0.059)	—	—	—	75—103	7.7—10.5	56—76	102—137	10—14	75—101
16 (0.630)	1.5 (0.059)	—	—	—	116—157	12—16	85—116	156—211	16—22	115—156
18 (0.709)	1.5 (0.059)	—	—	—	167—225	17—23	123—166	221—299	23—31	163—221
20 (0.787)	1.5 (0.059)	—	—	—	231—314	24—32	171—231	308—417	31—43	227—307
22 (0.866)	1.5 (0.059)	—	—	—	314—423	32—43	231—312	417—564	43—58	307—416
24 (0.945)	1.5 (0.059)	—	—	—	475—546	41—56	298—403	536—726	55—74	396—536

SPECIAL TOOLS

GENERAL INFORMATION .... ST- 2
ENGINE... ST- 3
CLUTCH AND MANUAL TRANSMISSION ST- 4
DIFFERENTIAL .... ST- 5
FRONT AND REAR AXLES .... ST- 6
STEERING SYSTEM .... ST- 6
BRAKING SYSTEM............................... ST- 7
FRONT AND REAR SUSPENSIONS........ ST- 7
CHECKERS AND OTHER EQUIPMENT ... ST- 8

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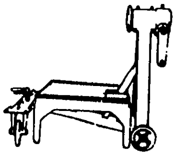
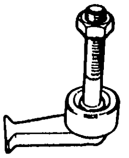
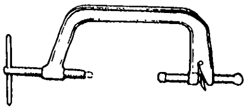
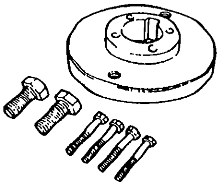
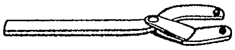
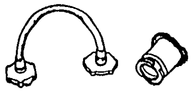
GENERAL INFORMATION

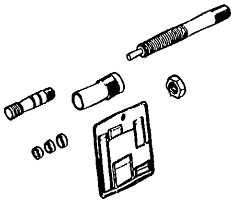
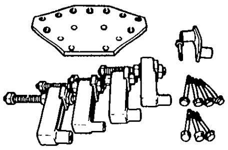
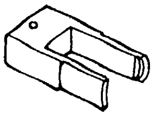
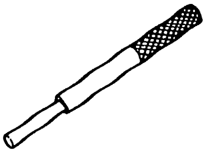
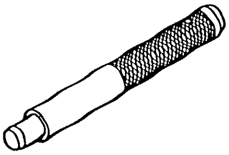
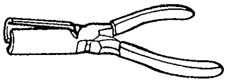
The letters A and B in the priority column indicate the degree of importance of each tool.
A.....Indispensable
The tools ranked A in this list are indispensable for performing operations satisfactorily, easily, safely, and efficiently. It is, therefore, advisable that all service shops have these tools.
B.....Selective
The tools ranked B are not as necessary as tools ranked A, but all service shops should have them to perform repairs more easily and efficiently.

Note
When ordering tool sets that consist of several tools, check the List in the Parts Catalogue to make sure that some tools are not duplicated in other sets you may already have. If they are, instead of ordering the set, order only those new tools that are needed.

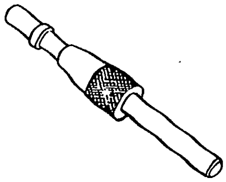
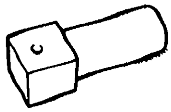
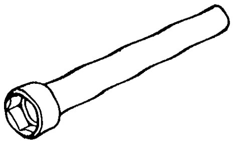
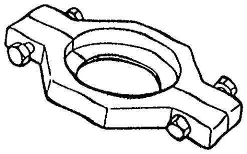
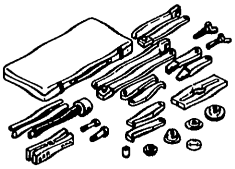
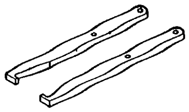
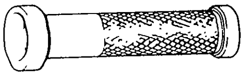
05USTX-002

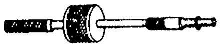
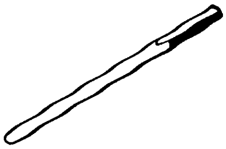
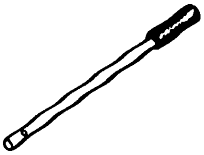
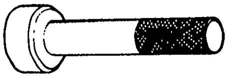
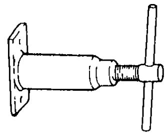
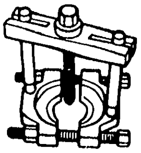
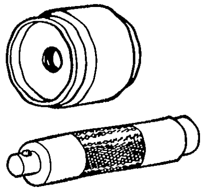
ENGINE

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0107 680A Engine stand	A	
49 E301 060 Brake, ring gear	A	
49 0636 100A Arm, valve spring lifter	A	
49 B011 102 Lock tool, crankshaft	A	
49 S120 710 Holder, coupling flange	A	
49 9200 145 Adapter set, radiater cap tester	A	

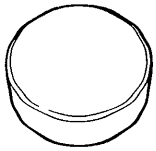
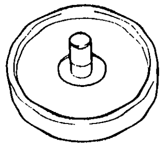
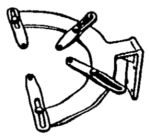
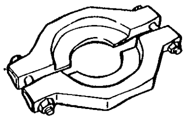
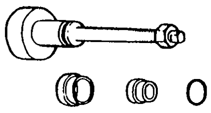
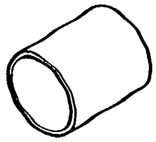
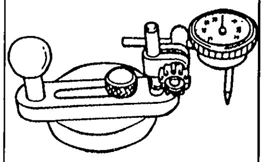
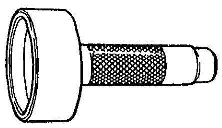
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 L012 0A0 Installer set, valve seal & valve guide	A	
49 L010 1A0 Hanger set, engine stand	A	
49 B012 006 Pivot, valve spring lifter	A	
49 B012 005 Remover & installer, valve guide	A	
49 0221 061A Remover & installer, piston pin	B	
49 S120 170 Remover, valve seal	A	

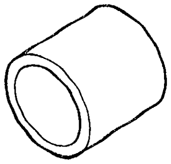
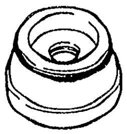
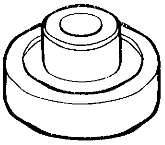
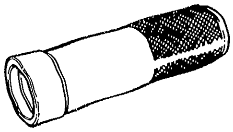
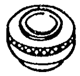
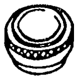
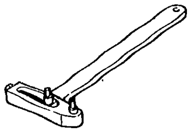
CLUTCH AND MANUAL TRANSMISSION

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 SE01 310 Centering tool, clutch disc	A	
49 0259 440 Holder, mainshaft	A	
49 1243 465A Wrench, main-shaft lock nut	A	
49 0636 145 Puller, fan pulley boss	A	
49 0839 425C Puller set, bearing	A	
49 H017 101 Hook	A	
49 0180 321A Installer, main drive gear bearing	A	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 1285 071 Puller, bearing	A	
49 0187 451A Guide, interlock pin assembly	B	
49 0862 350 Guide, shift fork assembly	B	
49 0500 330 Installer, bearing	A	
49 0305 430 Pusher, main drive shaft	A	
49 0710 520 Puller, bearing	A	
49 B025 0A0 Installer, dust seal	A	

DIFFERENTIAL

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 N027 001 Gauge block **NEW SST**	A	
49 N034 213 Installer, rubber bushing **NEW SST**	A	
49 M005 561 Hanger, differential carrier	A	
49 H027 002 Remover, bearing	A	
49 8531 565 Pinion model	A	
49 H027 001 Collar	A	
49 0727 570 Gauge body, pinion height	A	
49 B001 795 Installer, oil seal	A	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 U027 003 Installer, oil seal	A	
49 F027 005 Attachment ϕ62	A	
49 H033 101 Remover, bearing	A	
49 F401 331 Body	A	
49 F401 336B Attachment B	A	
49 F401 337A Attachment C	A	
49 0259 720 Adjustment wrench, side bearing	B	
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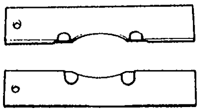
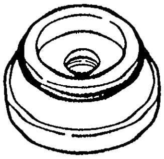
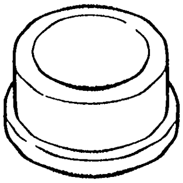
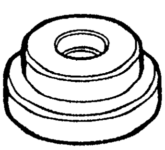
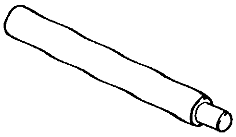
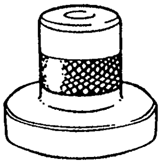
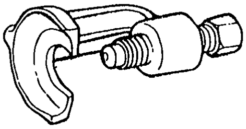
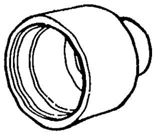
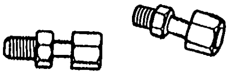
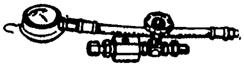
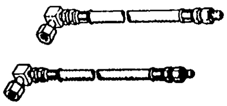
FRONT AND REAR AXLES

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 F026 103 Puller, wheel hub	A	
49 F027 007 Attachment $\phi72$	A	
49 F027 009 Attachment $\phi68$ & $\phi77$	A	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 G030 727 Attachment A	A	
49 G033 102 Handle	A	
49 V001 795 Installer, oil seal	A	

STEERING SYSTEM

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0118 850C Puller, ball joint	B	
49 1243 785 Installer, dust boot	A	
49 B032 302 Adapter, power steering gauge	A	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 1232 670A Gauge set, power steering	A	
49 H002 671 Adapter, power steering gauge	A	
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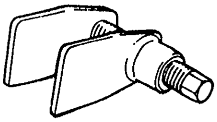
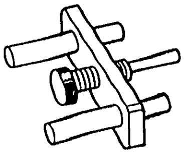
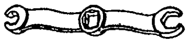
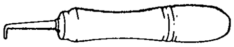
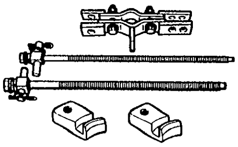
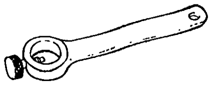
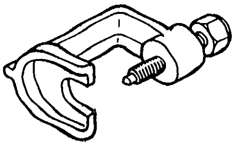
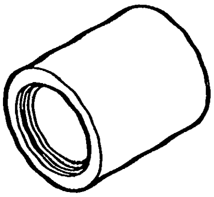
BRAKING SYSTEM

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0221 600C Expand tool, disc brake	A	
49 F043 001 Adjust gauge	A	

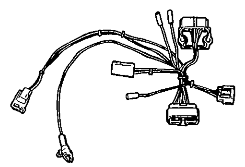
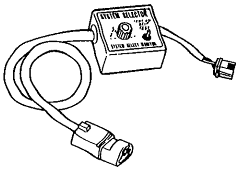
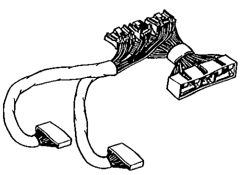
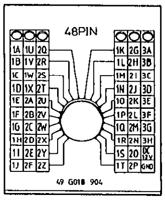
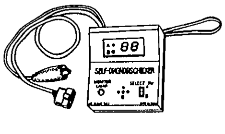
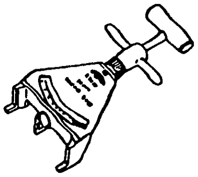
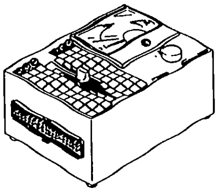
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0259 770B Wrench, flare nut	A	
49 0208 701A Air out tool, boot	A	

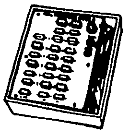
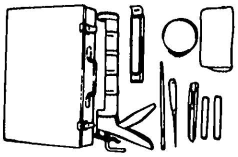
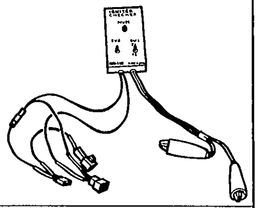
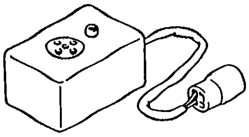
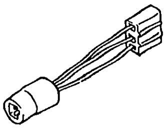
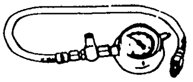
FRONT AND REAR SUSPENSIONS

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 G034 1A0 Compressor, coil spring	B	
49 0180 510B Attachment, preload measuring	B	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0727 575 Puller, ball joint	B	
49 H028 301 Installer, dust boot	A	

CHECKERS AND OTHER EQUIPMENT

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 N018 001 Adapter harness (Igniter checker) **NEW SST**	A	
49 B019 9A0 System Selector **NEW SST**	A	
49 G018 903 Adapter harness (Engine Signal Monitor) **NEW SST**	A	
49 G018 904 Sheet (Engine Signal Monitor) **NEW SST**	A	
49 H018 9A1 Self-Diagnosis Checker	A	
49 9200 020 Tension gauge, V-ribbed belt	B	
49 9200 162 Engine Signal Monitor	A	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0839 285 Checker, fuel and thermometer	A	
49 0305 870A Tool set, window	A	
49 F018 002 Igniter Checker	A	
49 9200 165 Tester, throttle sensor	A	
49 9200 166 Adapter, throttle sensor	A	
49 0187 280 Gauge, oil pressure	B	
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WIRING DIAGRAM

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WINDSHIELD WIPER & WASHER	D-1
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WIRING COLOR CODE

Color	Code	Color	Code
Blue	L	Natural	N
Black	B	Orange	O
Brown	BR	Pink	P
Dark Blue	DL	Red	R
Dark Green	DG	Purple	PU
Green	G	Tan	T
Gray	GY	White	W
Light Blue	LB	Yellow	Y
Light Green	LG	Violet	V

GENERAL INFORMATION

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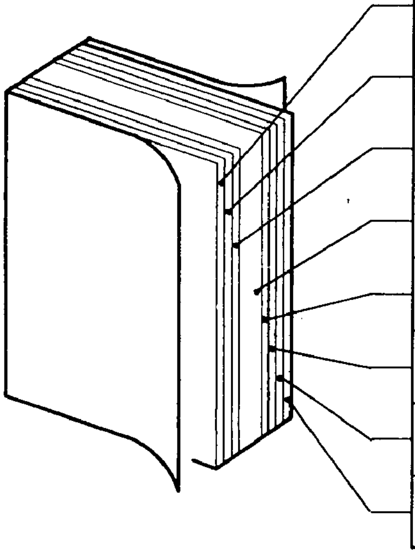
Z-GI-2 Contents of and Using Electrical Wiring Diagrams

Contents of wiring diagrams

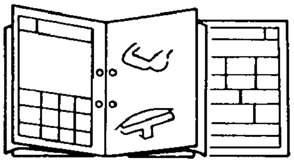
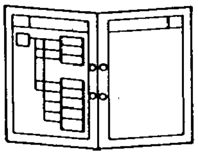
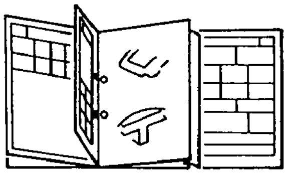
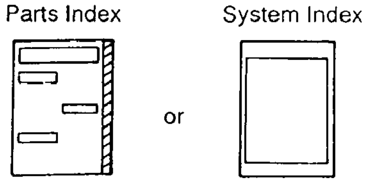
- This document is composed of the 8 groups shown below. The main components are summarized in the components location diagram at the end of the document.



GI	**General information**	Tells how to: use and read wiring diagrams, use test equipment, check harnesses and connectors, and locate trouble spots.
Y	**Ground points**	Ground routes from and to the battery.
W	**Electrical wiring schematic**	Shows main and other fuses for each system.
A~V	**Circuit diagrams for individual systems**	Shows circuit and connector diagrams, component and connector location diagrams.
X	**Common connectors**	Shows connectors common throughout system.
JB	**Joint box diagrams**	Shows internal circuits and connectors.
PL	**Parts location**	Shows location of major electrical parts.
PI	**Index**	Gives page number of circuit diagram for each component.

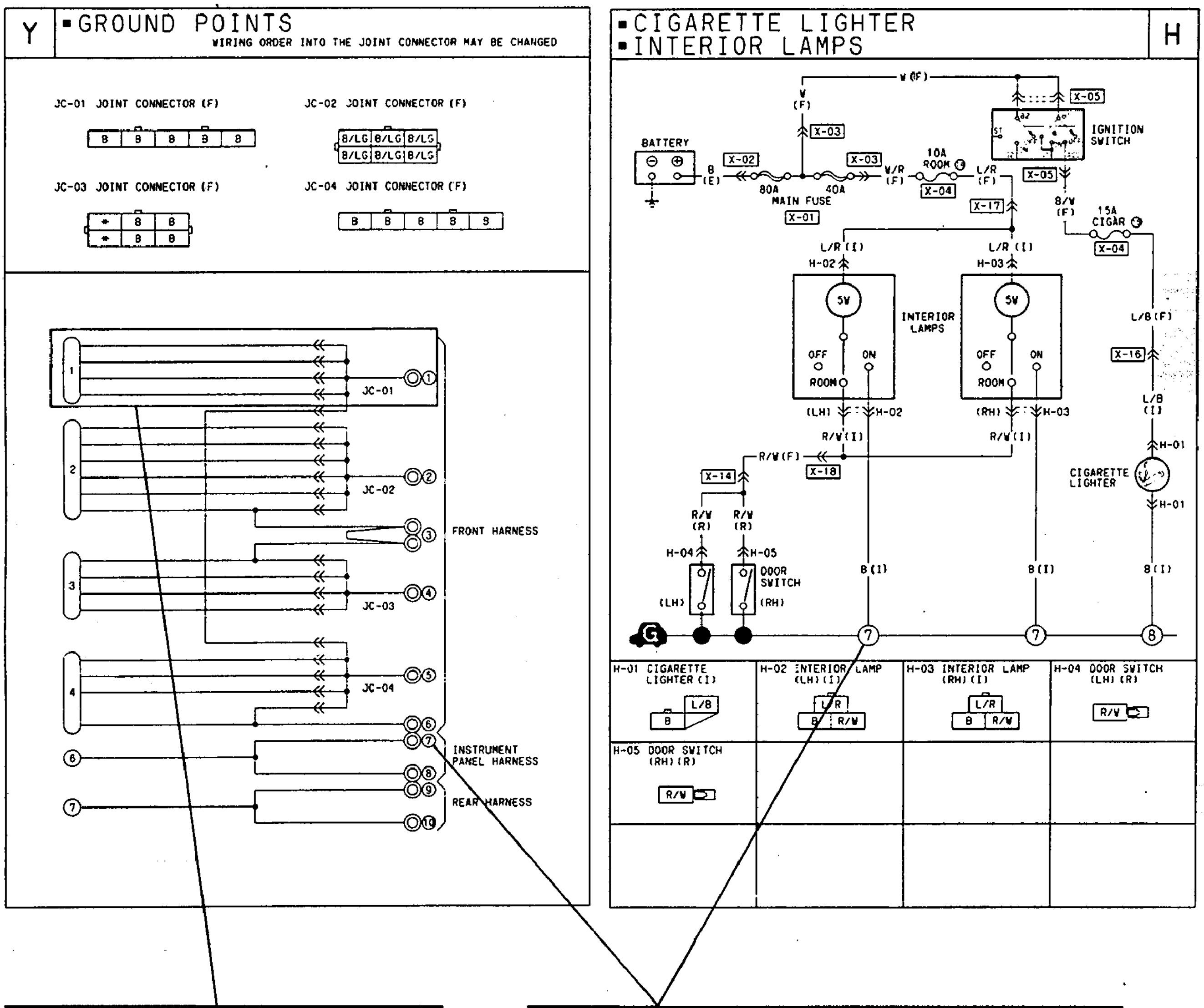
Using wiring diagrams

- The use of the wiring diagram depends on its intended application.

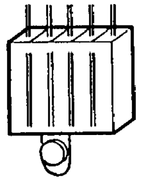
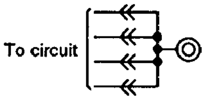
Application	Use	Application	Use
For checking circuits of individual systems	 Open to page with circuit diagram and harness routing to be used and fold out common connector diagram or joint box diagram.	For checking fuse connections	 Open to electrical wiring schematic.
For checking ground circuit of individual systems	 Open to page with ground point diagram and fold out common connector diagram or joint box diagram.	For locating page numbers of systems and components	 Open to parts index or system index.

Ground points

- This shows ground points of the harness.


Y
GROUND POINTS
WIRING ORDER INTO THE JOINT CONNECTOR MAY BE CHANGED
JC-01 JOINT CONNECTOR (F)
JC-02 JOINT CONNECTOR (F)
JC-03 JOINT CONNECTOR (F)
JC-04 JOINT CONNECTOR (F)
B
B/LG
JC-01
JC-02
JC-03
JC-04
1
2
3
4
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
FRONT HARNESS
INSTRUMENT PANEL HARNESS
REAR HARNESS
CIGARETTE LIGHTER
INTERIOR LAMPS
H
BATTERY
B (E)
X-01
X-02
X-03
80A
40A
MAIN FUSE
W (F)
W/R (F)
10A ROOM
X-04
L/R (F)
X-05
IGNITION SWITCH
X-17
B/W (F)
15A CIGAR
L/R (I)
H-02
H-03
5W
INTERIOR LAMPS
OFF
ON
ROOM
(LH)
(RH)
R/W (I)
R/W (F)
X-18
X-14
R/W (R)
H-04
H-05
DOOR SWITCH
L/B (F)
X-16
L/B (I)
H-01
CIGARETTE LIGHTER
B (I)
G
7
7
8
H-01 CIGARETTE LIGHTER (I)
H-02 INTERIOR LAMP (LH) (I)
H-03 INTERIOR LAMP (RH) (I)
H-04 DOOR SWITCH (LH) (R)
H-05 DOOR SWITCH (RH) (R)
L/B
L/R
R/W

Ground indication

On car	Indication
	

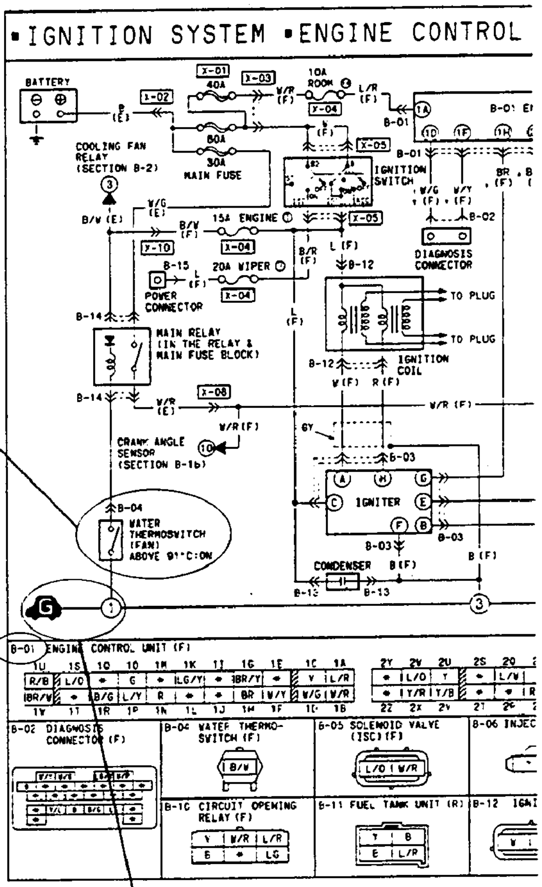
On circuit diagrams and ground points

The ground connection numbers in system circuit diagrams correspond to those in the ground point diagram.

System circuit diagram/connector diagram

- These show the circuits for each system, from the power supply to the ground. The power supply side is at the top of the page and the ground side is at the bottom. The diagrams describe circuits with the ignition switch OFF.

  Below is an explanation of the various points in the diagram.


•IGNITION SYSTEM •ENGINE CONTROL
BATTERY
40A
10A ROOM
COOLING FAN RELAY (SECTION B-2)
80A
30A MAIN FUSE
IGNITION SWITCH
15A ENGINE
20A WIPER
POWER CONNECTOR
MAIN RELAY (IN THE RELAY & MAIN FUSE BLOCK)
DIAGNOSIS CONNECTOR
TO PLUG
IGNITION COIL
CRANK ANGLE SENSOR (SECTION B-1b)
B-04
WATER THERMOSWITCH (FAN) ABOVE 91°C:ON
IGNITER
CONDENSER
B-01 ENGINE CONTROL UNIT (F)
B-02 DIAGNOSIS CONNECTOR (F)
B-04 WATER THERMO-SWITCH (F)
B-05 SOLENOID VALVE (ISC) (F)
B-06 INJEC
B-10 CIRCUIT OPENING RELAY (F)
B-11 FUEL TANK UNIT (R)
B-12 IGNI

Indicates operating conditions for switches, etc.

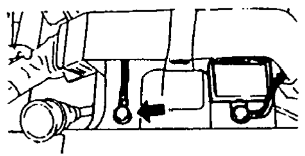
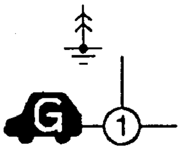
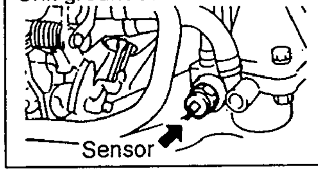
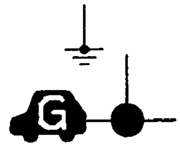
Connector code.

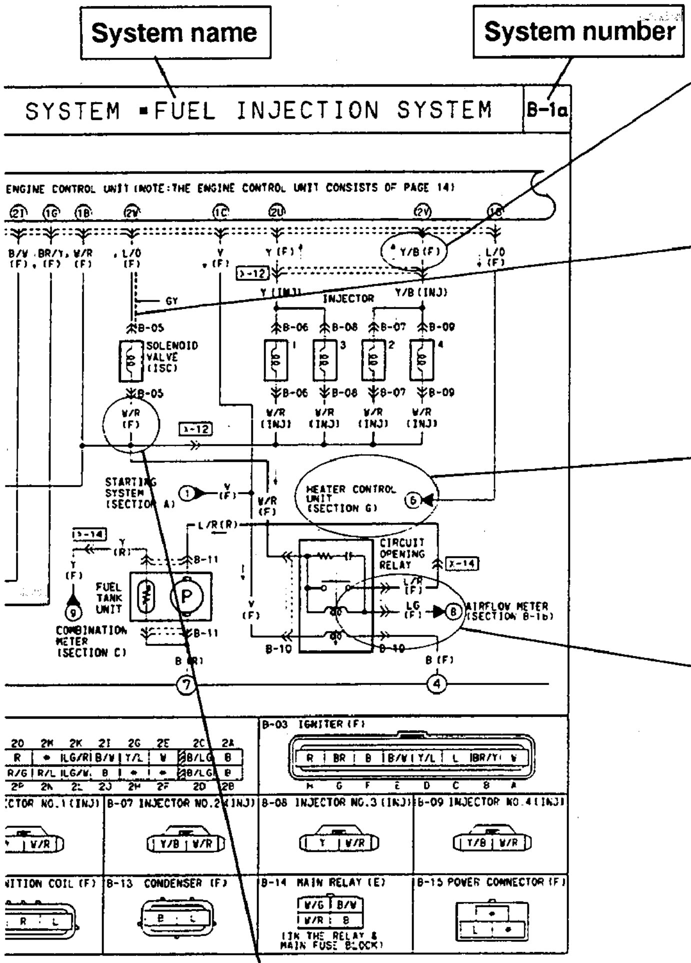
The prefix letter indicates the system in which the connector is used.

JB: Joint box connections
X : Common connectors
A : Charging system/starting system connectors
B : Engine control system connectors
C : Gauge control system connectors
D : Wiper system connectors
E : Lighting system connectors
F : Signal system connectors
G : Air conditioning system connectors

Ground numbers

A harness ground is represented differently than a physical ground of a unit.

Types of ground	Symbol
Harness grounded 	
Unit grounded 	


System name
System number
SYSTEM ■FUEL INJECTION SYSTEM
B-1a
ENGINE CONTROL UNIT (NOTE:THE ENGINE CONTROL UNIT CONSISTS OF PAGE 14)
2I 1G 1B 2W 1C 2U 2V 1E
B/W (F)
BR/Y (F)
W/R (F)
L/O (F)
Y (F)
Y (F)
*Y/B (F)
L/O (F)
X-12
GY
Y (INJ)
INJECTOR
Y/B (INJ)
B-05
SOLENOID VALVE (ISC)
B-06 B-08 B-07 B-09
1 3 2 4
W/R (INJ)
W/R (F)
X-12
STARTING SYSTEM (SECTION A)
1
Y (F)
W/R (F)
HEATER CONTROL UNIT (SECTION G)
6
L/R (R)
X-14
Y (R)
Y (F)
B-11
FUEL TANK UNIT
P
9
COMBINATION METER (SECTION C)
CIRCUIT OPENING RELAY
X-14
L/R (F)
LG (F)
8
AIRFLOW METER (SECTION B-1b)
B-10
B (R)
B (F)
7
4
B-03 IGNITER (F)
B-07 INJECTOR NO.2 (INJ)
B-08 INJECTOR NO.3 (INJ)
B-09 INJECTOR NO.4 (INJ)
B-13 CONDENSER (F)
B-14 MAIN RELAY (E)
(IN THE RELAY & MAIN FUSE BLOCK)
B-15 POWER CONNECTOR (F)

Current symbol

Current flows in the direction of the arrow.

*Indicates shielded wire.

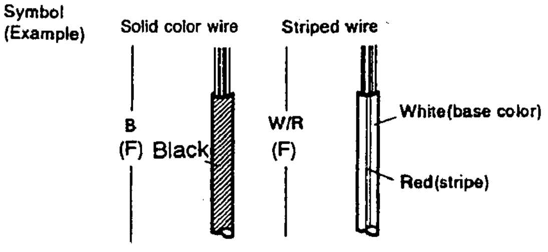
*Shielded wire:
Prevents signal disturbances due to electrical interference.
Wire is covered by a metal meshing for grounding.

The number (e.g. 6), indicates the circuit continues to the related system diagram.

Wire color code (harness symbol)

- Two-color wires are indicated by a Two-letter symbol. The first letter indicates the base color of the wire and the second indicates the color of the stripe.
For example

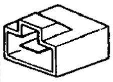
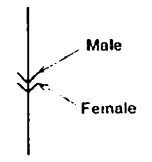
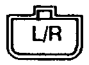
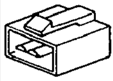
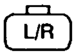
W/R is a white wire with a red strip
BR/Y is a brown wire with a yellow strip


Symbol (Example)
Solid color wire
Striped wire
B
(F) Black
W/R
(F)
White(base color)
Red(stripe)

- The harness symbol is given in the ( ) following the wire color (Refer to GI-7.).

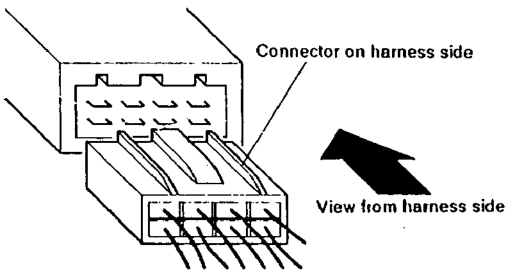
Connector symbols

- Male and female connectors are represented as follows in the circuit and connector diagrams.

		Circuit diagram symbol	Connector diagram symbol
Male		 Male Female	
Female			

- Like connectors are linked by broken lines between the connector symbols.
- Connector diagrams always show connectors on the harness side. The arrow indicates the view from the harness side.

(Example)


Connector on harness side
View from harness side

- Colors for connectors other than those that are off white are given in diagrams.
- Unused terminals are indicated by *.

Routing diagram

- This shows where electrical components are located on the system circuit diagram by lead and connector symbols.
- Specified values are listed beside the routing diagram or on the following page.

Connector symbol

Shows the system that uses the connector.

(Example)

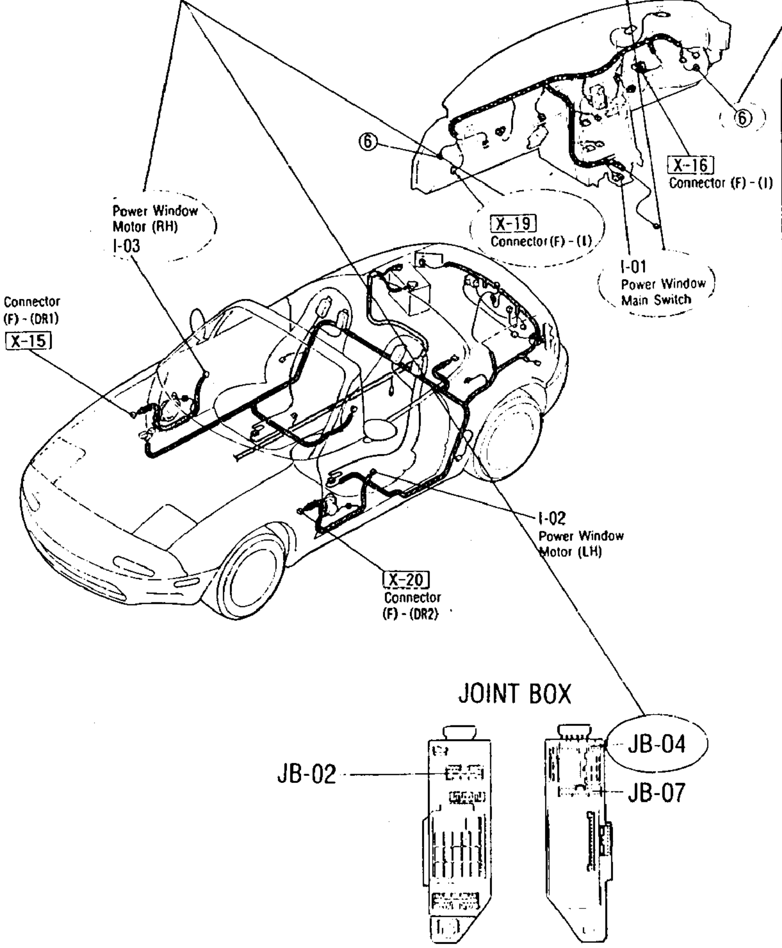
Connector	Symbol
Joint box	JB-04
Common connectors	X-19
System connectors	I-03

Component name

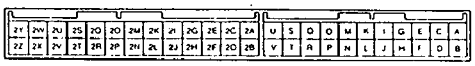
Shows the names of components in routing diagrams.

Ground symbol

Shows the ground in system diagrams.


⑥
⑥
X-16
Connector (F) - (I)
X-19
Connector (F) - (I)
I-01
Power Window Main Switch
Power Window Motor (RH)
I-03
Connector (F) - (DR1)
X-15
I-02
Power Window Motor (LH)
X-20
Connector (F) - (DR2)
JOINT BOX
JB-02
JB-04
JB-07

Engine control unit terminal (unit side)


2Y 2W 2U 2S 2Q 2O 2M 2K 2I 2G 2E 2C 2A U S Q O M K I G E C A
2Z 2X 2V 2T 2R 2P 2N 2L 2J 2H 2F 2D 2B V T R P N L J H F D B

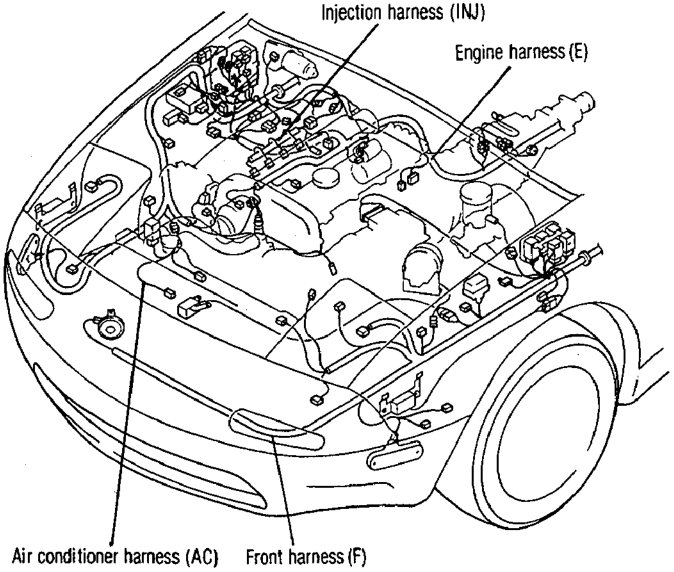
Terminal	Input	Output	Connection to	Test condition	Voltage	Remark
1K	O		Diagnosis Connector	At System Selector test switch "O$_2$ MONITOR"	Approx. 12V	
				At System Selector test switch "SELF-TEST"	Approx. 0V	
1N	O		Throttle sensor (Idle point)	Accelerator pedal released	Approx. 0V	Ignition switch ON
				Accelerator pedal depressed	Approx. 12V	
1O	O		Stoplight switch	Brake pedal released	0V	
				Brake pedal depressed	Approx. 12V	
1P	O		P/S pressure switch	Ingition switch ON	Approx. 12V	
				P/S ON (at idle)	0V	
				P/S OFF (at idle)	Approx. 12V	
1R	O		Fan switch	Fan operating (Engine coolant temperature over 97°C (207°F) or diagnosis connector terminal TFA grounded)	Approx. 0V	
				Fan not operating (idle)	Approx. 12V	
1U	O		Headlight switch	Headlights ON (Tail, parking, low beam or high beam)	Approx. 12V	
				Headlights OFF	Approx. 0V	
1V	O		Neutral or clutch switch	Neutral position or clutch pedal depressed	Approx. 10V	
				Other conditions	Approx. 12V	
2A	–	–	Ground (Injector)	Constant	0V	
2B	–	–	Ground (Output)	Constant	0V	
2C	–	–	Ground (CPU)	Constant	0V	
2D	–	–	Ground (Input)	Constant	0V	
2E	O		Crank angle sensor (Ne signal)	Ignition switch ON	Approx. 0V or 5V	
				Idle	Approx. 12V	
2G	O		Crank angle sensor (G signal)	Ignition switch ON	Approx. 0V or 5V	
				Idle	Approx. 1.5V	
2J	O		Ground	Constant	0V	
2K		O	Airflow meter	Constant	4.5–5.5V	
2L	O		Throttle sensor (Power terminal)	Accelerator pedal released	Approx. 5V	
				Accelerator pedal fully depressed	Approx. 0V	
2N	O		Oxygen sensor	Ignition switch ON	0V	
				Idle (Cold engine)	0V	
				Idle (After warm up)	0–1V	
				Increase engine speed (After warm up)	0.5–1V	
				Deceleration	0–0.4V	
2O	O		Airflow meter	Ignition switch ON	Approx. 3.8V	
				Idle	Approx. 3.3V	
2P	O		Airflow sensor (Intake air thermosensor)	At 20°C (68°F)	Approx. 2.5V	
2Q	O		Water thermosensor	Engine coolant temperature 20°C (68°F)	Approx. 2.5V	
				After warm up	Approx. 0.4V	

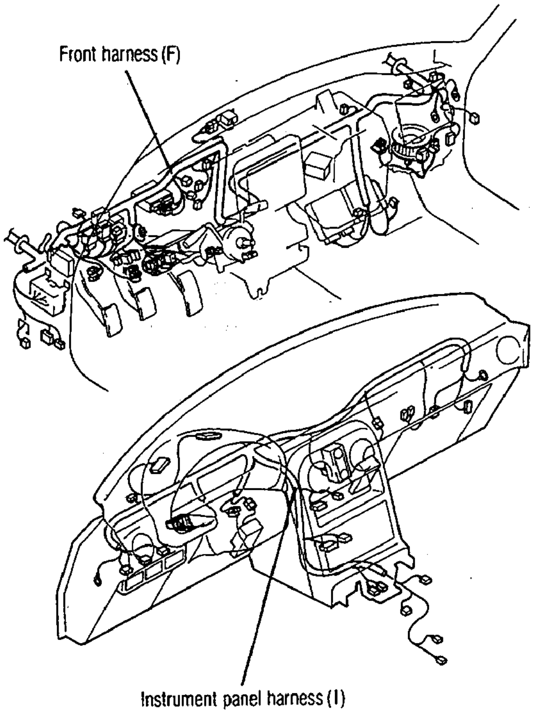
Specified values

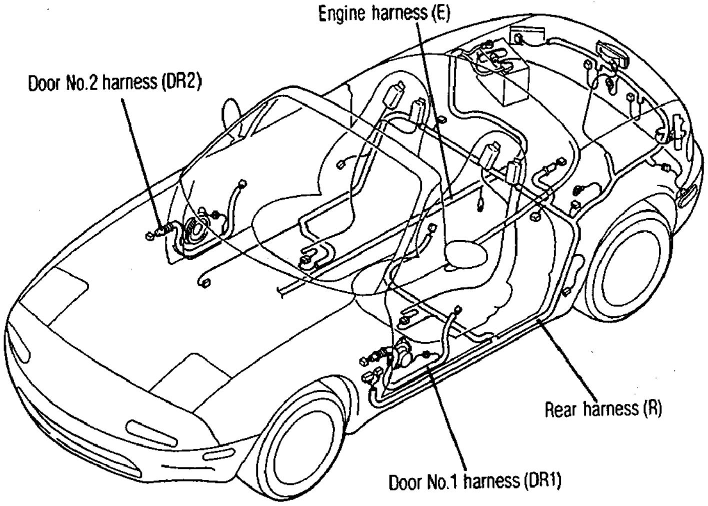
Shows values for determining whether an electrical component is good.

Harness symbols

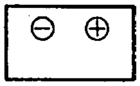
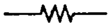
DESCRIPTION OF HARNESS	COLOR	SYMBOL	DESCRIPTION OF HARNESS	SYMBOL
Front harness	▭	(F)	Injection harness	(INJ)
Engine harness	▭	(E)	Air conditioner harness	(AC)
Instrument panel harness	▭	(I)	Door No.1 harness	(DR1)
Rear harness	▭	(R)	Door No.2 harness	(DR2)

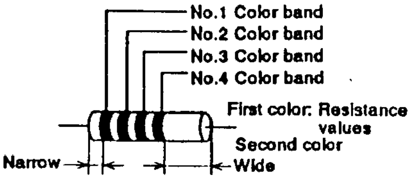

Injection harness (INJ)
Engine harness (E)
Air conditioner harness (AC)
Front harness (F)

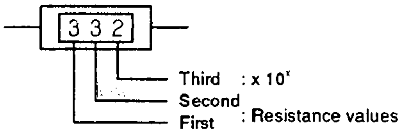

Front harness (F)
Instrument panel harness (I)


Engine harness (E)
Door No.2 harness (DR2)
Rear harness (R)
Door No.1 harness (DR1)

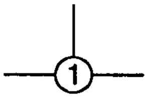
Symbols

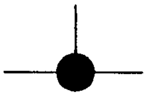
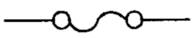
<table>
<tr><th>Symbol</th><th>Meaning</th><th>Symbol</th><th>Meaning</th></tr>
<tr><td>Battery
</td><td>● Generates electricity through chemical reaction
● Supplies direct current to circuits</td><td rowspan="5">Resistance
</td><td rowspan="5">● A resistor with a constant value
● Mainly used to protect electrical components in circuits by maintaining rated voltage

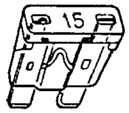
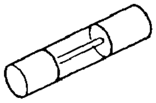
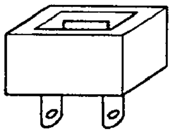
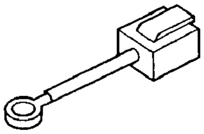
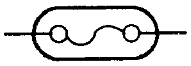
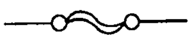
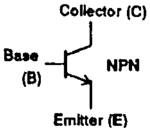
● Reading resistance values
<Colored type>


No.1 Color band
No.2 Color band
No.3 Color band
No.4 Color band
First color: Resistance values
Second color
Narrow
Wide
<table>
<tr><th rowspan="2">Color</th><th>No.1</th><th>No.2</th><th>No.3</th><th>No.4</th></tr>
<tr><th colspan="2">Resistance values</th><th>Multiplier</th><th>Tolerance</th></tr>
<tr><td>Black</td><td>0</td><td>0</td><td>$\times 10^{0}$</td><td></td></tr>
<tr><td>Brown</td><td>1</td><td>1</td><td>$\times 10^{1}$</td><td></td></tr>
<tr><td>Red</td><td>2</td><td>2</td><td>$\times 10^{2}$</td><td></td></tr>
<tr><td>Orange</td><td>3</td><td>3</td><td>$\times 10^{3}$</td><td></td></tr>
<tr><td>Yellow</td><td>4</td><td>4</td><td>$\times 10^{4}$</td><td></td></tr>
<tr><td>Green</td><td>5</td><td>5</td><td>$\times 10^{5}$</td><td></td></tr>
<tr><td>Blue</td><td>6</td><td>6</td><td>$\times 10^{6}$</td><td></td></tr>
<tr><td>Purple</td><td>7</td><td>7</td><td>$\times 10^{7}$</td><td></td></tr>
<tr><td>Grey</td><td>8</td><td>8</td><td>$\times 10^{8}$</td><td></td></tr>
<tr><td>White</td><td>9</td><td>9</td><td>$\times 10^{9}$</td><td></td></tr>
<tr><td>Gold</td><td></td><td></td><td>$\times 10^{-1}$</td><td>±5%</td></tr>
<tr><td>Silver</td><td></td><td></td><td>$\times 10^{-2}$</td><td>±10%</td></tr>
<tr><td></td><td></td><td></td><td></td><td>±20%</td></tr>
</table>
<Numerical type>


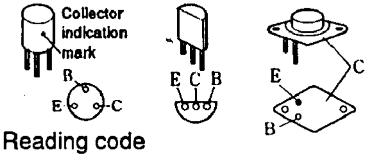
3 3 2
Third : x 10ˣ
Second
First : Resistance values

</td></tr>
<tr><td>Ground (1)
</td><td rowspan="2">● Connecting point to vehicle body or other ground wire where current flows from positive to negative terminal of battery
● Ground (1) indicates a ground point to body through wire harness
● Gound (2) indicates point where component is grounded directly to body

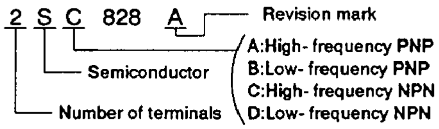
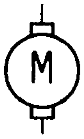
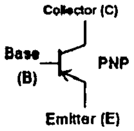
Remark
● Current will not flow through a circuit if ground is faulty</td></tr>
<tr><td>Ground (2)
</td></tr>
<tr><td>Fuse (1)

(box)</td><td rowspan="3">● Melts when current flow exceeds that specified for circuit, stopping current flow

Precautions
● Do not replace with fuses exceeding specified capacity
<Box type>

<Cartridge type>

<Main fuse>

<Fusible link>
</td></tr>
<tr><td>Fuse (2)

(Cartridge)</td></tr>
<tr><td>Main fuse/Fusible link
</td><td></td><td></td></tr>
<tr><td>Transistor (1)


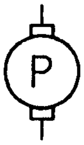
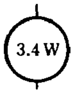
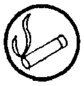
Collector (C)
Base (B)
NPN
Emitter (E)

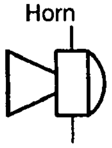
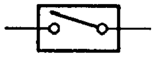
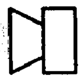
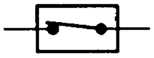
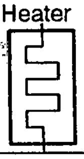
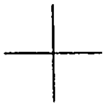
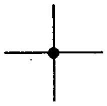
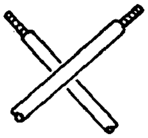
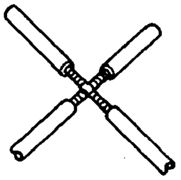
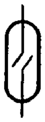
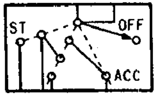
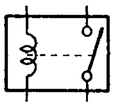
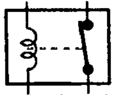
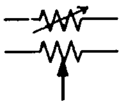
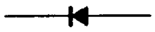
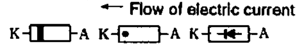
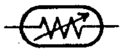
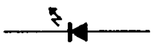
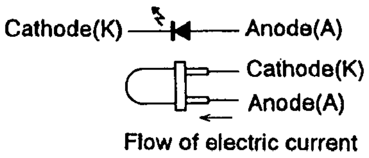
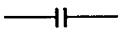
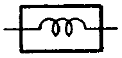
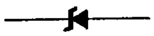
</td><td rowspan="2">● Electrical switching component
● Turns on when voltage is applied to the base(B)


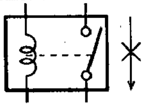
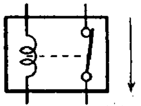
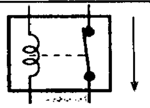
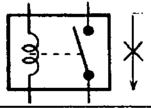
Collector indication mark
B
E
C
E C B
E
C
B

● Reading code

2 S C 828 A
Revision mark
A:High-frequency PNP
B:Low-frequency PNP
C:High-frequency NPN
D:Low-frequency NPN
Semiconductor
Number of terminals</td><td>Motor
 </td><td>● Converts electrical energy into mechanical energy</td></tr>
<tr><td>Transistor (2)


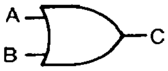
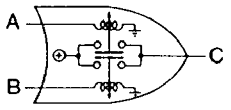
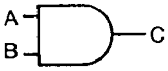
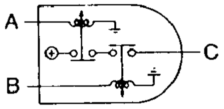
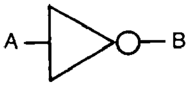
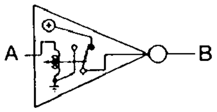
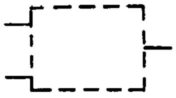
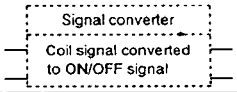
Collector (C)
Base (B)
PNP
Emitter (E)

</td><td>Pump
 </td><td>● Pulls in and expels gases and liquids</td></tr>
<tr><td>Lamp
 </td><td>● Emits light and generates heat when current flows through filament</td><td>Cigarette lighter
</td><td>● Electrical coil that generates heat</td></tr>
</table>

Symbol	Meaning	Symbol	Meaning
Horn 	- Generates sound when current flows.	Switch (1)  Normally open (NO)	- Allows or breaks current flow by opening and closing circuits.
Speaker 		Switch (2)  Normally closed (NC)	
Heater 	- Generates heat when current flows.	Harness  (Not connected)  (Connected)	- Unconnected intersecting harness.  - Connected intersecting harness. 
Speed sensor 	- Movement of magnet in speedometer set turns contact within sensor on and off.		
Ignition switch  Normally open (NO)	- Turning ignition key operates switch contacts to complete various circuits.		
Relay (1) 	- Current flowing through coil produces electromagnetic force causing contact to open or close.		
Relay (2)  Normally closed (NC)			
Sensor (variable) 	- Resistor whose resistance changes with operation of other components.	Diode 	- Known as a semiconductor rectifier, diode allows current flow in one direction only  Cathode(K) Anode(A) Flow of electric current K A K A K A
Sensor (thermistor) 	- Resistor whose resistance changes with temperature.	Light emitting diode (LED) 	- Diode that lights when current flows - Unlike ordinary light bulbs, diode does not generate heat when lit  Cathode(K) Anode(A) Cathode(K) Anode(A) Flow of electric current
Capacitor 	- Component that temporarily stores electrical charge.		
Solenoid 	- Current flowing through coil generates electromagnetic force to operate plungers, etc.	Reference(zener) diode 	- Allows current to flow in one direction up to a certain voltage, allows current to flow in other direction once that voltage is exceeded.

	Open		Closed	
Normally open relay (NO)		No flow		Closed
Normally closed relay (NC)		Flow		No flow

Logic symbols

Types of logic symbols	Operation	Expressing output	Simple relay circuits
OR 	Input to A or B will produce output at C	Low electrical potential (L) at A and B → No output (L) at C High electrical potential (H) at A or B → Output (H) at C	
AND 	Input to A and B will produce output at C	High electrical potential (H) at A and B → Output (H) at C Low electrical potential (L) at A or B → No output (L) at C	
INV 	No input to A will produce an output at B Input to A will not produce any output at B	Low electrical potential (L) at A → Ungrounds (H) B High electrical potential (H) at A → Grounds (L) B	
PROCESS 	Simplified representation of complex functions within circuit Describes main function 1.Signal detector for emission control unit, cooling unit and tachometer 2.Signal converter for turn and hazard flasher unit,breakerless transistor igniter unit, etc.		(Examples) Breakerless transistor igniters 

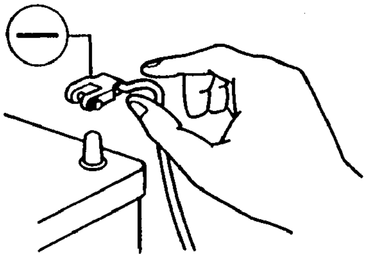
Abbreviations used in this booklet

A	Ampere
AAS	Auto Adjusting Suspension
ABS	Anti-lock Brake System
ACV	Air Control Valve
AE	Acoustic Equilibration
AIS	Air Injection System
ALL	Automatic Load Leveling
AS	Auto Stop
ASV	Air Supply Valve
A/C	Air Conditioner
A/F	Air Fuel
A/R	Auto Reverse
A/T	Automatic Transmission
ACC	Accessory
ACCEL	Accelerator
ADD	Additional
ALT	Alternator
AM	Amplitude Modulation
AMP	Amplifier
ANT	Antenna
ATP	Atmospheric Pressure
ATX	Automatic Transaxle
B	Battery
BAC	By-pass Air Control Valve
B/L	Bi-Level
CPU	Central Processing Unit
CSD	Cold Start Device
CARB	Carburator
CCT	Circuit
CIGAR	Cigarette
COMBI	Combination
CON	Conditioner
CONT	Control
DOHC	Double Overhead Camshaft
DEF	Defroster
ECPS	Electronically Controlled Power Steering
EGI	Electronic Gasoline Injection
EGR	Exhaust Gas Recirculation
ELR	Emergency Locking Retractor
ELEC	Electric
ETR	Electronic Tuner
EXH	Exhaust
F	Front
FICB	Fast Idle Cam Breaker
FL	Front Left
FR	Front Right
F/B	Feedback
F/I	Fuel Injector
FM	Frequency Modulation
GEN	Generator
HEI	High Energy Ignition
H/D	Heat/Defroster
HEAT	Heater
HI	High
ISC	Idle Speed Control
IG	Ignition
ILLUMI	Illumination
INT	Intermittent
JB	Joint Box
LH	Left Hand
LCD	Liquid Crystal Display
LO	Low
LW	Low Wave
M	Motor
MIL	Malfunction Indicator Lamp
MTR	Mechanical Tuning Radio
M/T	Manual Transmission
MID	Middle
MIN	Minute
MIX	Mixture
MPX	Multiplex
MTX	Manual Transaxle
MW	Middle Wave
NC	Normally Closed
NO	Normally Open
OD	Over Drive
OFF	Switch Off
ON	Switch On
P	Power
PRCV	Pressure Regulator Control Solenoid Valve
PTC	Positive Temperature Coefficient Heater
P/S	Power Steering
PRG	Purge Solenoid Valve
QSS	Quick Start System
R	Rear
RH	Right Hand
RL	Rear Left
RPM	Revolution Per Minute
RR	Rear Right
REC	Recirculation
SOL	Solenoid
ST	Start
SW	Short Wave
SW	Switch
TCV	Twin Scrol Turbocharger Solenoid Valve
TICS	Triple Induction Control System
TEMP	Temperature
TR	Transistor
TWS	Total Wiring System
V	Volt
VRIS	Variable Resonance Induction System
VENT	Ventilation
VOL	Volume
W	Watt

Precautions when servicing electrical system

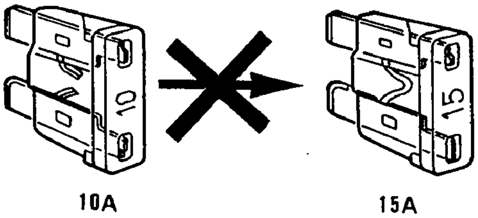
- Note the following items when servicing the electrical system.
- Do not alter the wiring or electrical equipment in any way as this may damage the vehicle or cause a fire due to shorting or overcapacity of a circuit.

- Always disconnect the negative (–) battery cable first and reconnect it last when disconnecting the battery.



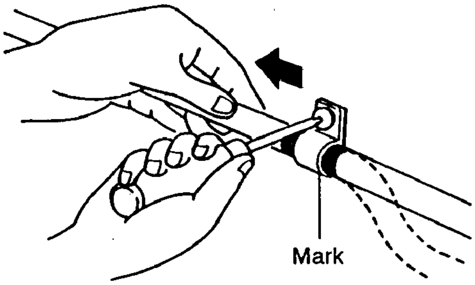
Caution
- Be sure that the ignition and other switches are OFF before disconnecting or connecting the battery terminals.
  Failure to do so may damage the semi-conductor components.

- Replace blown fuses with ones having the same designated capacity.



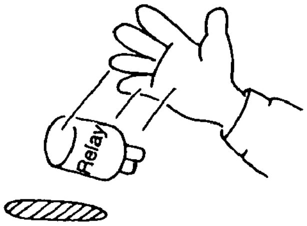
Caution
- Replacing a fuse with one of a larger capacity than designated may damage components or cause an electrical fire.

- Secure harnesses with a clamp when provided to take up any slack.

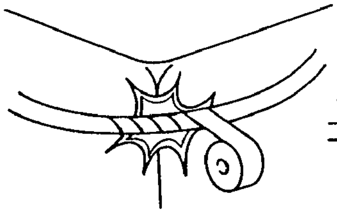


Caution
- Clamp all harnesses near vibrating components(e.g. the engine) to remove any slack and prevent contact due to vibration.

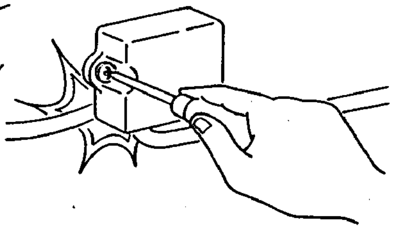
- Do not handle roughly or drop electrical components.



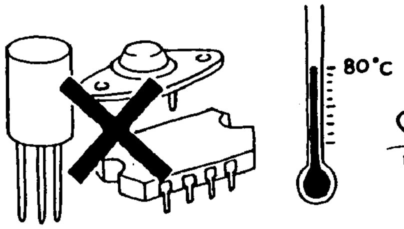
- Tape areas of the harness that may rub or bump against sharp edges to protect it from damage.



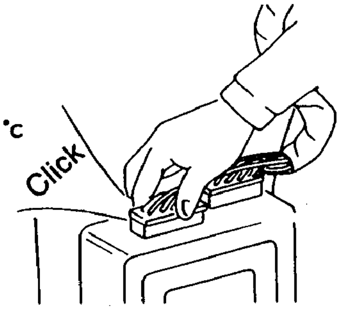
- Be sure that the harness is not caught or damaged when mounting components.



- Disconnect heat sensitive parts (e.g. relays, ECU) when performing maintenance where temperatures may exceed 80°C (176°F) (i.e.welding).



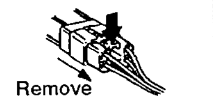
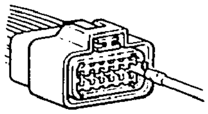
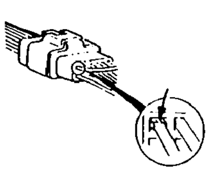
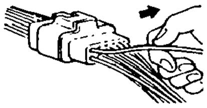
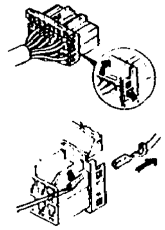
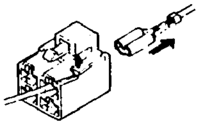
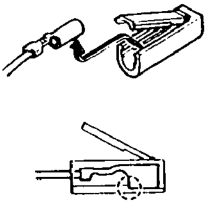
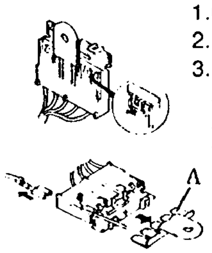
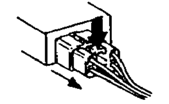
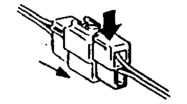
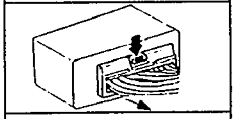
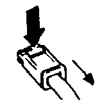
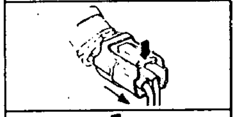
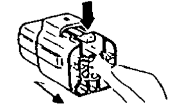
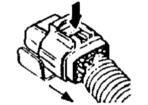
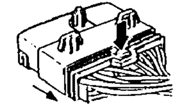
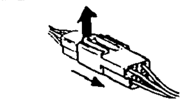
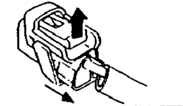
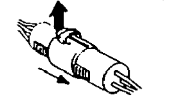
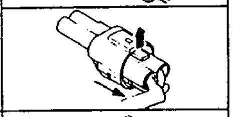
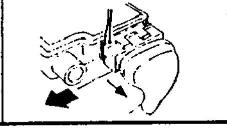
- Make sure that the connectors are securely connected when installed.



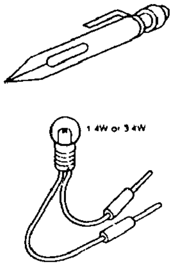
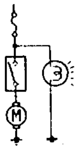
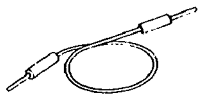
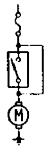
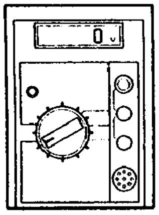
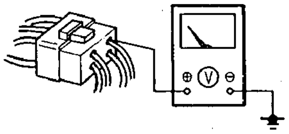
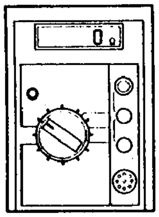
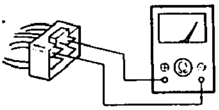
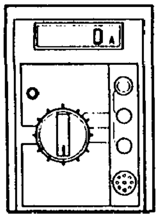
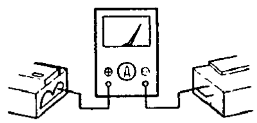
Handling connectors

Caution

- Be sure to grasp the connectors, not the wires, when disconnecting them.

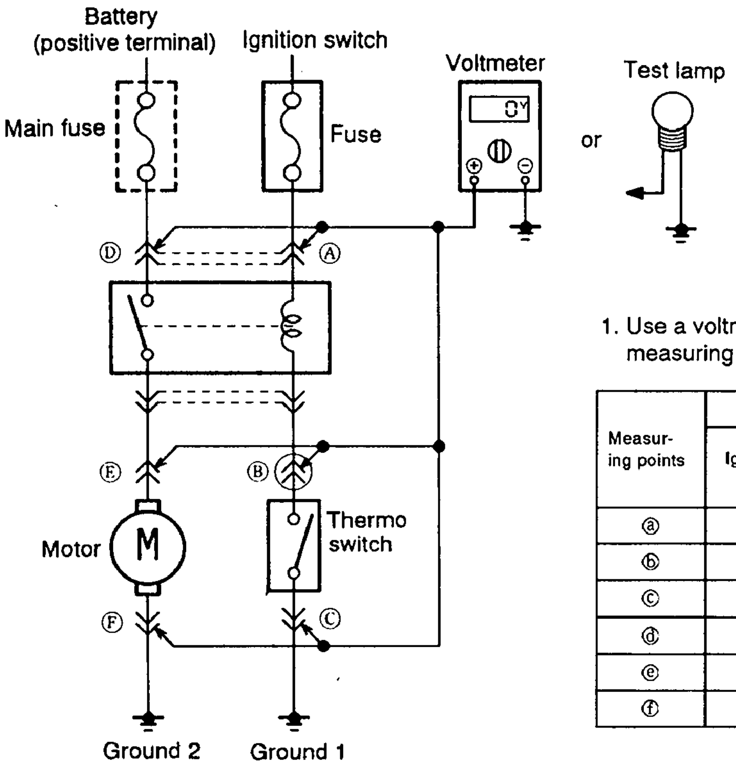
Connector removal		Checking connector engagement	Checking for loose terminal	Repairing terminal
Push type		Caution Improperly engaged connectors will cause poor terminal contact.  Using a matching male terminal make sure there is no looseness in the female terminal.	Caution A loose terminal will cause poor terminal contact.  Verify that terminals are not pushed out of the connector when engaged.  Lightly pull each wire to verify that the terminal does not pull out of the connector.	<CPU connector>  1.Open the rear cover. 2.Lift the tab with a small screwdriver and remove the terminal. <General connector>  Lift the tab with a small screwdiver and remove the terminal. <Round connectors>  1.Open the cover. 2.Lift the terminal to remove it. 3.Verify that the terminal is securely mounted in the connector when reinstalling. <Common ground connector>  1.Open the cover. 2.Remove A. 3.Lift the tab with a small screwdriver and remove the terminal.
				
				
				
				
				
				
				
				
Pull up type				
				
				
				
Spring type				

Using electrical test equipment

Equipment	Use	Operation	Handling precautions
Test lamp  	Test for locating open or shorted circuits.	● Connect the test lamp between the circuit being measured and a ground. ● The lamp will light if the circuit is energized to the point tested.  	● Test lamps use 12V 1.4 or 3.4W bulbs or light-emitting diodes (LED). Using a large capacity bulb may damage the CPU.
Jumper wire 	Used to create a temporary circuit.	● Connect the jumper wire between the terminals of a circuit to bypass a switch, etc.  	● Do not connect the power side directly to a ground as this may burn the harness or damage electrical components.
Voltmeter  	Used for measuring the voltage of a circuit to locate possible opens or shorts.	● Connect the positive (+) lead to where voltage is to be measured and the negative (-) lead to a ground.  	● Connect the voltmeter in parallel with the circuit. ● Set the range to the desired voltage. ● Use the service hole when measuring the voltage at the diagnosis connector. ● Tie a thin wire to the positive (+) lead to access narrow terminals.
Ohmmeter  	Used for locating opens and shorts in the circuit, confirming continuity of switches and checking sensor resistance.	● Zero the ohmmeter. ● Verify that current is not flowing through the circuit. ● Touch the leads to the check points.  	● Zero the meter after switching to the measuring range. ● Before using the ohmmeter, make sure that the ignition switch is OFF or the negative (-) battery cable is disconnected to prevent burning the ohmmeter.
Ammeter  	Used for checking alternator output, current supplied to the starter, and dark current within a circuit. Note Dark current is the current flowing through the circuit when the ignition switch is OFF.	● Connect the ammeter in series with the circuit by touching the positive (+) lead to the power side terminal and the negative (–) lead to the ground - side terminal.  	● Set the range to the desired voltage. ● Connect the ammeter in series with the circuit. The ammeter may be burned if it is connected in parallel.

Measuring voltage

Checks


Battery (positive terminal)
Ignition switch
Voltmeter
Test lamp
or
Main fuse
Fuse
Ⓓ
Ⓐ
Ⓔ
Ⓑ
Motor
M
Thermo switch
Ⓕ
Ⓒ
Ground 2
Ground 1

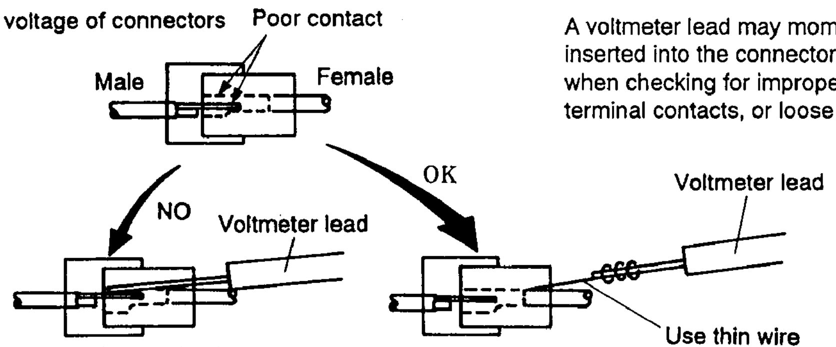
1. Use a voltmeter or test lamp to ascertain voltage at the measuring points.

Measur-ing points	Circuit operation					
	Ignition switch: OFF		Ignition switch:ON			
			Thermo switch: OFF		Thermo switch: ON	
ⓐ	0V	×	12V	☼	12V	☼
ⓑ	0V	×	12V	☼	0V	×
ⓒ	0V	×	0V	×	0V	×
ⓓ	12V	☼	12V	☼	12V	☼
ⓔ	0V	×	0V	×	12V	☼
ⓕ	0V	×	0V	×	0V	×

☼ : Test lamp ON
× : Test lamp OFF

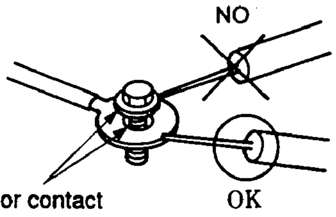
Precautions during checks

Measuring voltage of connectors


Poor contact
Male
Female
NO
OK
Voltmeter lead
Voltmeter lead
Use thin wire

A voltmeter lead may momentarily connect a terminal when inserted into the connector and give an erroneous reading when checking for improperly engaged connectors, poor terminal contacts, or loose terminals.

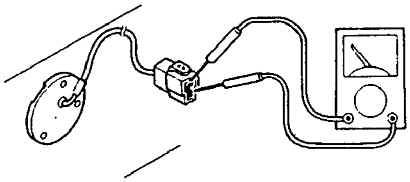
Measuring voltage of ground unit


NO
Poor contact
OK

Touch the voltmeter lead to the ground wire when checking the ground circuit.

Measuring continuity/resistance

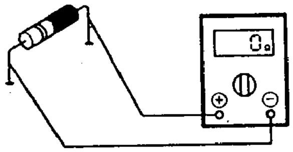
Checking switches



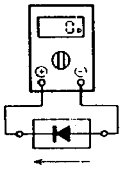
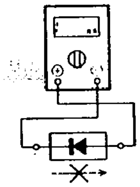
Touch the ohmmeter leads to the switch terminals to check continuity.

Caution
Verify the operating state of the switch before checking continuity because readings vary accordingly.

Checking diodes

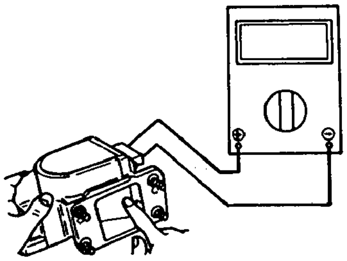


Continuity is checked according to the direction of the positive (+) and negative (-) leads of the ohmmeter in the circuit containing the diode.

Connection	Continuity
	Yes
	No

Remark
The negative (-) lead of the ohmmeter is connected to the positive terminal of the internal ohmmeter battery. The positive (+) lead to the negative terminal of the battery.

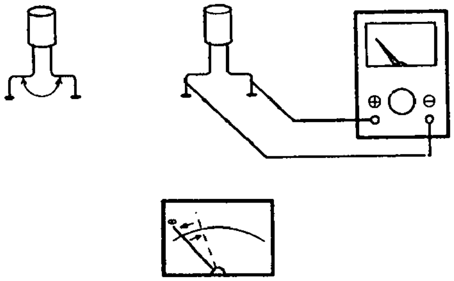
Checking sensors, solenoid valves



Connect the ohmmeter leads to the sensor or solenoid valve terminals to check resistance.

Caution
Verify the operating state of the sensor before checking resistance because readings vary accordingly.

Checking condensers



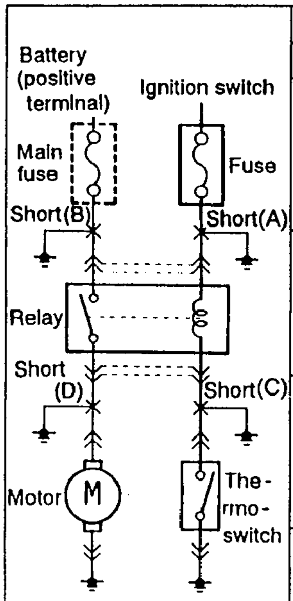
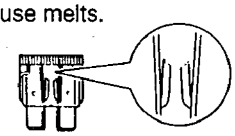
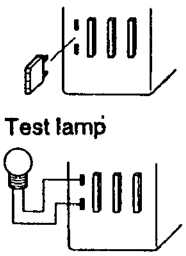
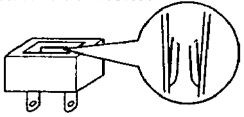
1. Short between the terminals with a jumper wire to discharge the capacitor.
2. Set the ohmmeter range to x10k Ω and connect it to the capacitor terminals.
3. The capacitor is good if the needle of the ohmmeter swings once and returns to it original position.

Finding short circuits

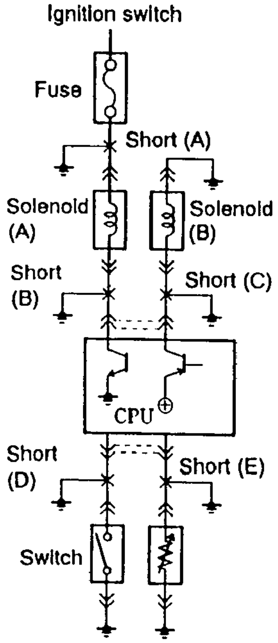
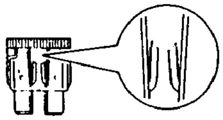
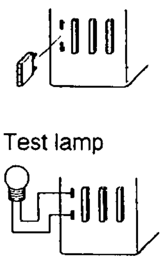
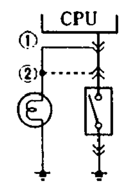
Shorts occur between the power(positive) and ground(negative) sides of a circuit.

Therefore, finding a short circuit requires determining how the circuit is routed.

Circuits not connected to control unit

	Examples		Finding short circuit
	Short location	**Indication**	
 Battery (positive terminal) Ignition switch Main fuse Fuse Short(B) Short(A) Relay Short (D) Short(C) Motor M The-rmo-switch	Short (A)	● Fuse melts. 	 1. Remove the fuse and main fuse of the circuit. 2. Disconnect all connectors of electrical components in the circuit. 3. Attach a voltmeter or test lamp to the fuse box and reconnect each connector, beginning nearest the power source. 4. Check the voltmeter or see if the test lamp lights as the connectors are connected. A short has occurred where the voltmeter reading changes or the test lamp lights.
	Short (B)	● Main fuse melts. 	
	Short (C)	● The motor operates regardless of whether the is ON or OFF when the ignition switch is ON. ● The fuse is not melted.	
	Short (D)	● The main fuse melts when the ignition switch and thermo-switch are ON and the relay is operating.	

Circuits connected to control unit

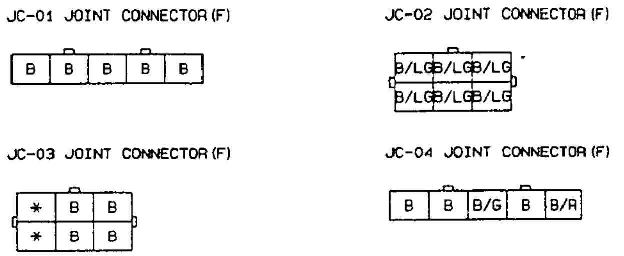
	Examples		Finding short circuit
	Short location	**Indication**	
 Ignition switch Fuse Short (A) Solenoid (A) Solenoid (B) Short (B) Short (C) CPU Short (D) Short (E) Switch	Short (A)	● Fuse melts. 	 1. Remove the fuse and main fuse of the circuit. 2. Disconnect all connectors of electrical components in the circuit. 3. Attach a voltmeter or test lamp to the fuse box and reconnect each connector, beginning nearest the power source. 4. Check the voltmeter or see if the test lamp lights as the connectors are connected. A short has occurred where the voltmeter reading changes or the test lamp lights.
	Short (B)	● Solenoid A operates normally when the ignition switch is ON.	
	Short (C)	● The CPU transistor burns out when the ignition switch is turned ON.	
	Short (D)	● The CPU thinks the switch is ON because the same conditions exist as when the switch is ON.	 Sensor/switch CPU ① ② 1. Attach the test lamp or voltmeter to the CPU connector. 2. Connect to the switch/ sensor connector. 3. Check the voltmeter or see if the test lamp lights. A short has occurred where voltmeter reads 0V or the test lamp goes out.
	Short (E)	● The CPU senses the sensor to be 0 Ω because the conditions exist as when resistance value is 0 Ω ● The CPU equipped with the self-diagnosis function outputs the malfunction code.	

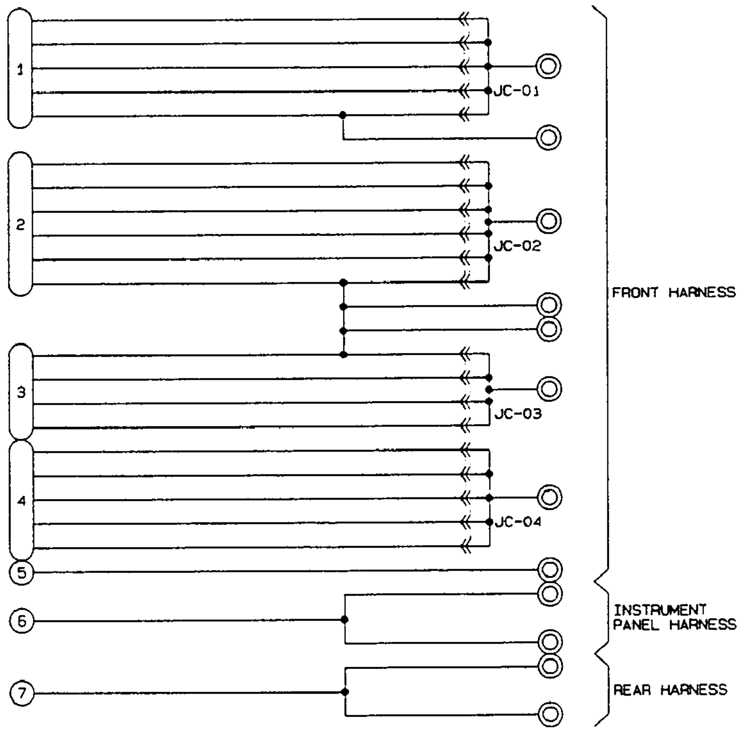
FEDERAL & CALIFORNIA

■ JOINT CONNECTOR & GROUND CIRCUIT

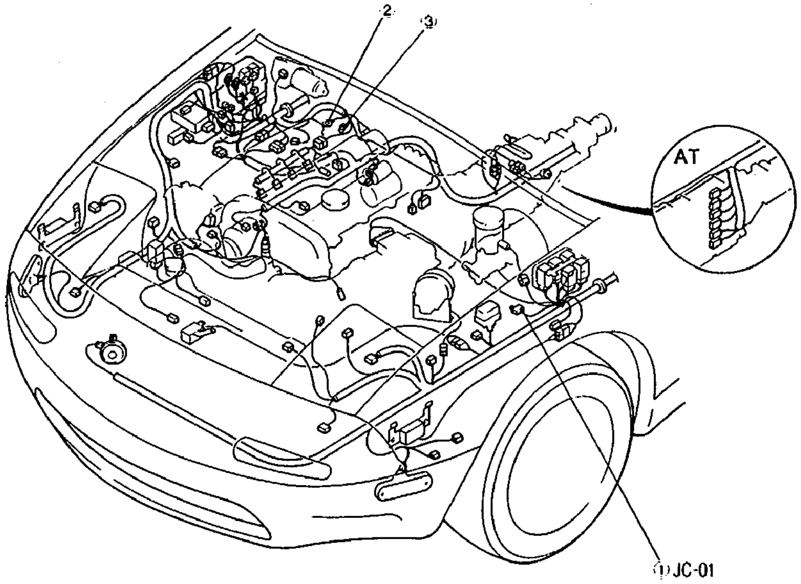
Y-1

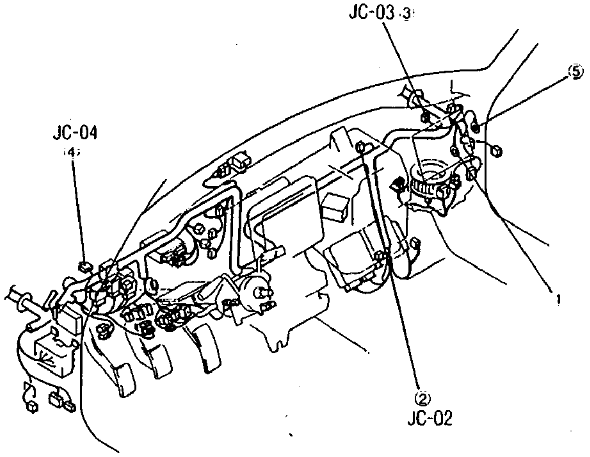
WIRING ORDER INTO THE JOINT CONNECTOR MAY BE CHANGED

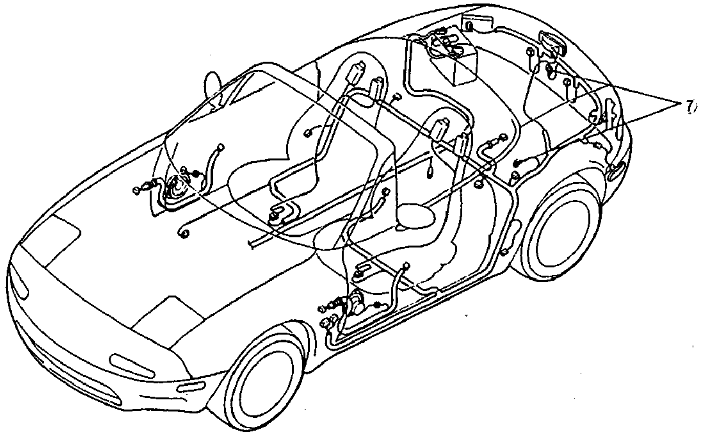

JC-01 JOINT CONNECTOR (F)
B B B B B
JC-02 JOINT CONNECTOR (F)
B/LG B/LG B/LG
B/LG B/LG B/LG
JC-03 JOINT CONNECTOR (F)
* B B
* B B
JC-04 JOINT CONNECTOR (F)
B B B/G B B/R

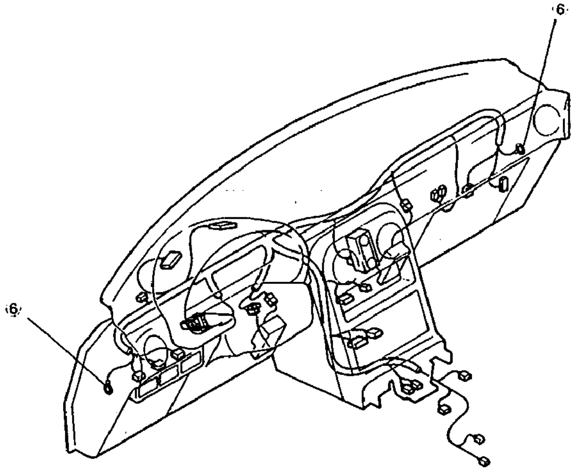

1
JC-01
2
JC-02
3
JC-03
4
JC-04
5
6
7
FRONT HARNESS
INSTRUMENT PANEL HARNESS
REAR HARNESS

Y-1




JC-03 ③
⑤
JC-04
④
1
②
JC-02



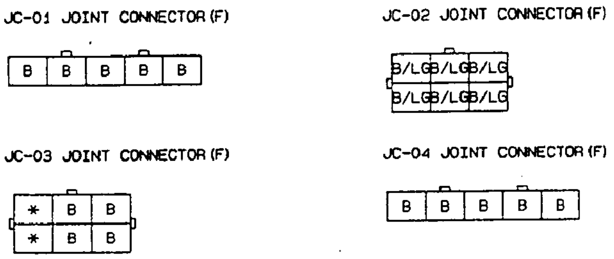


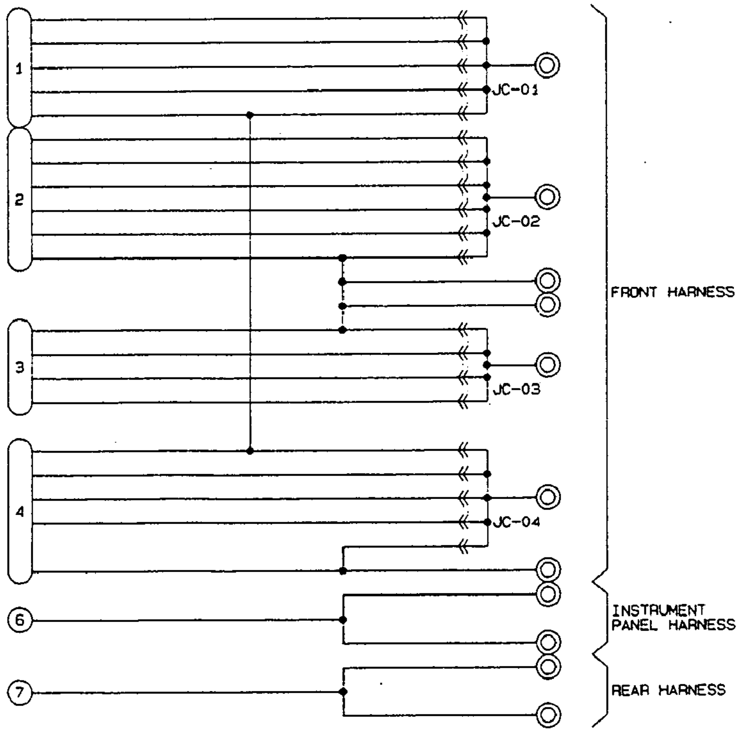
CANADA

■ JOINT CONNECTOR & GROUND CIRCUIT

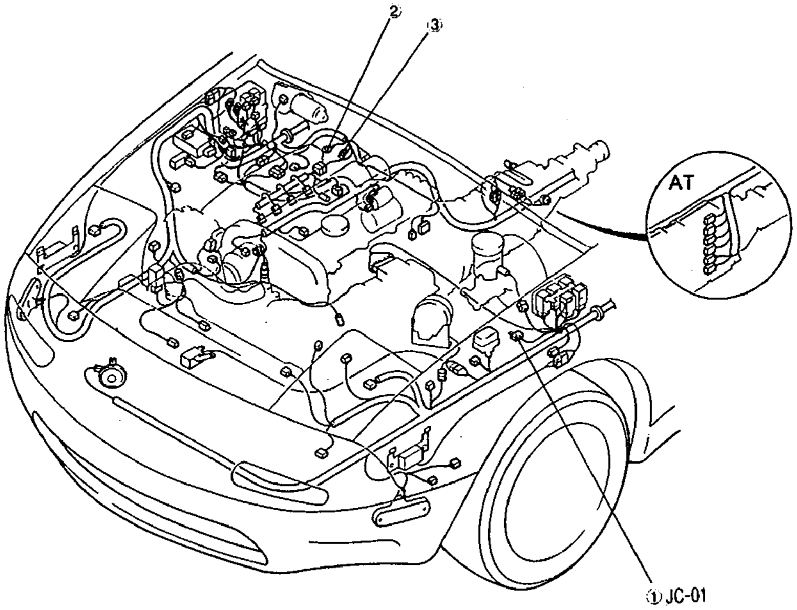
WIRING ORDER INTO THE JOINT CONNECTOR MAY BE CHANGED

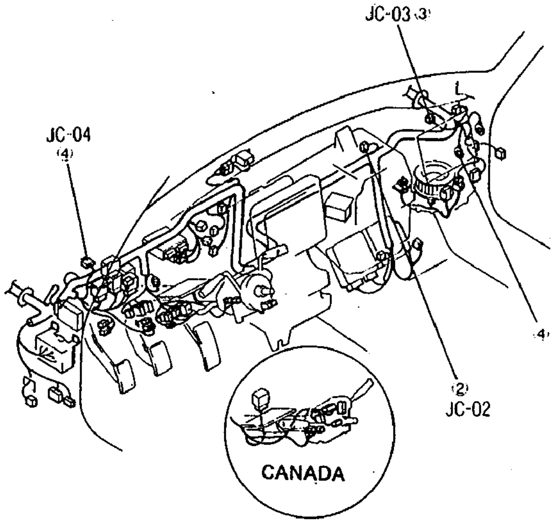
Y-2

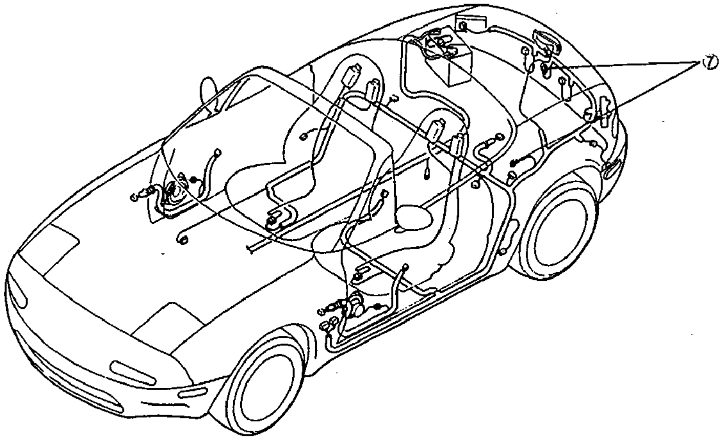

JC-01 JOINT CONNECTOR (F)
B B B B B
JC-02 JOINT CONNECTOR (F)
B/LG B/LG B/LG
B/LG B/LG B/LG
JC-03 JOINT CONNECTOR (F)
* B B
* B B
JC-04 JOINT CONNECTOR (F)
B B B B B

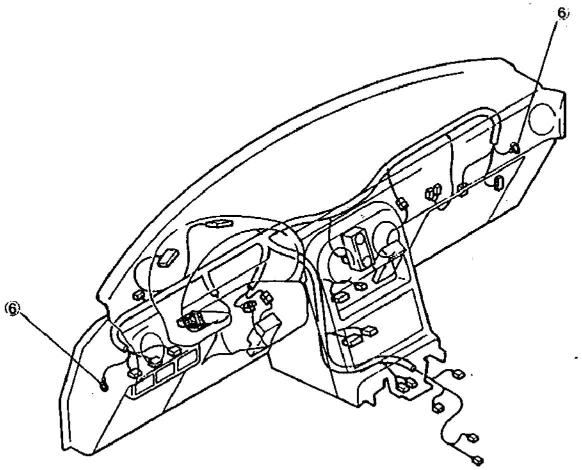

1
JC-01
2
JC-02
FRONT HARNESS
3
JC-03
4
JC-04
6
INSTRUMENT PANEL HARNESS
7
REAR HARNESS

Y-2




JC-03 ③
JC-04
④
④
②
JC-02
CANADA

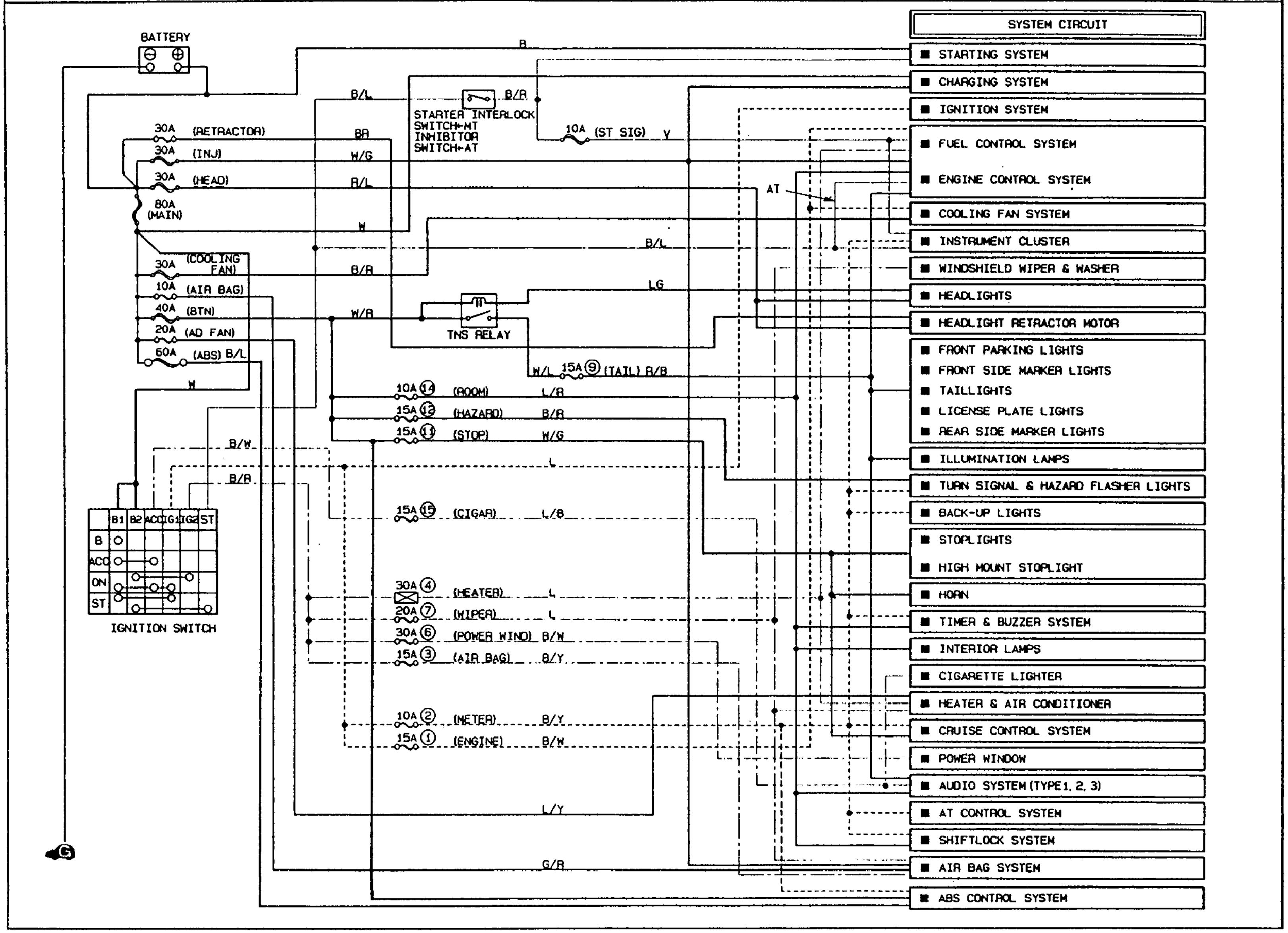




FEDERAL & CALIFORNIA ■ ELECTRICAL WIRING SCHEMATIC

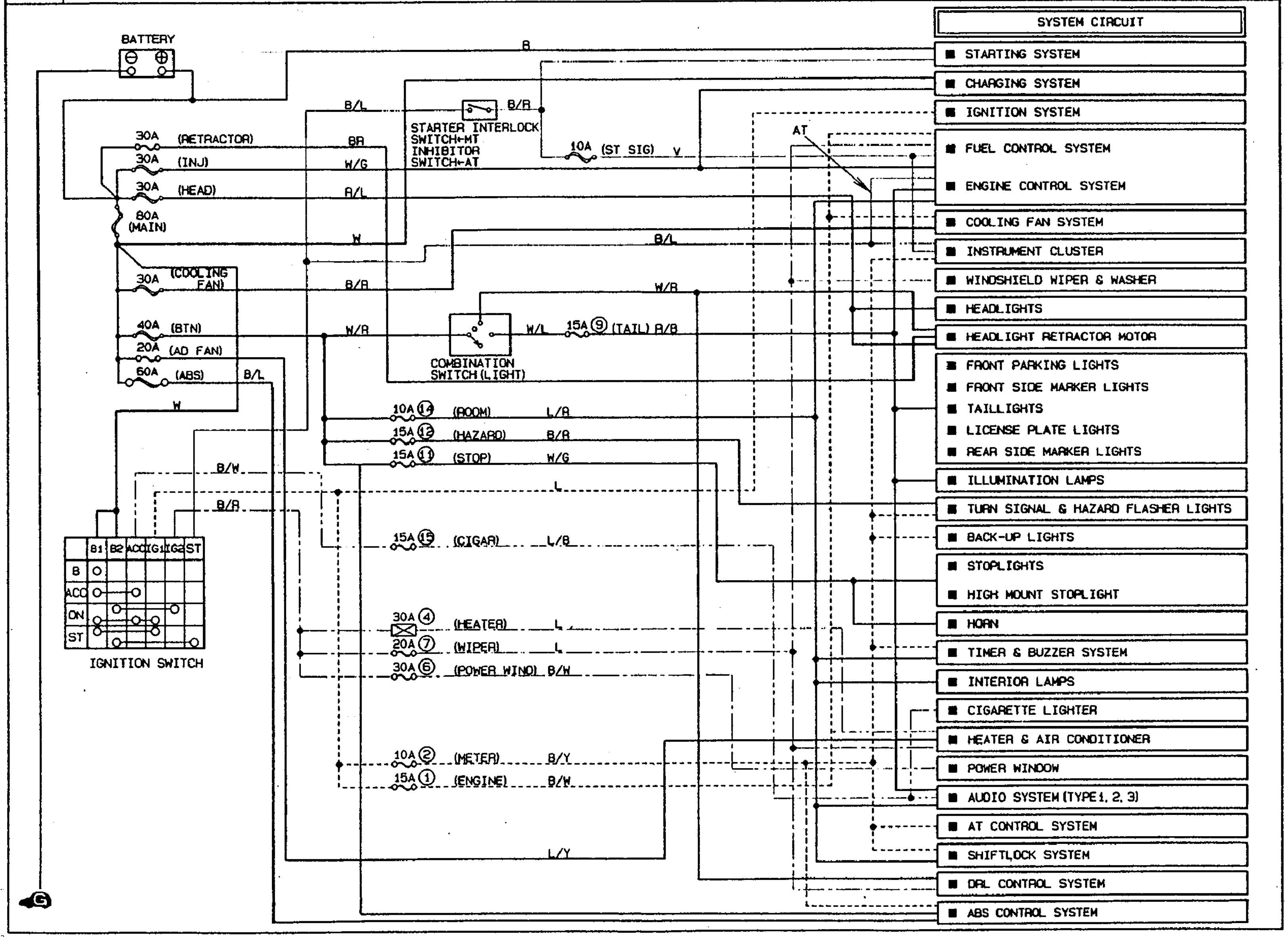
NOTE:
- ——— CURRENT FROM BATTERY
- - - - - CURRENT FROM IG1 TERMINAL OF IGNITION SWITCH
- — - — CURRENT FROM IG2 TERMINAL OF IGNITION SWITCH
- — - - — CURRENT FROM ACC TERMINAL OF IGNITION SWITCH
- —— OTHERS

W-1


BATTERY
B
B/L
B/R
STARTER INTERLOCK SWITCH-MT
INHIBITOR SWITCH-AT
10A (ST SIG) Y
30A (RETRACTOR) BR
30A (INJ) W/G
30A (HEAD) B/L
80A (MAIN)
W
B/L
30A (COOLING FAN) B/R
LG
10A (AIR BAG)
40A (BTN) W/R
20A (AD FAN)
60A (ABS) B/L
TNS RELAY
W/L 15A ⑨ (TAIL) R/B
W
10A ⑭ (ROOM) L/R
15A ⑫ (HAZARD) B/R
15A ⑪ (STOP) W/G
B/W
B/R
L
15A ⑮ (CIGAR) L/B
AT
B1 B2 ACC IG1 IG2 ST
B
ACC
ON
ST
IGNITION SWITCH
30A ④ (HEATER) L
20A ⑦ (WIPER) L
30A ⑥ (POWER WIND) B/W
15A ③ (AIR BAG) B/Y
10A ② (METER) B/Y
15A ① (ENGINE) B/W
L/Y
G/R
G
SYSTEM CIRCUIT
■ STARTING SYSTEM
■ CHARGING SYSTEM
■ IGNITION SYSTEM
■ FUEL CONTROL SYSTEM
■ ENGINE CONTROL SYSTEM
■ COOLING FAN SYSTEM
■ INSTRUMENT CLUSTER
■ WINDSHIELD WIPER & WASHER
■ HEADLIGHTS
■ HEADLIGHT RETRACTOR MOTOR
■ FRONT PARKING LIGHTS
■ FRONT SIDE MARKER LIGHTS
■ TAILLIGHTS
■ LICENSE PLATE LIGHTS
■ REAR SIDE MARKER LIGHTS
■ ILLUMINATION LAMPS
■ TURN SIGNAL & HAZARD FLASHER LIGHTS
■ BACK-UP LIGHTS
■ STOPLIGHTS
■ HIGH MOUNT STOPLIGHT
■ HORN
■ TIMER & BUZZER SYSTEM
■ INTERIOR LAMPS
■ CIGARETTE LIGHTER
■ HEATER & AIR CONDITIONER
■ CRUISE CONTROL SYSTEM
■ POWER WINDOW
■ AUDIO SYSTEM (TYPE 1, 2, 3)
■ AT CONTROL SYSTEM
■ SHIFTLOCK SYSTEM
■ AIR BAG SYSTEM
■ ABS CONTROL SYSTEM

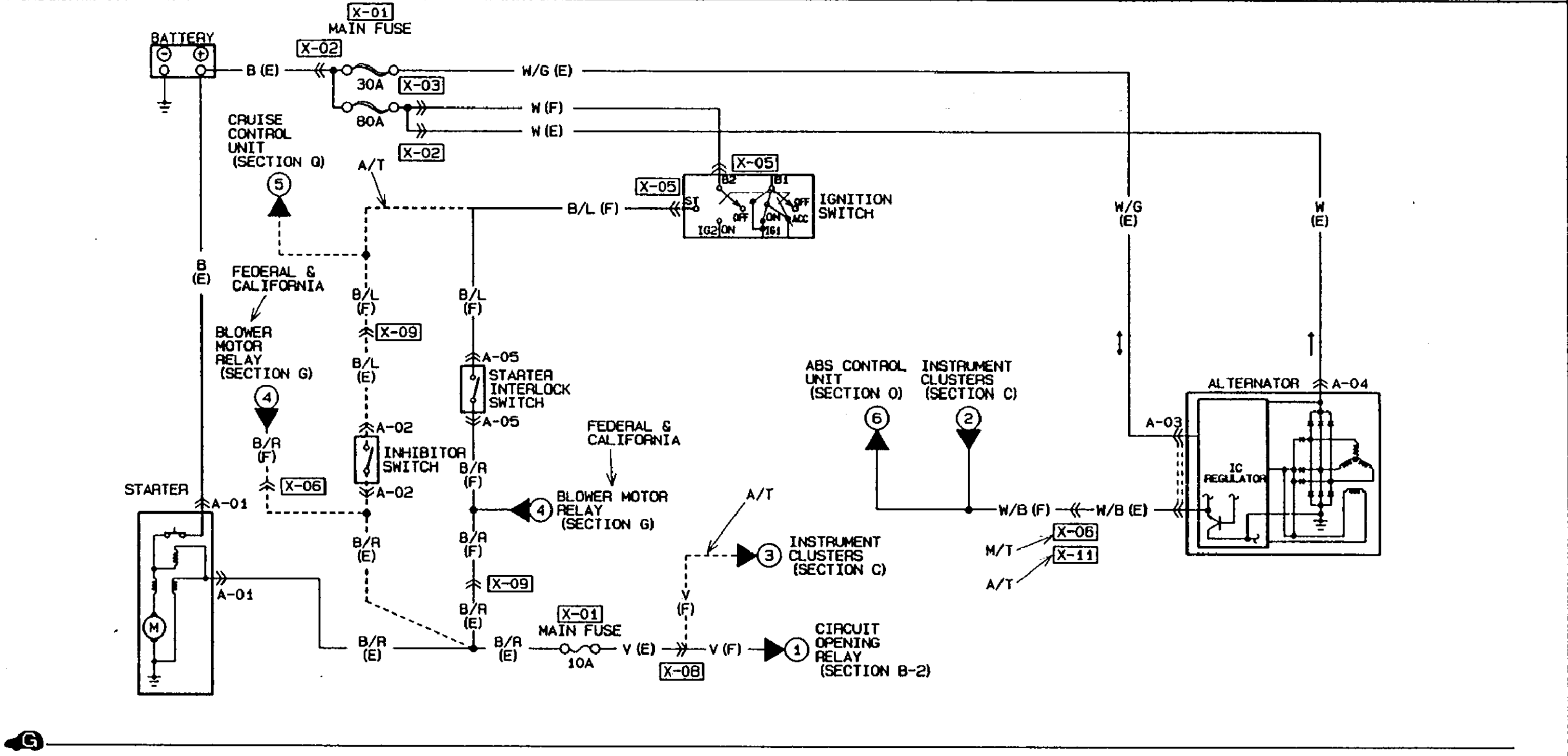
W-2 CANADA ■ ELECTRICAL WIRING SCHEMATIC

NOTE:
- ——— CURRENT FROM BATTERY
- - - - - CURRENT FROM IG1 TERMINAL OF IGNITION SWITCH
- —·—· CURRENT FROM IG2 TERMINAL OF IGNITION SWITCH
- —··— CURRENT FROM ACC TERMINAL OF IGNITION SWITCH
- ——— OTHERS

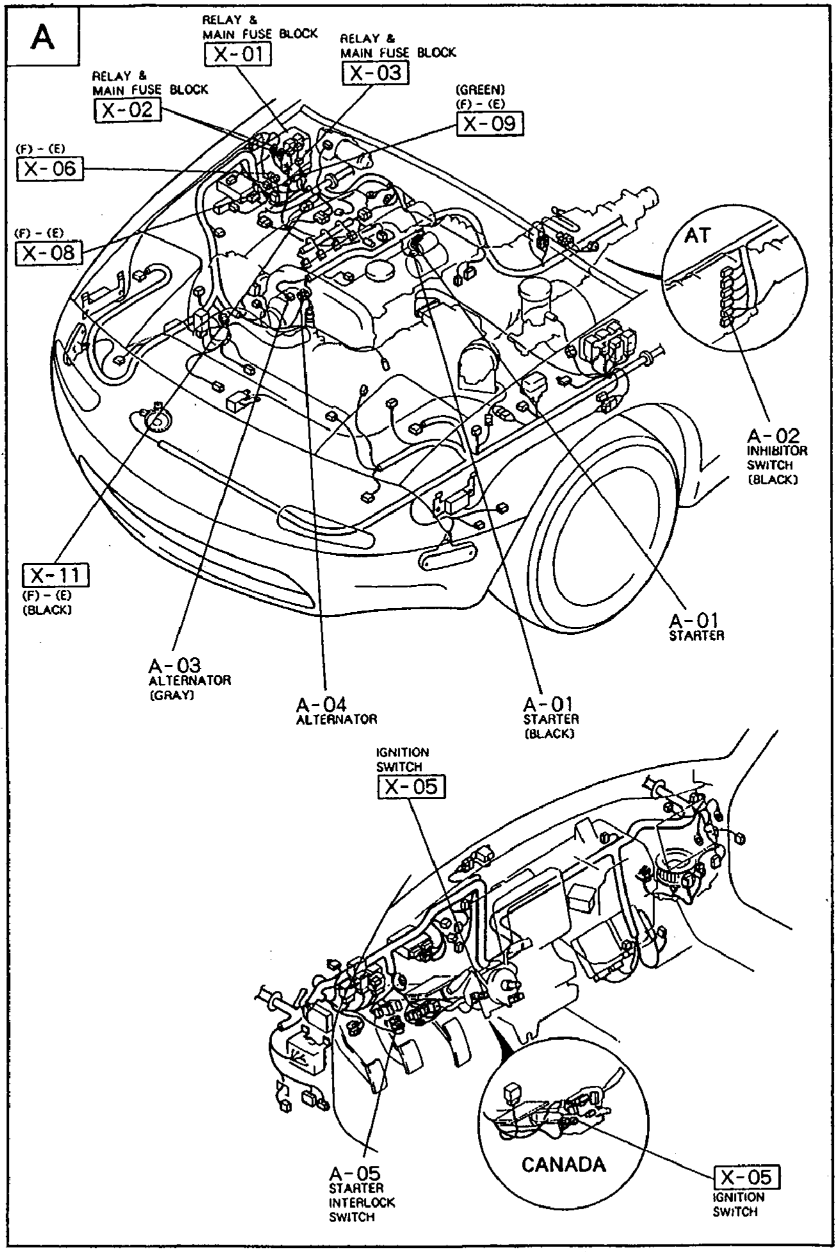

BATTERY
B
B/L
B/R
STARTER INTERLOCK SWITCH-MT
INHIBITOR SWITCH-AT
10A (ST SIG) V
AT
30A (RETRACTOR) BR
30A (INJ) W/G
30A (HEAD) R/L
80A (MAIN)
W
B/L
30A (COOLING FAN) B/R
W/R
40A (BTN) W/R
20A (AD FAN)
60A (ABS) B/L
W
COMBINATION SWITCH (LIGHT)
W/L 15A ⑨ (TAIL) R/B
10A ⑭ (ROOM) L/R
15A ⑫ (HAZARD) B/R
15A ⑪ (STOP) W/G
B/W
L
B/R
15A ⑮ (CIGAR) L/B
30A ④ (HEATER) L
20A ⑦ (WIPER) L
30A ⑥ (POWER WIND) B/W
10A ② (METER) B/Y
15A ① (ENGINE) B/W
L/Y
B1 B2 ACC IG1 IG2 ST
B
ACC
ON
ST
IGNITION SWITCH
G
SYSTEM CIRCUIT
■ STARTING SYSTEM
■ CHARGING SYSTEM
■ IGNITION SYSTEM
■ FUEL CONTROL SYSTEM
■ ENGINE CONTROL SYSTEM
■ COOLING FAN SYSTEM
■ INSTRUMENT CLUSTER
■ WINDSHIELD WIPER & WASHER
■ HEADLIGHTS
■ HEADLIGHT RETRACTOR MOTOR
■ FRONT PARKING LIGHTS
■ FRONT SIDE MARKER LIGHTS
■ TAILLIGHTS
■ LICENSE PLATE LIGHTS
■ REAR SIDE MARKER LIGHTS
■ ILLUMINATION LAMPS
■ TURN SIGNAL & HAZARD FLASHER LIGHTS
■ BACK-UP LIGHTS
■ STOPLIGHTS
■ HIGH MOUNT STOPLIGHT
■ HORN
■ TIMER & BUZZER SYSTEM
■ INTERIOR LAMPS
■ CIGARETTE LIGHTER
■ HEATER & AIR CONDITIONER
■ POWER WINDOW
■ AUDIO SYSTEM (TYPE 1, 2, 3)
■ AT CONTROL SYSTEM
■ SHIFTLOCK SYSTEM
■ DRL CONTROL SYSTEM
■ ABS CONTROL SYSTEM

■STARTING SYSTEM ■CHARGING SYSTEM

A

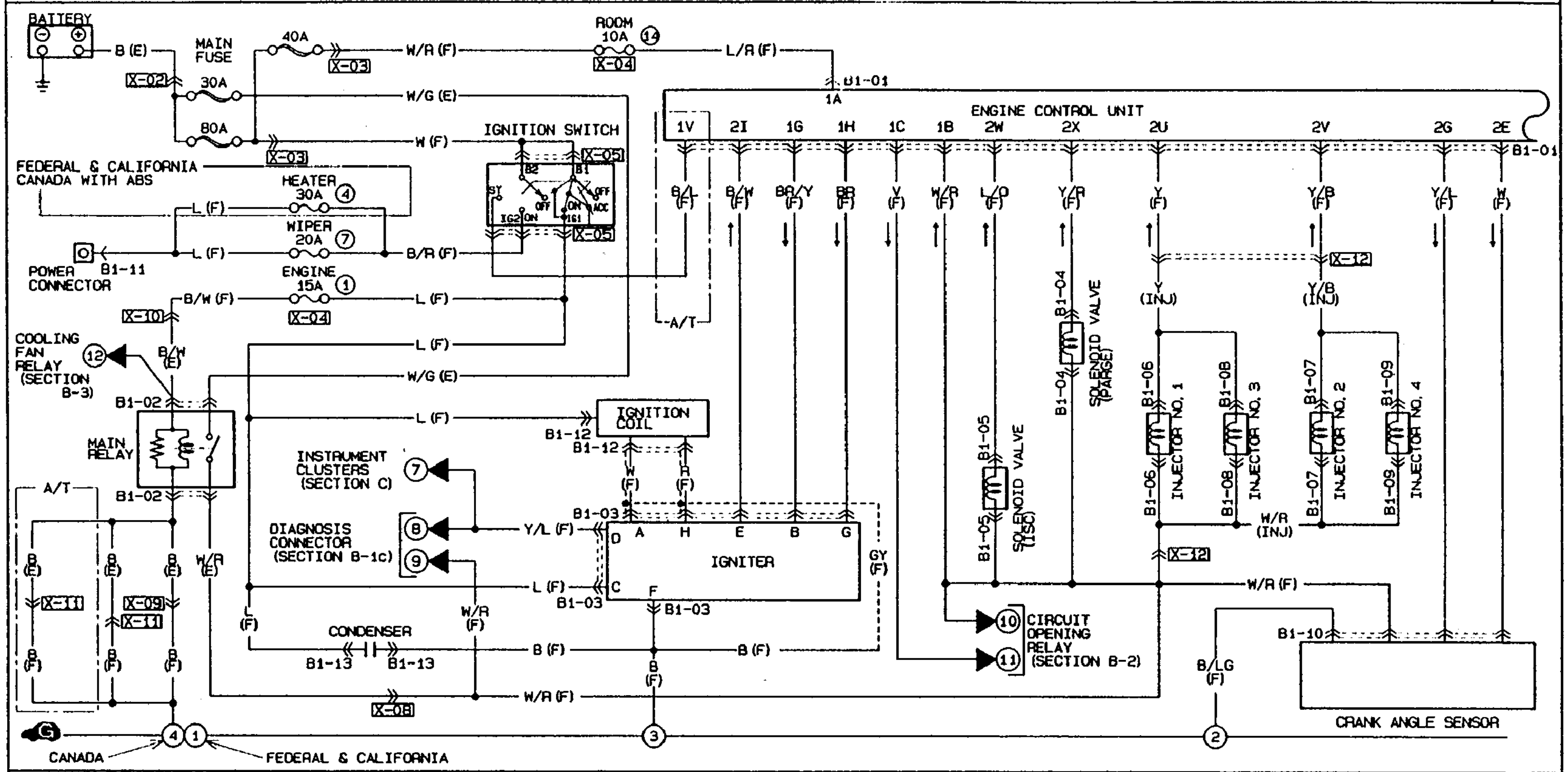

X-01
MAIN FUSE
BATTERY
X-02
B (E)
30A
X-03
80A
W/G (E)
W (F)
W (E)
X-02
CRUISE CONTROL UNIT (SECTION Q)
5
A/T
X-05
X-05
B2
B1
ST
OFF
ON
ACC
IG2
IG1
IGNITION SWITCH
B/L (F)
W/G (E)
W (E)
B (E)
FEDERAL & CALIFORNIA
BLOWER MOTOR RELAY (SECTION G)
4
B/L (F)
X-09
B/L (E)
A-02
INHIBITOR SWITCH
A-02
B/L (F)
A-05
STARTER INTERLOCK SWITCH
A-05
B/R (F)
X-06
STARTER
A-01
A-01
M
B/R (E)
B/R (F)
FEDERAL & CALIFORNIA
BLOWER MOTOR RELAY (SECTION G)
4
B/R (F)
X-09
B/R (E)
B/R (E)
B/R (E)
X-01
MAIN FUSE
10A
V (E)
X-08
V (F)
CIRCUIT OPENING RELAY (SECTION B-2)
1
A/T
V (F)
INSTRUMENT CLUSTERS (SECTION C)
3
ABS CONTROL UNIT (SECTION O)
6
INSTRUMENT CLUSTERS (SECTION C)
2
W/B (F)
W/B (E)
X-06
X-11
M/T
A/T
ALTERNATOR
A-04
A-03
IC REGULATOR
G

A-01 STARTER (E)	A-02 INHIBITOR SWITCH (E)	A-03 ALTERNATOR (E)	A-04 ALTERNATOR (E)	A-05 STARTER INTERLOCK SWITCH (F)		
B B/R	B/R B/L	W/G W/B	W	* B/R B/L		

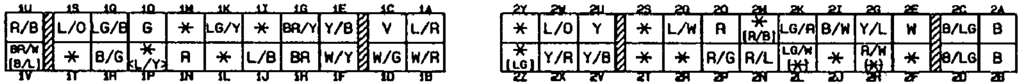

A
RELAY &
MAIN FUSE BLOCK
X-01
RELAY &
MAIN FUSE BLOCK
X-03
RELAY &
MAIN FUSE BLOCK
X-02
(GREEN)
(F) - (E)
X-09
(F) - (E)
X-06
(F) - (E)
X-08
AT
A-02
INHIBITOR
SWITCH
(BLACK)
X-11
(F) - (E)
(BLACK)
A-01
STARTER
A-03
ALTERNATOR
(GRAY)
A-04
ALTERNATOR
A-01
STARTER
(BLACK)
IGNITION
SWITCH
X-05
A-05
STARTER
INTERLOCK
SWITCH
CANADA
X-05
IGNITION
SWITCH

■ENGINE CONTROL SYSTEM ■IGNITION SYSTEM

B-1a

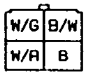

BATTERY
B (E)
MAIN FUSE
40A
30A
80A
X-02
X-03
W/R (F)
W/G (E)
W (F)
ROOM 10A ⑭
X-04
L/R (F)
B1-01
1A
ENGINE CONTROL UNIT
1V 2I 1G 1H 1C 1B 2W 2X 2U 2V 2G 2E
IGNITION SWITCH
X-05
ST IG2 ON OFF B2 B1 IG1 ACC
FEDERAL & CALIFORNIA
CANADA WITH ABS
HEATER 30A ④
L (F)
WIPER 20A ⑦
B/R (F)
POWER CONNECTOR
B1-11
ENGINE 15A ①
B/W (F)
X-10
COOLING FAN RELAY (SECTION B-3)
⑫
B/W (E)
B1-02
MAIN RELAY
A/T
B/L (F)
B/W (F)
BR/Y (F)
BR (F)
V (F)
W/R (F)
L/O (F)
Y/R (F)
Y (F)
Y/B (F)
Y/L (F)
W (F)
X-12
Y (INJ)
Y/B (INJ)
B1-04 SOLENOID VALVE (PARGE)
B1-05 SOLENOID VALVE (ISC)
B1-06 INJECTOR NO. 1
B1-08 INJECTOR NO. 3
B1-07 INJECTOR NO. 2
B1-09 INJECTOR NO. 4
W/R (INJ)
IGNITION COIL
B1-12
W (F)
R (F)
INSTRUMENT CLUSTERS (SECTION C)
⑦
DIAGNOSIS CONNECTOR (SECTION B-1c)
⑧
⑨
Y/L (F)
B1-03
D A H E B G
IGNITER
C F
GY (F)
L (F)
W/R (F)
CONDENSER
B1-13
B (F)
X-08
X-11
X-09
B (E)
W/R (E)
B (F)
⑩ CIRCUIT OPENING RELAY
⑪ (SECTION B-2)
B/LG (F)
B1-10
CRANK ANGLE SENSOR
G
④ ① ③ ②
CANADA
FEDERAL & CALIFORNIA

B1-01 ENGINE CONTROL UNIT (F)

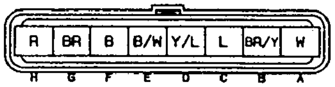

1U R/B
1S L/O
1Q LG/B
1O G
1M ＊
1K LG/Y
1I ＊
1G BR/Y
1E Y/B
1C V
1A L/R
1V BR/W (B/L)
1T ＊
1R B/G
1P ＊ <L/Y>
1N R
1L ＊
1J L/B
1H BR
1F W/Y
1D W/G
1B W/R
2Y ＊
2W L/O
2U Y
2S ＊
2Q L/W
2O R
2M ＊ (R/B)
2K LG/R
2I B/W
2G Y/L
2E W
2C B/LG
2A B
2Z ＊ (LG)
2X Y/R
2V Y/B
2T ＊
2R ＊
2P R/G
2N R/L
2L LG/W [＊]
2J ＊
2H R/W [＊]
2F ＊
2D B/LG
2B B

( )...CANADA < >...WITH POWER STEERING [ ]...A/T

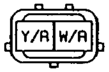
B1-02 MAIN RELAY: IN THE RELAY & MAIN FUSE BOX (E)



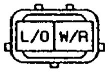
B1-03 IGNITER (F)


R BR B B/W Y/L L BR/Y W
H G F E D C B A

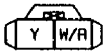
B1-04 SOLENOID VALVE (PARGE) (F)



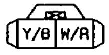
B1-05 SOLENOID VALVE (ISC) (F)



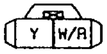
B1-06 INJECTOR NO. 1 (INJ)



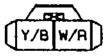
B1-07 INJECTOR NO. 2 (INJ)



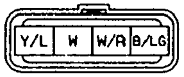
B1-08 INJECTOR NO. 3 (INJ)



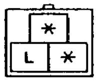
B1-09 INJECTOR NO. 4 (INJ)



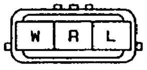
B1-10 CRANK ANGLE SENSOR (F)



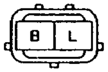
B1-11 POWER CONNECTOR (F)



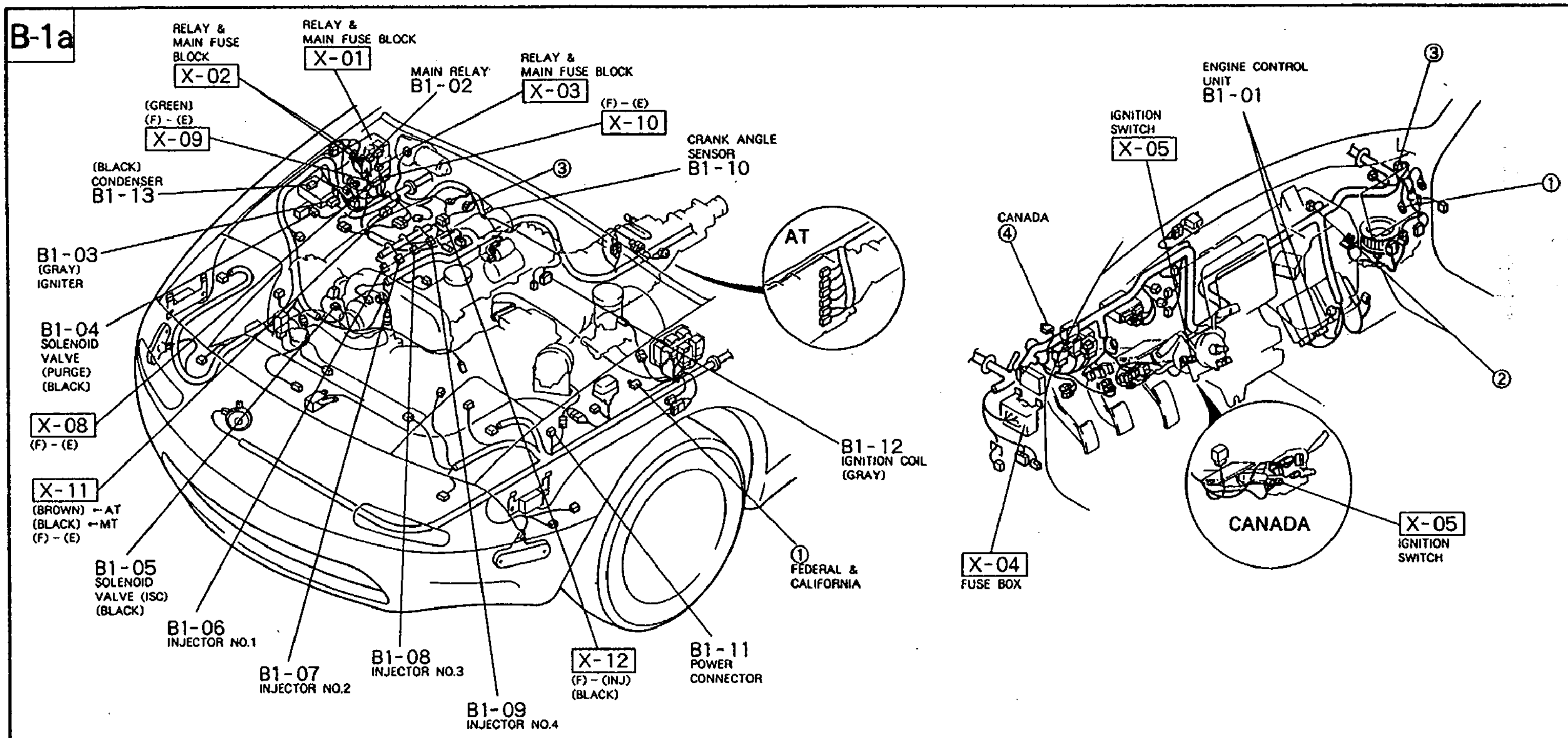
B1-12 IGNITION COIL (F)



B1-13 CONDENSER (F)

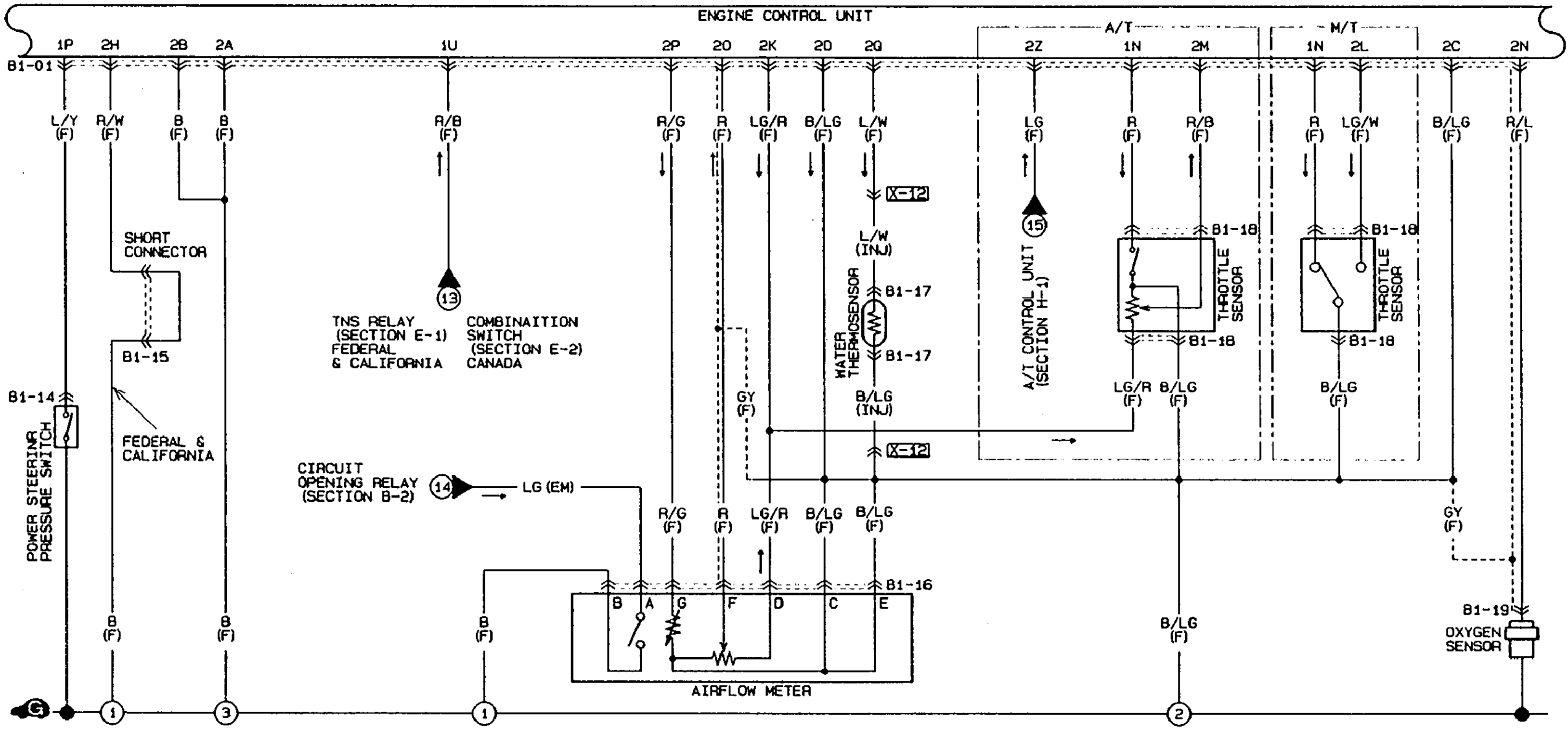


B-1a


RELAY & MAIN FUSE BLOCK
X-02
RELAY & MAIN FUSE BLOCK
X-01
MAIN RELAY
B1-02
RELAY & MAIN FUSE BLOCK
X-03
(F) - (E)
X-10
(GREEN)
(F) - (E)
X-09
CRANK ANGLE SENSOR
B1-10
(BLACK)
CONDENSER
B1-13
③
AT
B1-03
(GRAY)
IGNITER
B1-04
SOLENOID VALVE (PURGE)
(BLACK)
X-08
(F) - (E)
X-11
(BROWN) ←AT
(BLACK) ←MT
(F) - (E)
B1-05
SOLENOID VALVE (ISC)
(BLACK)
B1-06
INJECTOR NO.1
B1-07
INJECTOR NO.2
B1-08
INJECTOR NO.3
B1-09
INJECTOR NO.4
X-12
(F) - (INJ)
(BLACK)
B1-11
POWER CONNECTOR
B1-12
IGNITION COIL
(GRAY)
①
FEDERAL & CALIFORNIA
ENGINE CONTROL UNIT
B1-01
IGNITION SWITCH
X-05
③
①
CANADA
④
②
CANADA
X-05
IGNITION SWITCH
X-04
FUSE BOX

■ ENGINE CONTROL SYSTEM

B-1b


ENGINE CONTROL UNIT
B1-01
1P
2H
2B
2A
1U
2P
2O
2K
2D
2Q
A/T
2Z
1N
2M
M/T
1N
2L
2C
2N
L/Y (F)
R/W (F)
B (F)
B (F)
R/B (F)
R/G (F)
R (F)
LG/R (F)
B/LG (F)
L/W (F)
LG (F)
R (F)
R/B (F)
R (F)
LG/W (F)
B/LG (F)
R/L (F)
X-12
L/W (INJ)
B1-17
WATER THERMOSENSOR
B/LG (INJ)
X-12
15
A/T CONTROL UNIT (SECTION H-1)
B1-18
THROTTLE SENSOR
LG/R (F)
B/LG (F)
B1-18
THROTTLE SENSOR
B/LG (F)
SHORT CONNECTOR
B1-15
FEDERAL & CALIFORNIA
B1-14
POWER STEERING PRESSURE SWITCH
13
TNS RELAY (SECTION E-1) FEDERAL & CALIFORNIA
COMBINAITION SWITCH (SECTION E-2) CANADA
GY (F)
CIRCUIT OPENING RELAY (SECTION B-2)
14
LG (EM)
R/G (F)
R (F)
LG/R (F)
B/LG (F)
B/LG (F)
B1-16
B
A
G
F
D
C
E
AIRFLOW METER
GY (F)
B1-19
OXYGEN SENSOR
B (F)
B (F)
B (F)
B/LG (F)
G
1
3
1
2

B1-01 ENGINE CONTROL UNIT (F)

1U	1S	1Q	1O	1M	1K	1I	1G	1E	1C	1A
R/B	L/O	LG/B	G	*	LG/Y	*	BR/Y	Y/B	V	L/R
BR/W [B/L]	*	B/G	* <L/Y>	R	*	L/B	BR	W/Y	W/G	W/R
1V	1T	1R	1P	1N	1L	1J	1H	1F	1D	1B

2Y	2W	2U	2S	2Q	2O	2M	2K	2I	2G	2E	2C	2A
*	L/O	Y	*	L/W	R	* [R/B]	LG/R	B/W	Y/L	W	B/LG	B
* [LG]	Y/R	Y/B	*	*	R/G	R/L	LG/W [*]	*	R/W (*)	*	B/LG	B
2Z	2X	2V	2T	2R	2P	2N	2L	2J	2H	2F	2D	2B

( )...CANADA < >...WITH POWER STEERING [ ]...A/T

B1-14 POWER STEERING PRESSURE SWITCH (F)

L/Y

B1-15 SHORT CONNECTOR (F)

R/W	*
B	*

*	●
*	●

B1-16 AIRFLOW METER (F)

G	F	E	D	C	B	A
R/G	R	B/LG	LG/R	B/LG	B	LG

B1-17 WATER THERMOSENSOR (INJ)

B/LG	L/W

B1-18 THROTTLE SENSOR (F)

A/T

B/LG	R	R/B	LG/R

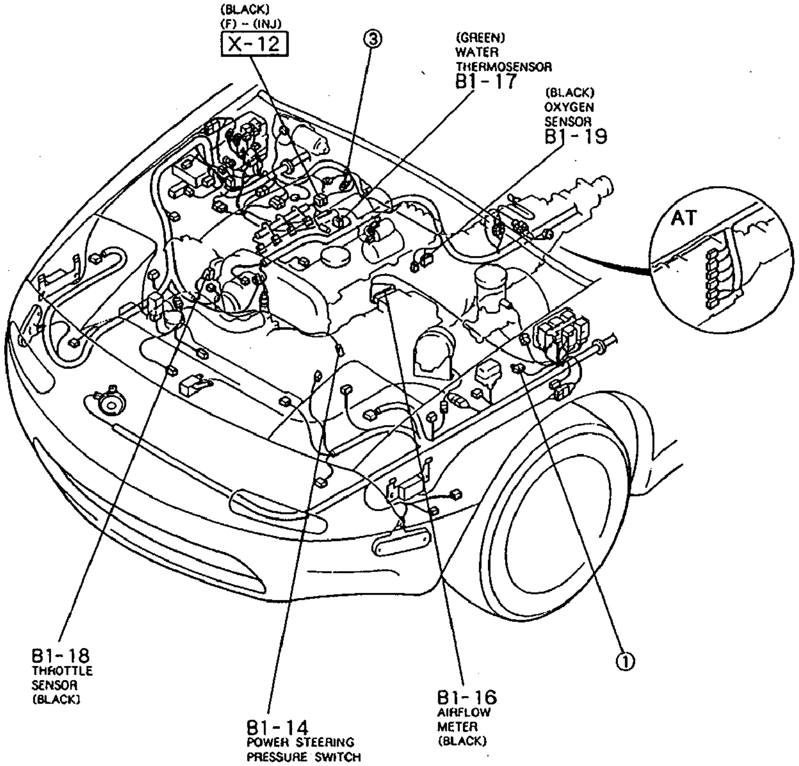
M/T

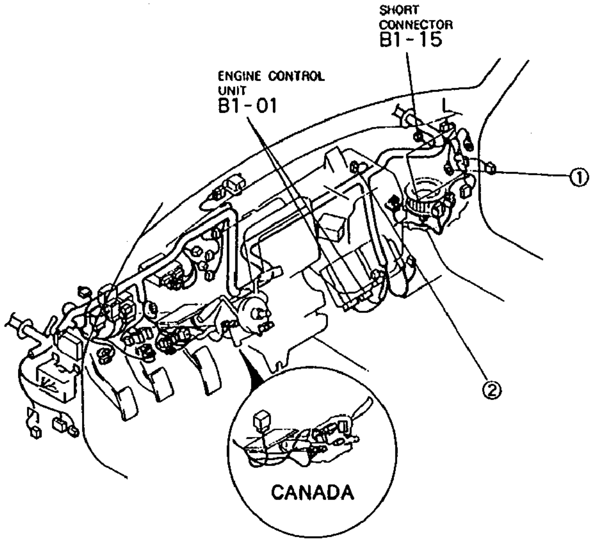
LG/W	B/LG	R

B1-19 OXYGEN SENSOR (F)

R/L

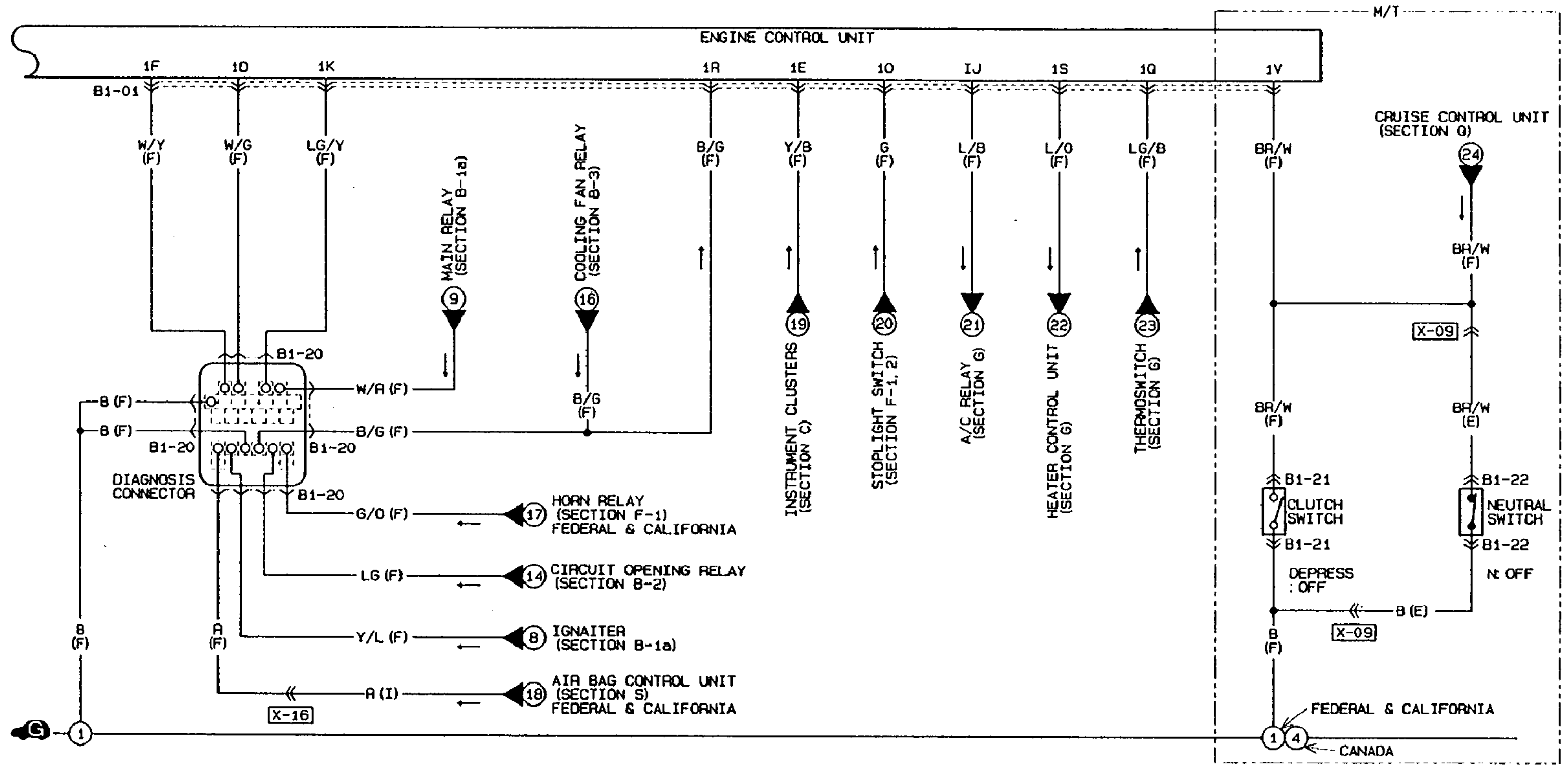
B-1b


(BLACK)
(F) – (INJ)
X-12
③
(GREEN)
WATER
THERMOSENSOR
B1-17
(BLACK)
OXYGEN
SENSOR
B1-19
AT
①
B1-18
THROTTLE
SENSOR
(BLACK)
B1-14
POWER STEERING
PRESSURE SWITCH
B1-16
AIRFLOW
METER
(BLACK)


SHORT
CONNECTOR
B1-15
ENGINE CONTROL
UNIT
B1-01
L
①
②
CANADA

■ENGINE CONTROL SYSTEM

B-1c


ENGINE CONTROL UNIT
B1-01
1F
1D
1K
1R
1E
1O
1J
1S
1Q
1V
W/Y (F)
W/G (F)
LG/Y (F)
B/G (F)
Y/B (F)
G (F)
L/B (F)
L/O (F)
LG/B (F)
BR/W (F)
M/T
CRUISE CONTROL UNIT (SECTION Q)
㉔
BR/W (F)
X-09
BR/W (F)
BR/W (E)
B1-21
CLUTCH SWITCH
B1-21
B1-22
NEUTRAL SWITCH
B1-22
DEPRESS : OFF
N: OFF
B (E)
X-09
B (F)
FEDERAL & CALIFORNIA
CANADA
1
4
⑨ MAIN RELAY (SECTION B-1a)
⑯ COOLING FAN RELAY (SECTION B-3)
⑲ INSTRUMENT CLUSTERS (SECTION C)
⑳ STOPLIGHT SWITCH (SECTION F-1, 2)
㉑ A/C RELAY (SECTION G)
㉒ HEATER CONTROL UNIT (SECTION G)
㉓ THERMOSWITCH (SECTION G)
B1-20
W/R (F)
B (F)
B (F)
B1-20
B1-20
B/G (F)
B/G (F)
DIAGNOSIS CONNECTOR
B1-20
G/O (F)
⑰ HORN RELAY (SECTION F-1) FEDERAL & CALIFORNIA
LG (F)
⑭ CIRCUIT OPENING RELAY (SECTION B-2)
Y/L (F)
⑧ IGNAITER (SECTION B-1a)
R (I)
X-16
⑱ AIR BAG CONTROL UNIT (SECTION S) FEDERAL & CALIFORNIA
B (F)
R (F)
G
1

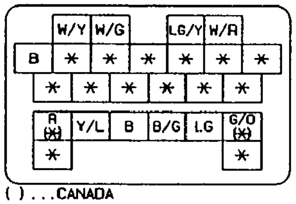
B1-01 ENGINE CONTROL UNIT (F)

1U	1S	1Q	1O	1M	1K	1I	1G	1E	1C	1A
R/B	L/O	LG/B	G	*	LG/Y	*	BR/Y	Y/B	V	L/R
BR/W [B/L]	*	B/G	* <L/Y>	R	*	L/B	BR	W/Y	W/G	W/R
1V	1T	1R	1P	1N	1L	1J	1H	1F	1D	1B

2Y	2W	2U	2S	2Q	2O	2M	2K	2I	2G	2E	2C	2A
*	L/O	Y	*	L/W	R	* [R/B]	LG/R	B/W	Y/L	W	B/LG	B
* [LG]	Y/R	Y/B	*	*	R/G	R/L	LG/W [*]	*	R/W (*)	*	B/LG	B
2Z	2X	2V	2T	2R	2P	2N	2L	2J	2H	2F	2D	2B

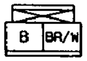
( )...CANADA < >...WITH POWER STEERING [ ]...A/T

B1-20 DIAGNOSIS CONNECTOR (F)

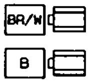

W/Y
W/G
LG/Y
W/R
B
*
*
*
*
*
*
*
*
*
*
*
*
R
(*)
Y/L
B
B/G
LG
G/O
(*)
*
*

( )...CANADA

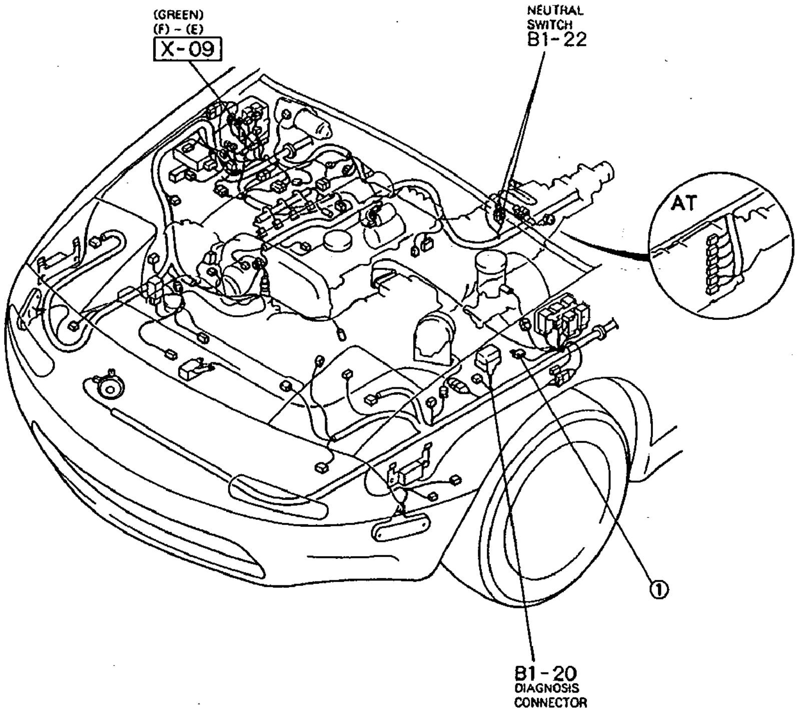
B1-21 CLUTCH SWITCH (F)

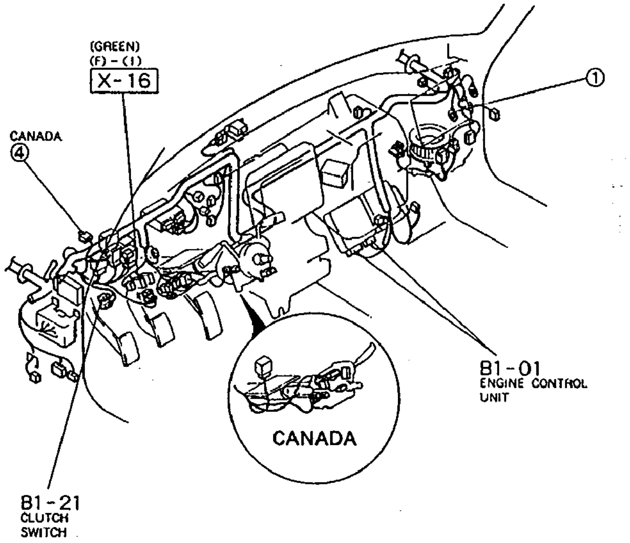


B1-22 NEUTRAL SWITCH (E)



B-1c


(GREEN)
(F) - (E)
X-09
NEUTRAL SWITCH
B1-22
AT
①
B1-20
DIAGNOSIS CONNECTOR


(GREEN)
(F) - (I)
X-16
CANADA
④
①
B1-01
ENGINE CONTROL UNIT
CANADA
B1-21
CLUTCH SWITCH

Terminal Voltage

MT

Terminal	Connection to	Abnormal voltage	Possible cause
1A	Battery	Always approx. 0V (Battery OK)	• ROOM 10A fuse burned • Open circuit in wiring from ROOM 10A fuse to ECU terminal 1A
1B	Main relay	Always approx. 0V	• Main relay malfunction (Refer to page F-140) • Open circuit in wiring from main relay to ECU terminal 1B
1C	Ignition switch (Start position)	Always approx. 0V (Starter turns)	• Open circuit in wiring from starter interlock switch to ECU terminal 1C
1D	Self-Diagnosis Checker (Monitor lamp)	Always approx. 0V	• Main relay malfunction (Refer to page F-140) • Open circuit in wiring from main relay to diagnosis connector terminal +B • Open or short circuit in wiring from diagnosis connector terminal MEN to ECU terminal 1D
		Always approx. 12V	• Poor connection at ECU connector • ECU malfunction
		Always approx. 5V	• ECU malfunction
1E	Malfunction indicator lamp (MIL)	Always below 2.5V (MIL always ON)	• Short circuit in wiring from combination meter to ECU terminal 1E • ECU malfunction
		Always below 2.5V (MIL never ON)	• Open circuit in wiring from combination meter to ECU terminal 1E
		Always approx. 12V	• Poor connection at ECU connector • ECU malfunction
1F	Self-Diagnosis Checker (Code No.)	Always below 2.5V (No display on Self-Diagnosis Checker)	• Main relay malfunction (Refer to page F-140) • Open circuit in wiring from main relay to diagnosis connector terminal +B
		Always below 2.5V ("88" is displayed and buzzer sounds continuously)	• Open or short circuit in wiring from diagnosis connector terminal FEN to ECU terminal 1F
		Always approx. 12V	• Poor connection at ECU connector • ECU malfunction
1G 1H	Igniter	Always approx. 0V	Refer to Code No.01 troubleshooting (Refer to page F-81)
1J	A/C relay	Always below 2.5V (A/C does not operate)	• A/C relay malfunction (Refer to page U-39) • Open circuit in wiring from main relay to A/C relay • Open circuit in wiring from A/C relay to ECU terminal 1J
		Always below 2.5V (A/C switch OFF but A/C operates)	• Short circuit in wiring from A/C relay to ECU terminal 1J • ECU malfunction
		Always approx. 12V	• A/C switch malfunction (Refer to page U-25) • Poor connection at ECU connector • ECU malfunction
1K	Diagnosis connector (Terminal TEN)	Always approx. 0V	• Short circuit in wiring from ECU terminal 1K to diagnosis connector terminal TEN
		Always approx. 12V	• Open circuit in wiring from ECU terminal 1K to diagnosis connector terminal TEN • Open circuit in wiring from diagnosis connector terminal GND to ground
1N	Throttle sensor (Idle terminal)	Always approx. 0V	• Throttle sensor misadjustment (Refer to page F-136) • Short circuit in wiring from ECU terminal 1N to throttle sensor • ECU malfunction
		Always approx. 12V	• Throttle sensor misadjustment (Refer to page F-136) • Open circuit in wiring from ECU terminal 1N to throttle sensor • Open circuit in wiring from throttle sensor to ground
1O	Stoplight switch	Always approx. 0V (Stoplights OK)	• Open circuit in wiring from stoplight switch to ECU terminal 1O
1P	P/S pressure switch	Always approx. 0V	• P/S pressure switch malfunction (Refer to page F-140) • Short circuit in wiring from ECU terminal 1P to P/S pressure switch • ECU malfunction
		Always approx. 12V	• P/S pressure switch malfunction (Refer to page F-140) • Open circuit in wiring from ECU terminal 1P to P/S pressure switch • Open circuit in wiring from P/S pressure switch to ground
1Q	A/C switch	Always approx. 0V (with blower switch ON)	• A/C switch malfunction (Refer to page U-25) • Short circuit in wiring from ECU terminal 1Q to A/C switch • Poor connection at ECU connector • ECU malfunction
		Always approx. 12V (with blower switch ON) (Blower fan OK)	• A/C switch malfunction (Refer to page U-25) • Open circuit in wiring from ECU terminal 1Q to A/C switch • Open circuit in wiring from A/C switch to blower control switch
1R	Fan switch	Always approx. 0V (Cooling fan OK)	• Open or short circuit in wiring from electric cooling fan relay to ECU terminal 1R • ECU malfunction
1S	Blower control switch	Always approx. 0V (Blower fan OK)	• Short circuit in wiring from blower control switch to ECU terminal 1S • Poor connection at ECU connector • ECU malfunction
		Always approx. 12V (Blower fan OK)	• Open circuit in wiring from blower control switch to ECU terminal 1S
1U	Headlight switch	Always approx. 0V (Headlights OK)	• Open or short circuit in wiring from headlight relay to ECU terminal 1U
1V	Neutral switch Clutch switch (M/T)	Always approx. 0V (M/T)	• Neutral switch malfunction (Refer to page F-140) • Clutch switch malfunction (Refer to page F-139) • Short circuit in wiring from ECU terminal 1V to neutral or clutch switch
		Always approx. 12V (M/T)	• Neutral switch malfunction (Refer to page F-140) • Clutch switch malfunction (Refer to page F-139) • Open circuit in wiring from ECU terminal 1V to neutral or clutch switch • Poor connection at ECU connector
	Inhibitor switch (4A/T)	Always approx. 0V (4A/T)	• Inhibitor switch malfunction (Refer to Section K) • Short circuit in wiring from inhibitor switch to ECU terminal 1V
		Always approx. 12V (4A/T)	• Inhibitor switch malfunction (Refer to Section K) • Open circuit in wiring from inhibitor switch to ECU terminal 1V
2A 2B 2C 2D	Ground	More than 0V	• Poor contact at ground terminal • Open circuit in wiring from ECU to ground
2E	Crank angle sensor (Ne-signal)	Always approx. 0V or approx. 5V	• Refer to Code No.02 troubleshooting (Refer to page F-82)
2G	Crank angle sensor (G-signal)	Always approx. 0V or approx. 5V	• Refer to Code No.03 troubleshooting (Refer to page F-82)
2H	Ground	Approx. 5V	• Open circuit in wiring from ECU terminal 2H to ground
	— (Federal and Canada)	Approx. 0V	• Short circuit in wiring from ECU terminal 2H to ground
2I	Igniter	Always Approx. 0V	• Refer to Code No.01 troubleshooting (Refer to page F-81)
2K	Airflow meter	Always approx. 0V	• Short circuit in wiring from ECU terminal 2K to airflow meter • Poor connection at ECU connector • ECU malfunction
		Below 4.5V or above 5.5V	• ECU malfunction
2L	Throttle sensor (Power terminal) (M/T)	Always approx. 0V	• Throttle sensor malfunction (Refer to page F-136) • Short circuit in wiring from ECU terminal 2L to throttle sensor • Poor connection at ECU connector • ECU malfunction
		Always approx. 5V	• Throttle sensor misadjustment (Refer to page F-136) • Open circuit in wiring from ECU terminal 2L to throttle sensor • Open circuit in wiring from throttle sensor to ground
2M	Throttle sensor (4A/T)	Always constant	• Open circuit in wiring from ECU terminal 2M to throttle sensor • Open circuit in wiring from ECU terminal 2K to throttle sensor • Open circuit in wiring from ECU terminal 2D to throttle sensor
		Always above 1V	• Throttle sensor misadjustment
2N	Oxygen sensor	0V after warm-up	• Refer to Code No.15 troubleshooting (Refer to page F-86)
		Always approx. 1V after warm-up	• Refer to Code No.17 troubleshooting (Refer to page F-86)
2O	Airflow meter	Always approx. 0V or approx. 5V	• Refer to Code No.08 troubleshooting (Refer to page F-84)
2P	Airflow meter (Intake air thermosensor)	Always approx. 0V or approx. 5V	• Refer to Code No.10 troubleshooting (Refer to page F-85)
			• Intake air thermosensor malfunction (Refer to page F-133)
2Q	Water thermosensor	Always approx. 0V or approx. 5V	• Refer to Code No.09 troubleshooting (Refer to page F-85)
			• Water thermosensor malfunction (Refer to page F-136)
2U 2V	Injector	Always approx. 0V	• Main relay malfunction (Refer to page F-140) Open or short circuit in wiring from injector to ECU terminal 2U or 2V
		Always approx. 12V	• ECU malfunction
2W	ISC valve	Always approx. 0V or approx. 12V	• Refer to Code No.34 troubleshooting (Refer to page F-87)
			• ISC valve malfunction (Refer to page F-99)
2X	Solenoid valve (Purge control)	Always approx. 0V or approx. 12V	• Refer to Code No.26 troubleshooting (Refer to page F-87)
			• Solenoid valve (Purge control) malfunction (Refer to page F-119)
2Z	4A/T control unit	Always approx. 12V	• ECU malfunction

Terminal Voltage

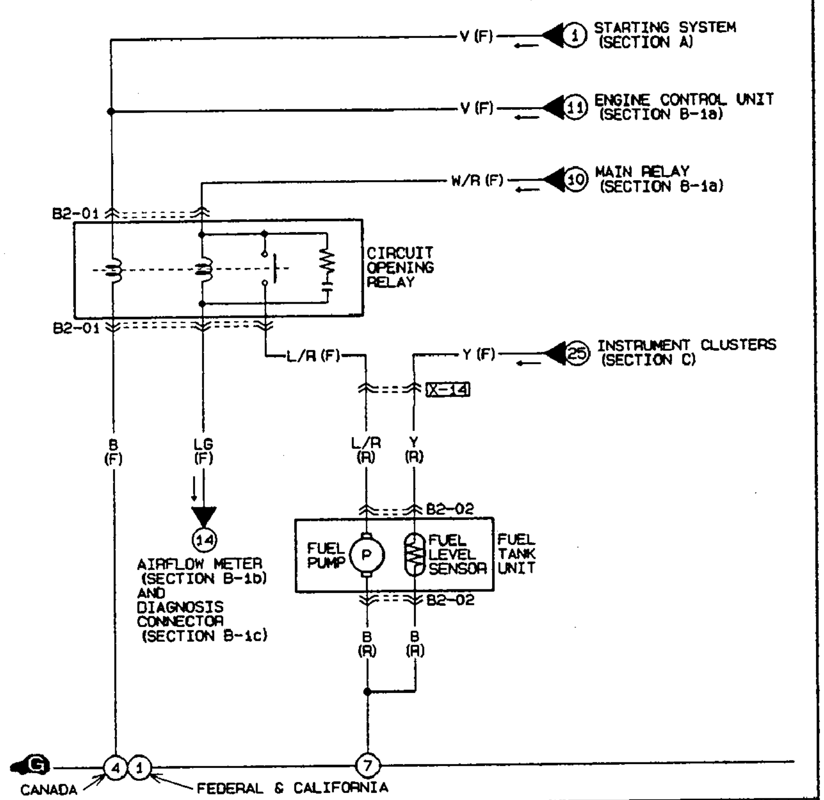
AT

Terminal	Input	Output	Connection to	Test condition	Voltage	Remark
1A	—	—	Battery	Constant	Approx. 12V	For backup
1B	○		Main relay	Ignition switch OFF	Approx. 0V	
				Ignition switch ON	Approx. 12V	
1C	○		Ignition switch (Start position)	While cranking	Approx. 10V	
				Ignition switch ON	Approx. 0V	
1D		○	Self-Diagnosis Checker (Monitor lamp)	Test switch at "SELF-TEST" Lamp illuminated for 3 sec. after ignition switch OFF→ON	Approx. 5V	With Self-Diagnosis Checker and System Selector
				Lamp not illuminated after 3 sec.	Approx. 12V	
				Test switch at "O_2 MONITOR" at idle Monitor lamp illuminated	Approx. 5V	
				Test switch at "O_2 MONITOR" at idle Monitor lamp not illuminated	Approx. 12V	
1E		○	Malfunction indicator lamp	Lamp illuminated for 3 sec. after ignition switch OFF→ON	Below 2.5V	With System Selector test switch at "SELF-TEST"
				Lamp not illuminated after 3 sec.	Approx. 12V	
				Lamp illuminated	Below 2.5V	
				Lamp not illuminated	Approx. 12V	
1F		○	Self-Diagnosis Checker (Code number)	Buzzer sound for 3 sec. after ignition switch OFF→ON	Below 2.5V	• With Self-Diagnosis Checker and System Selector • With System Selector test switch at "SELF-TEST"
				Buzzer not sounded after 3 sec.	Approx. 12V	
				Buzzer sounded	Below 2.5V	
				Buzzer not sounded	Approx. 12V	
1G		○	Igniter	Ignition switch ON	Approx. 0V	
				Idle	Approx. 0.2V	
1H		○	Igniter	Ignition switch ON	Approx. 0V	
				Idle	Approx. 0.2V	
1I	—	—	—	—	—	—
1J		○	A/C relay	Ignition switch ON	Approx. 12V	
				A/C switch ON at idle	Below 2.5V	
				A/C switch OFF at idle	Approx. 12V	
1K	○		Diagnosis connector	System Selector test switch at "O_2 MONITOR"	Approx. 12V	
				System Selector test switch at "SELF-TEST"	Approx. 0V	
1L	—	—	—	—	—	—
1M	—	—	—	—	—	—
1N	○		Throttle sensor (Idle point)	Accelerator pedal released	Approx. 0V	Ignition switch ON
				Accelerator pedal depressed	Approx. 12V	
1O	○		Stoplight switch	Brake pedal released	0V	
				Brake pedal depressed	Approx. 12V	
1P	○		P/S pressure switch	Ignition switch ON	Approx. 12V	
				P/S ON (at idle)	0V	
				P/S OFF (at idle)	Approx. 12V	
1Q	○		A/C switch	A/C switch ON (Ignition switch ON)	Below 2.5V	Blower motor ON
				A/C switch OFF (Ignition switch ON)	Approx. 12V	
1R	○		Fan switch	Fan operating (Engine coolant temperature over 97°C (207°F) or diagnosis connector terminal TFA grounded)	Approx. 0V	
				Fan not operating (Idle)	Approx. 12V	
1S	○		Blower control switch	Blower control switch at mid, high or super high position	Approx. 0V	Ignition switch ON
				Blower control switch OFF or low	Approx. 12V	
1T	—	—	—	—	—	
1U	○		Headlight switch	Headlights ON (Tail, parking, low beam/high beam)	Approx. 12V	
				Headlights OFF	0V	
1V	○		Neutral or clutch switch (M/T)	Neutral position or clutch pedal depressed	Approx. 0V	
				Other conditions	Approx. 12V	
			Inhibitor switch (4A/T)	N or P range	Approx. 0V	
				Other conditions	Approx. 12V	

Terminal	Input	Output	Connection to	Test condition	Voltage	Remark
2A	—	—	Ground (Injector)	Constant	0V	
2B	—	—	Ground (Output)	Constant	0V	
2C	—	—	Ground (CPU)	Constant	0V	
2D	—	—	Ground (Input)	Constant	0V	
2E	○		Crank angle sensor (Ne-signal)	Ignition switch ON	Approx. 0V or 5V	
				Idle	Approx. 2V	
2F	—	—	—	—	—	—
2G	○		Crank angle sensor (G-signal)	Ignition switch ON	Approx. 0V or 5V	
				Idle	Approx. 1.5V	
2H	○		Ground	Constant	0V	
			Open	Federal and Canada spec	Approx. 2V	
2I	○		Igniter	Ignition switch ON	Below 0.5V	
				Idle	Approx. 1V	
2K		○	Airflow meter	Constant	4.5—5.5V	
2L	○		Throttle sensor (Power terminal)	Accelerator pedal released	Approx. 5V	
				Accelerator pedal fully depressed	Approx. 0V	
2M	○		Throttle sensor (4A/T)	Accelerator pedal released	Approx. 0.5V	
				Accelerator pedal fully depressed	Approx. 4.0V	
2N	○		Oxygen sensor	Ignition switch ON	0V	
				Idle (Cold engine)	0V	
				Idle (After warm-up)	0—1V	
				Increase engine speed (After warm-up)	0.5—1V	
				Deceleration	0—0.4V	
2O	○		Airflow meter	Ignition switch ON	Approx. 3.8V	
				Idle	Approx. 3.3V	
2P	○		Airflow sensor (Intake air thermosensor)	At 20°C (68°F)	Approx. 2.5V	
2Q	○		Water thermosensor	Engine coolant temperature 20°C (68°F)	Approx. 2.5V	
				After warm-up	Approx. 0.4V	
2R	—	—	—	—	—	—
2S	—	—	—	—	—	—
2T	—	—	—	—	—	—
2U		○	Injector (Nos.1, 3) (Nos.2, 4)	Ignition switch ON	Approx. 12V	* Engine Signal Monitor: Green and red lights flash
				Idle	Approx. 12V*	
2V		○		Deceleration from 3,000 rpm to 1,900 rpm (After warm-up)	Approx. 12V	
2W		○	ISC valve	Ignition switch ON	Approx. 7V	
				Idle	Approx. 9V	
2X		○	Solenoid valve (Purge control)	Ignition switch ON	Approx. 12V	
				Idle	Approx. 12V	
2Y	—	—	—	—	—	—
2Z		○	4A/T control unit	Ignition switch ON	Approx. 0V	

■ FUEL CONTROL SYSTEM

B-2


V (F)
① STARTING SYSTEM (SECTION A)
V (F)
⑪ ENGINE CONTROL UNIT (SECTION B-1a)
W/R (F)
⑩ MAIN RELAY (SECTION B-1a)
B2-01
CIRCUIT OPENING RELAY
B2-01
L/R (F)
Y (F)
㉕ INSTRUMENT CLUSTERS (SECTION C)
X-14
B (F)
LG (F)
L/R (R)
Y (R)
B2-02
FUEL PUMP
P
FUEL LEVEL SENSOR
FUEL TANK UNIT
B2-02
⑭ AIRFLOW METER (SECTION B-1b) AND DIAGNOSIS CONNECTOR (SECTION B-1c)
B (R)
B (R)
G
CANDA
④ ①
⑦
CANADA
FEDERAL & CALIFORNIA

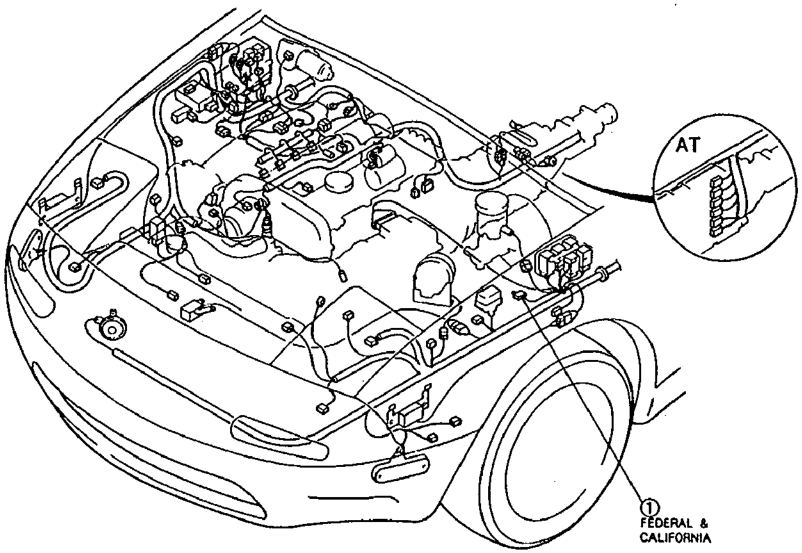
B2-01 CIRCUIT OPENING RELAY (F)

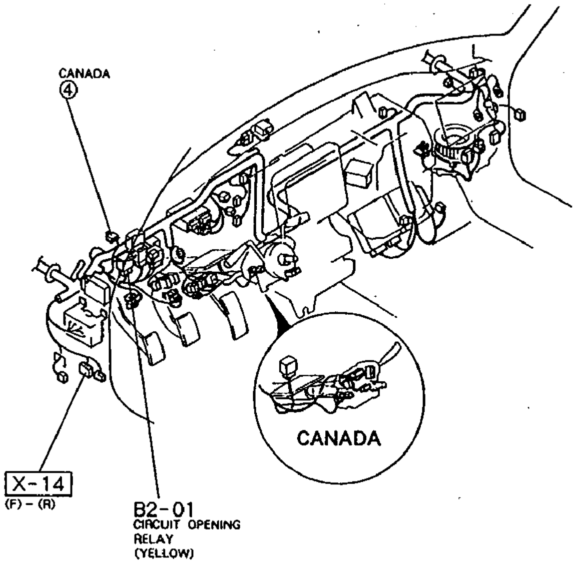
V	W/R	L/R
B	*	LG

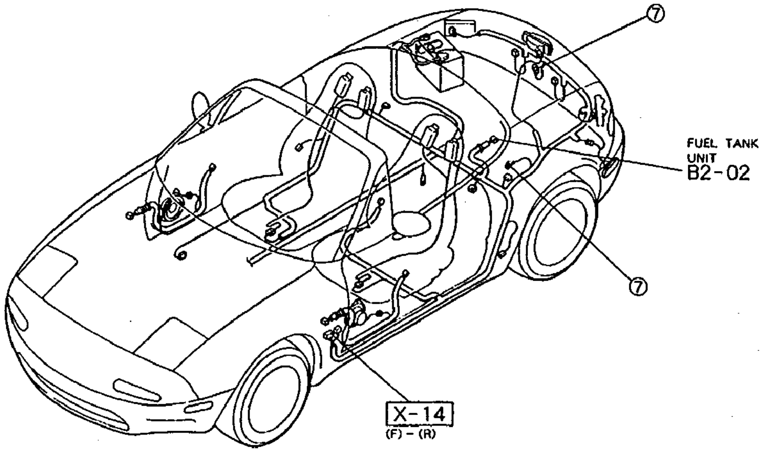
B2-02 FUEL TANK UNIT (R)

Y	B
B	L/R

B-2

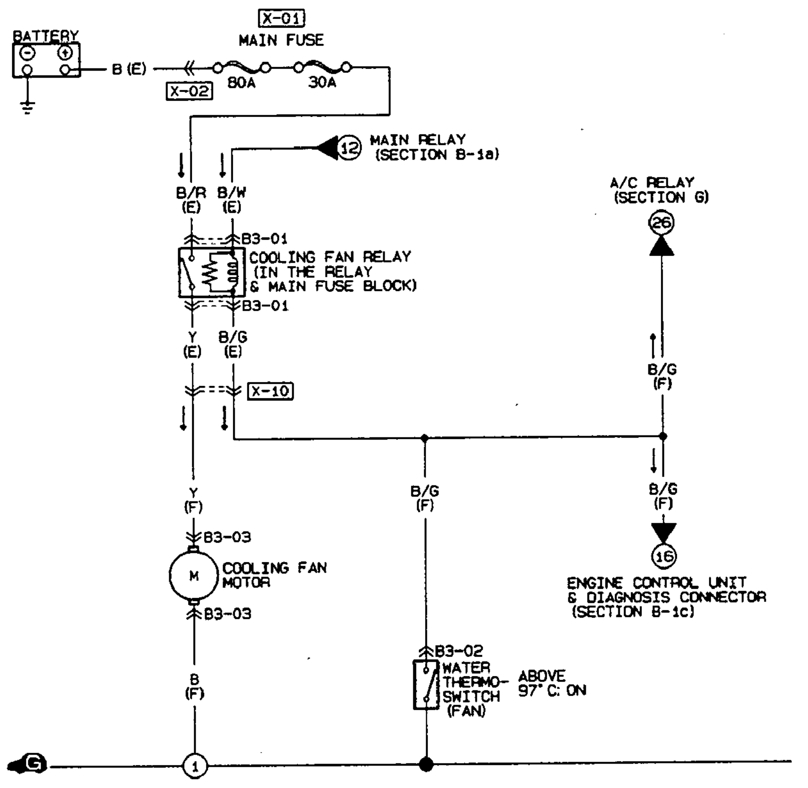

AT
①
FEDERAL &
CALIFORNIA

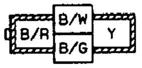
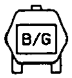
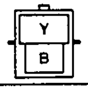

CANADA
④
X-14
(F) – (R)
B2-01
CIRCUIT OPENING
RELAY
(YELLOW)
CANADA


⑦
FUEL TANK
UNIT
B2-02
⑦
X-14
(F) – (R)

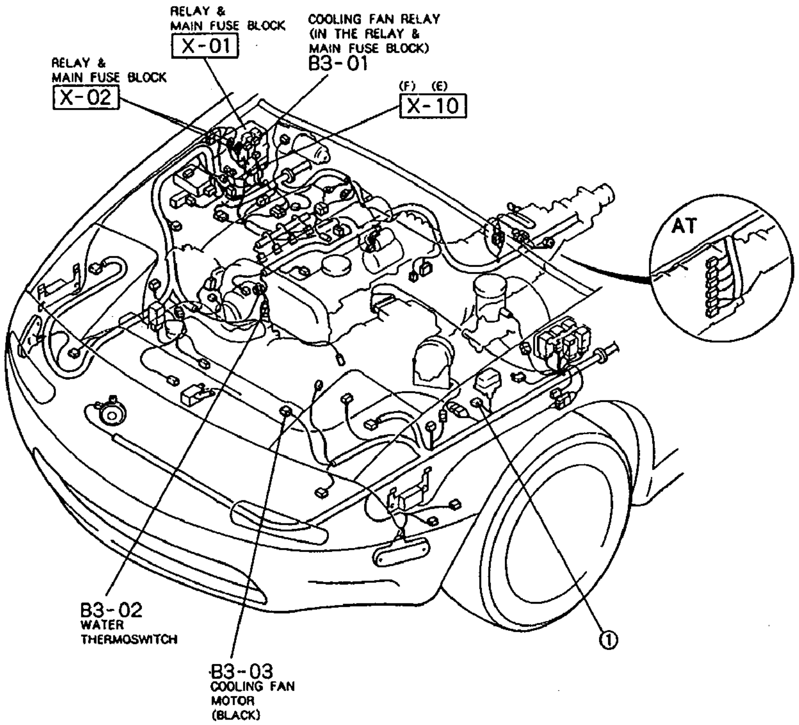
■ COOLING FAN SYSTEM

B-3


X-01
MAIN FUSE
BATTERY
B (E)
X-02
80A
30A
12
MAIN RELAY (SECTION B-1a)
B/R (E)
B/W (E)
B3-01
COOLING FAN RELAY (IN THE RELAY & MAIN FUSE BLOCK)
B3-01
Y (E)
B/G (E)
X-10
A/C RELAY (SECTION G)
26
B/G (F)
Y (F)
B/G (F)
B/G (F)
16
ENGINE CONTROL UNIT & DIAGNOSIS CONNECTOR (SECTION B-1c)
B3-03
M
COOLING FAN MOTOR
B3-03
B (F)
B3-02
WATER THERMO-SWITCH (FAN)
ABOVE 97°C: ON
G
1

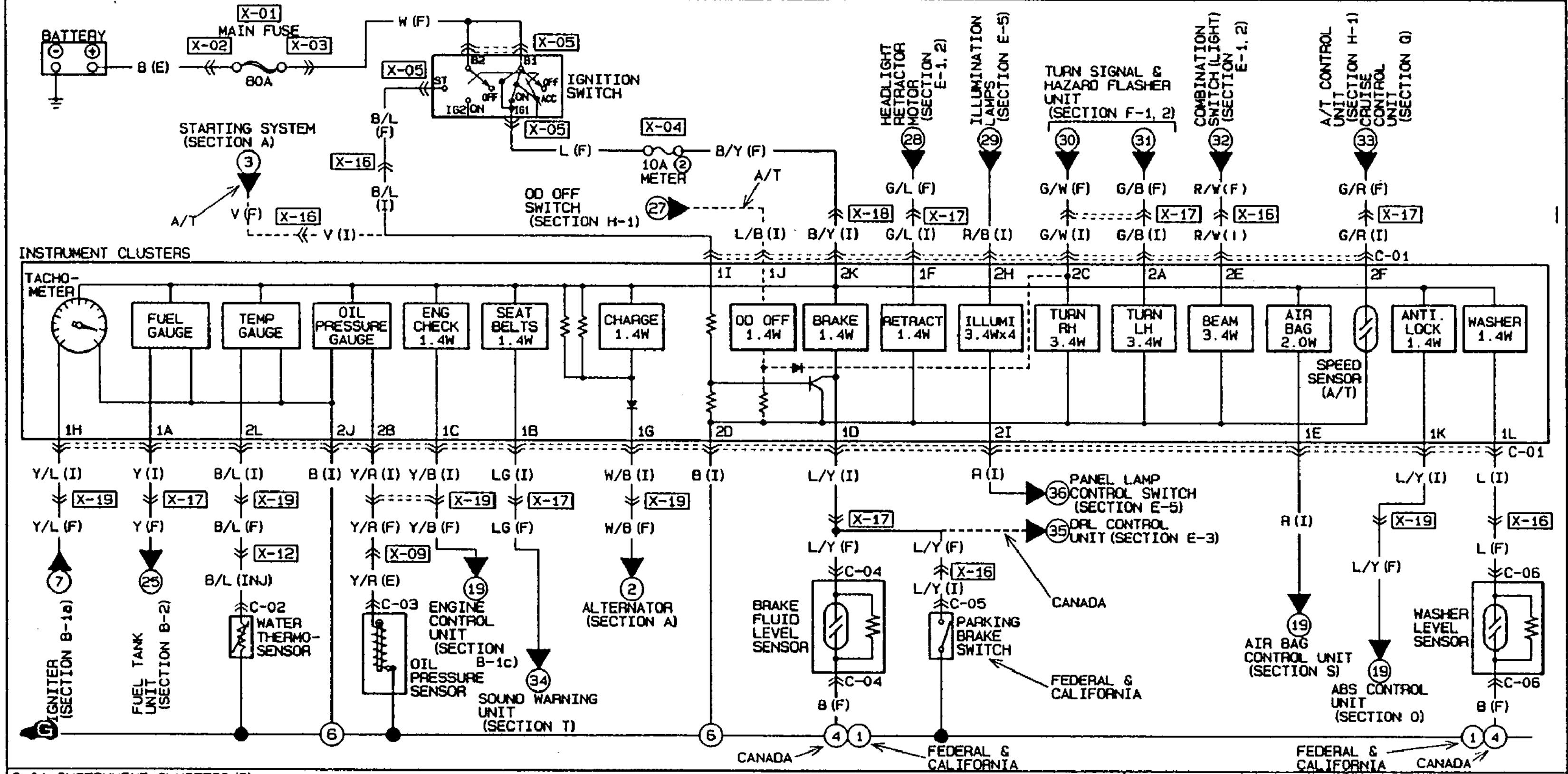
B3-01 COOLING FAN RELAY (E) (IN THE RELAY & MAIN FUSE BLOCK)  	B3-02 WATER THERMO-SWITCH (FAN) (F)  	B3-03 COOLING FAN MOTOR (F) 

B-3


RELAY & MAIN FUSE BLOCK
X-01
COOLING FAN RELAY (IN THE RELAY & MAIN FUSE BLOCK)
B3-01
RELAY & MAIN FUSE BLOCK
X-02
(F) (E)
X-10
AT
B3-02
WATER THERMOSWITCH
B3-03
COOLING FAN MOTOR (BLACK)
①

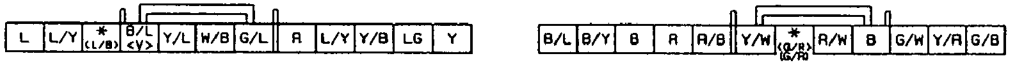
■ INSTRUMENT CLUSTERS

C

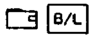

BATTERY
B (E)
X-01
MAIN FUSE
X-02
X-03
80A
W (F)
X-05
X-05
ST
B2
B1
IG2
ON
OFF
ON
IG1
OFF
ACC
IGNITION SWITCH
X-05
X-04
L (F)
10A ②
METER
B/Y (F)
STARTING SYSTEM (SECTION A)
③
A/T
V (F)
X-16
V (I)
B/L (F)
X-16
B/L (I)
OD OFF SWITCH (SECTION H-1)
㉗
A/T
HEADLIGHT RETRACTOR MOTOR (SECTION E-1, 2)
㉘
ILLUMINATION LAMPS (SECTION E-5)
㉙
TURN SIGNAL & HAZARD FLASHER UNIT (SECTION F-1, 2)
㉚
㉛
COMBINATION SWITCH (LIGHT) (SECTION E-1, 2)
㉜
A/T CONTROL UNIT (SECTION H-1) CRUISE CONTROL UNIT (SECTION Q)
㉝
G/L (F)
G/W (F)
G/B (F)
R/W (F)
G/R (F)
X-18
X-17
X-17
X-16
X-17
L/B (I)
B/Y (I)
G/L (I)
R/B (I)
G/W (I)
G/B (I)
R/W (I)
G/R (I)
C-01
INSTRUMENT CLUSTERS
1I
1J
2K
1F
2H
2C
2A
2E
2F
TACHO-METER
FUEL GAUGE
TEMP GAUGE
OIL PRESSURE GAUGE
ENG CHECK 1.4W
SEAT BELTS 1.4W
CHARGE 1.4W
OD OFF 1.4W
BRAKE 1.4W
RETRACT 1.4W
ILLUMI 3.4Wx4
TURN RH 3.4W
TURN LH 3.4W
BEAM 3.4W
AIR BAG 2.0W
SPEED SENSOR (A/T)
ANTI. LOCK 1.4W
WASHER 1.4W
1H
1A
2L
2J
2B
1C
1B
1G
2D
1D
2I
1E
1K
1L
C-01
Y/L (I)
Y (I)
B/L (I)
B (I)
Y/R (I)
Y/B (I)
LG (I)
W/B (I)
B (I)
L/Y (I)
R (I)
L/Y (I)
L (I)
X-19
X-17
X-19
X-19
X-17
X-19
X-19
X-16
Y/L (F)
Y (F)
B/L (F)
Y/R (F)
Y/B (F)
LG (F)
W/B (F)
X-12
X-09
X-17
⑦
㉕
B/L (INJ)
Y/R (E)
②
C-02
WATER THERMO-SENSOR
C-03
ENGINE CONTROL UNIT (SECTION B-1c)
⑲
OIL PRESSURE SENSOR
㉞
SOUND WARNING UNIT (SECTION T)
ALTERNATOR (SECTION A)
IGNITER (SECTION B-1a)
FUEL TANK UNIT (SECTION B-2)
PANEL LAMP CONTROL SWITCH (SECTION E-5)
㊱
DRL CONTROL UNIT (SECTION E-3)
㉟
L/Y (F)
L/Y (F)
X-16
L/Y (I)
C-04
C-05
BRAKE FLUID LEVEL SENSOR
PARKING BRAKE SWITCH
C-04
B (F)
CANADA
FEDERAL & CALIFORNIA
CANADA
FEDERAL & CALIFORNIA
R (I)
AIR BAG CONTROL UNIT (SECTION S)
⑲
L/Y (F)
ABS CONTROL UNIT (SECTION O)
⑲
L (F)
C-06
WASHER LEVEL SENSOR
C-06
B (F)
⑥
⑥
④
①
①
④
G
FEDERAL & CALIFORNIA
CANADA

C-01 INSTRUMENT CLUSTERS (I)

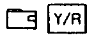
< >...A/T
( )...WITH CRUISE CONTROL


L
L/Y
* (L/B)
B/L <Y>
Y/L
W/B
G/L
R
L/Y
Y/B
LG
Y
1L
1K
1J
1I
1H
1G
1F
1E
1D
1C
1B
1A
B/L
B/Y
B
R
R/B
Y/W
* <G/R> (G/R)
R/W
B
G/W
Y/R
G/B
2L
2K
2J
2I
2H
2G
2F
2E
2D
2C
2B
2A

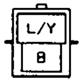
C-02 WATER THERMOSENSOR (INJ)



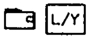
C-03 OIL PRESSURE SENSOR (E)



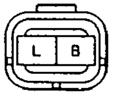
C-04 BRAKE FLUID LEVEL SENSOR (F)

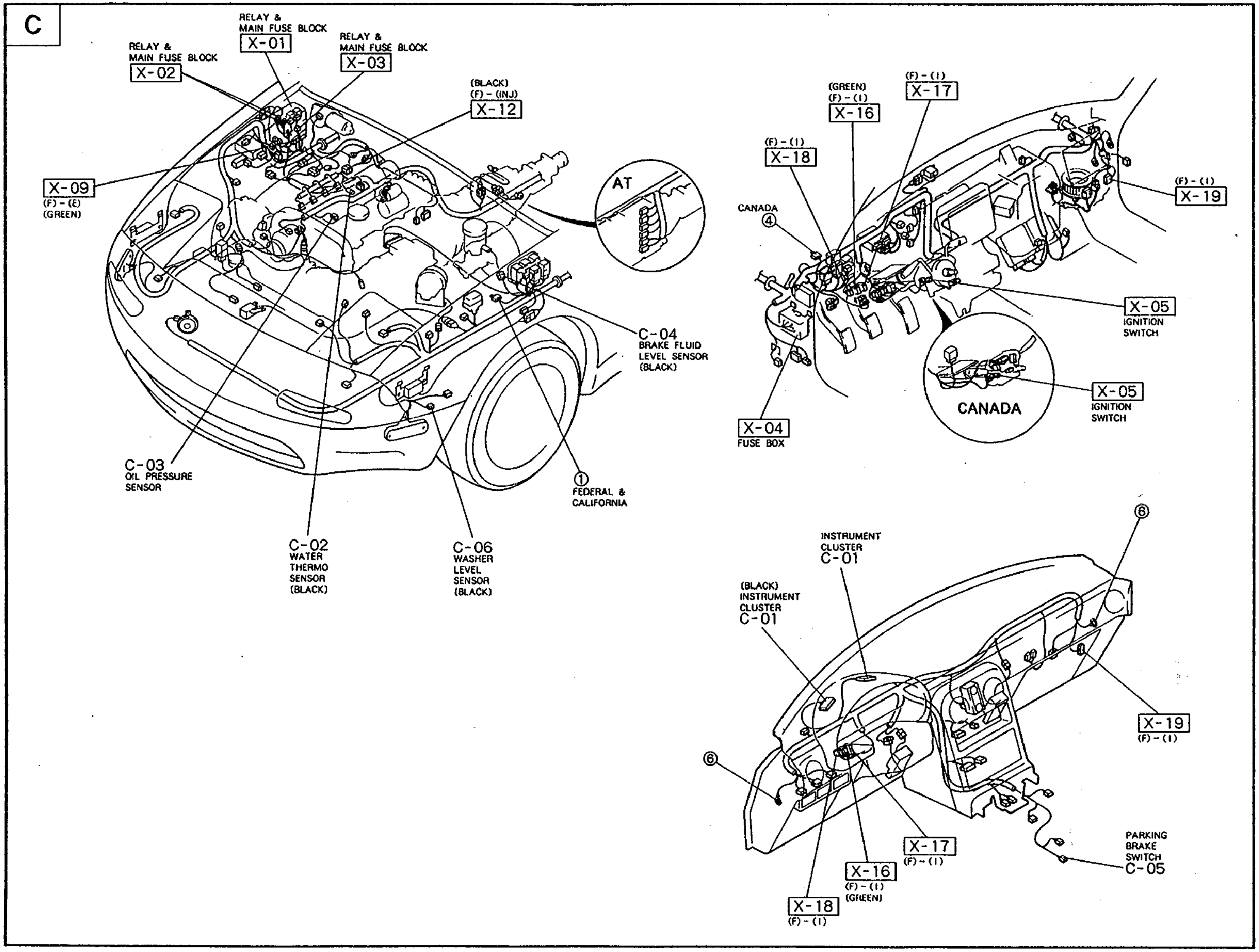


C-05 PARKING BRAKE SWITCH (I)

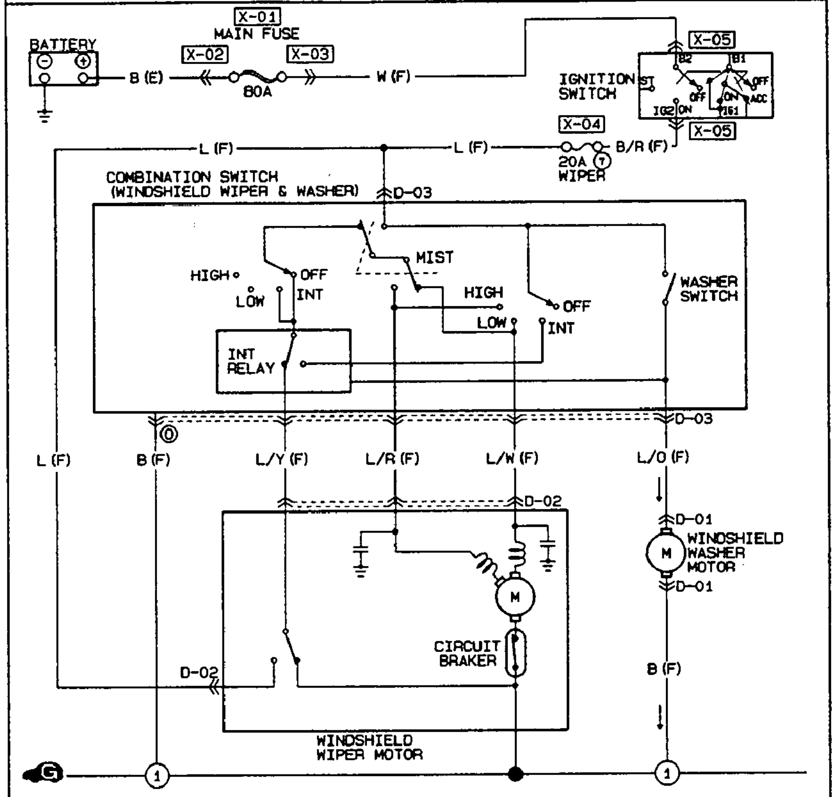


C-06 WASHER LEVEL SENSOR (F)

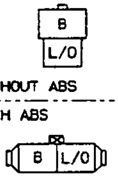



C
RELAY &
MAIN FUSE BLOCK
X-01
RELAY &
MAIN FUSE BLOCK
X-02
RELAY &
MAIN FUSE BLOCK
X-03
(BLACK)
(F) - (INJ)
X-12
X-09
(F) - (E)
(GREEN)
AT
C-04
BRAKE FLUID
LEVEL SENSOR
(BLACK)
C-03
OIL PRESSURE
SENSOR
①
FEDERAL &
CALIFORNIA
C-02
WATER
THERMO
SENSOR
(BLACK)
C-06
WASHER
LEVEL
SENSOR
(BLACK)
(F) - (I)
X-17
(GREEN)
(F) - (I)
X-16
(F) - (I)
X-18
CANADA
④
(F) - (I)
X-19
X-05
IGNITION
SWITCH
CANADA
X-05
IGNITION
SWITCH
X-04
FUSE BOX
⑥
INSTRUMENT
CLUSTER
C-01
(BLACK)
INSTRUMENT
CLUSTER
C-01
X-19
(F) - (I)
⑥
X-17
(F) - (I)
X-16
(F) - (I)
(GREEN)
X-18
(F) - (I)
PARKING
BRAKE
SWITCH
C-05

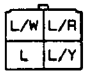
FEDERAL & CALIFORNIA ■ WINDSHIELD WIPER & WASHER D-1


X-01
MAIN FUSE
BATTERY
X-02
X-03
B (E)
80A
W (F)
X-05
B2
B1
IGNITION SWITCH
ST
OFF
ON
ACC
IG2
IG1
X-04
X-05
L (F)
L (F)
20A ⑦ WIPER
B/R (F)
COMBINATION SWITCH (WINDSHIELD WIPER & WASHER)
D-03
MIST
HIGH
OFF
LOW
INT
HIGH
OFF
LOW
INT
WASHER SWITCH
INT RELAY
⓪
D-03
L (F)
B (F)
L/Y (F)
L/R (F)
L/W (F)
L/O (F)
D-02
D-01
WINDSHIELD WASHER MOTOR
M
D-01
M
CIRCUIT BRAKER
D-02
B (F)
WINDSHIELD WIPER MOTOR
G
1
1

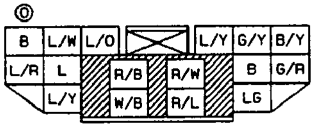
D-01 WINDSHIELD WASHER MOTOR (F)


B
L/O
WITHOUT ABS
WITH ABS
B
L/O

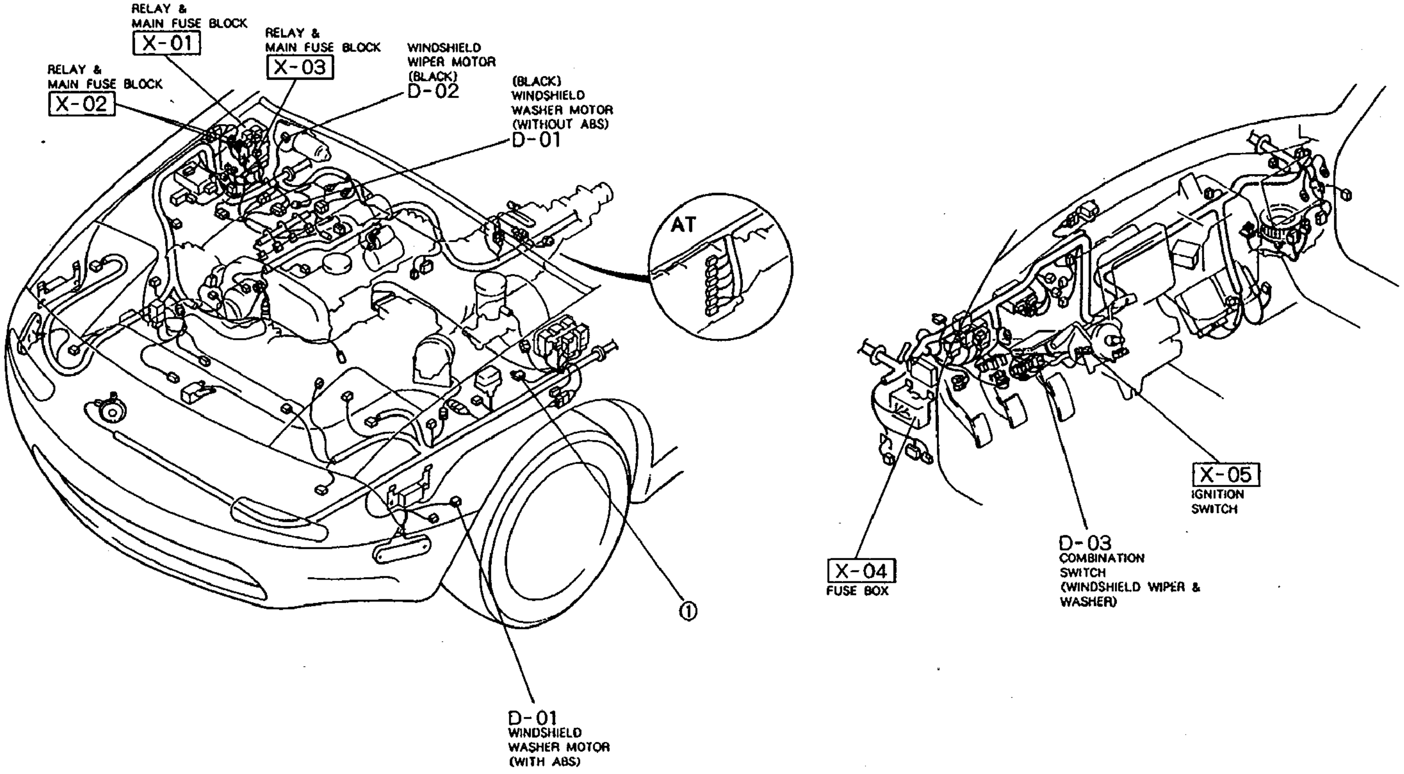
D-02 WINDSHIELD WIPER MOTOR (F)



D-03 COMBINATION SWITCH (WINDSHIELD WIPER & WASHER) (F)

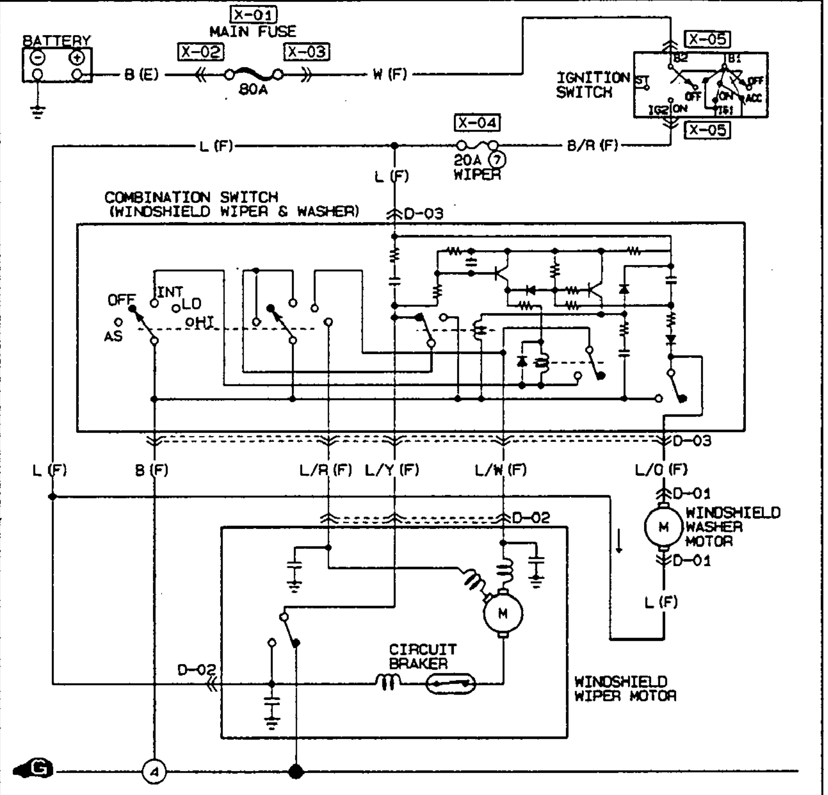

⓪
B
L/W
L/O
L/Y
G/Y
B/Y
L/R
L
R/B
R/W
B
G/R
L/Y
W/B
R/L
LG

D-1

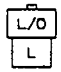

RELAY & MAIN FUSE BLOCK X-01
RELAY & MAIN FUSE BLOCK X-03
RELAY & MAIN FUSE BLOCK X-02
WINDSHIELD WIPER MOTOR (BLACK) D-02
(BLACK) WINDSHIELD WASHER MOTOR (WITHOUT ABS) D-01
AT
①
D-01 WINDSHIELD WASHER MOTOR (WITH ABS)
X-04 FUSE BOX
D-03 COMBINATION SWITCH (WINDSHIELD WIPER & WASHER)
X-05 IGNITION SWITCH

CANADA ■ WINDSHIELD WIPER &WASHER

D-2

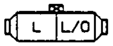

X-01
MAIN FUSE
BATTERY
X-02
X-03
B (E)
80A
W (F)
X-05
B2
B1
IGNITION SWITCH
ST
OFF
ON
ACC
IG2
IG1
X-05
X-04
L (F)
20A ⑦
WIPER
B/R (F)
L (F)
COMBINATION SWITCH
(WINDSHIELD WIPER & WASHER)
D-03
OFF
INT
LO
AS
HI
D-03
L (F)
B (F)
L/R (F)
L/Y (F)
L/W (F)
L/O (F)
D-01
WINDSHIELD WASHER MOTOR
M
D-01
L (F)
D-02
M
CIRCUIT BRAKER
D-02
WINDSHIELD WIPER MOTOR
G
4

D-01 WINDSHIELD WASHER MOTOR (F)

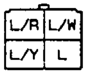


WITHOUT ABS

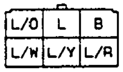
WITH ABS



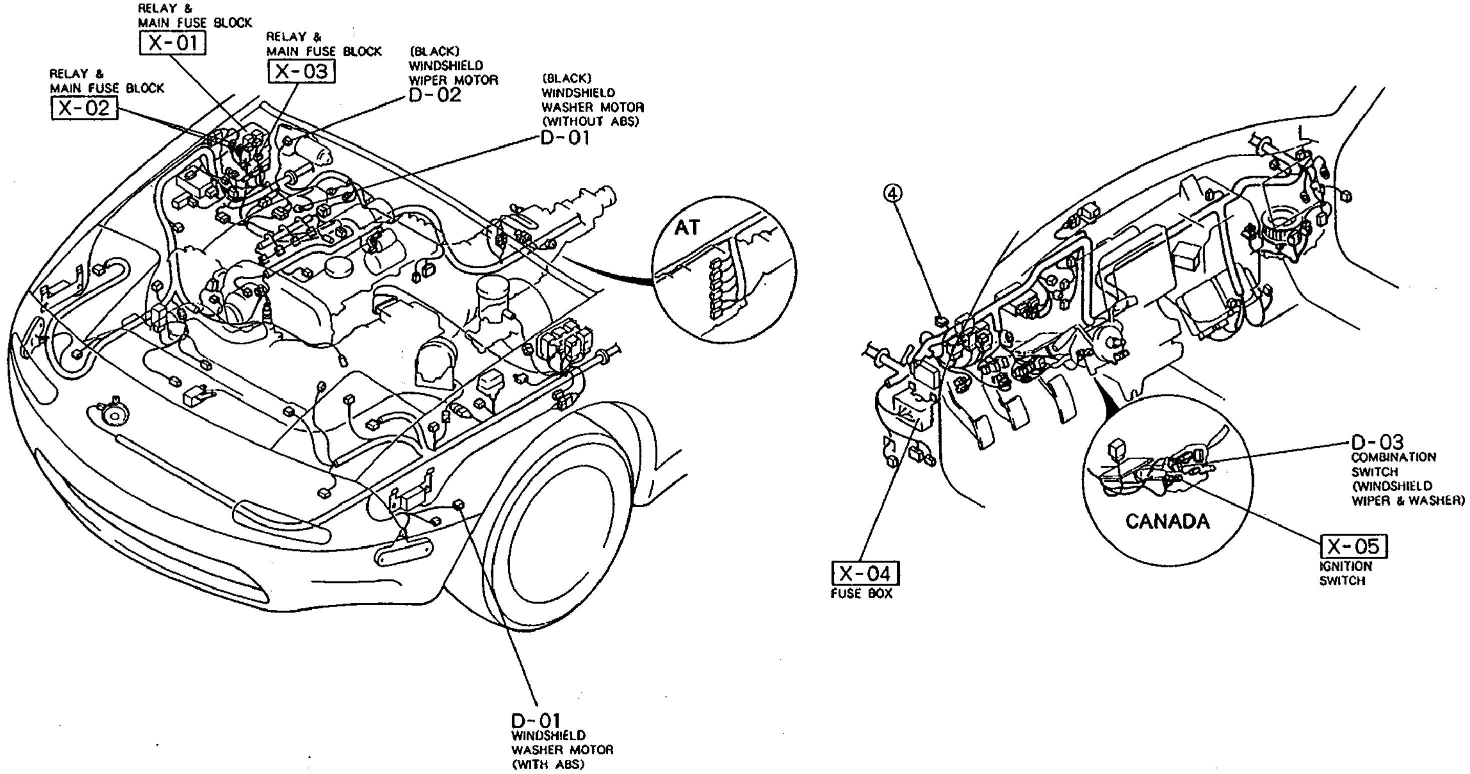
D-02 WINDSHIELD WIPER MOTOR (F)



D-03 COMBINATION SWITCH (WINDSHIELD WIPER & WASHER) (F)

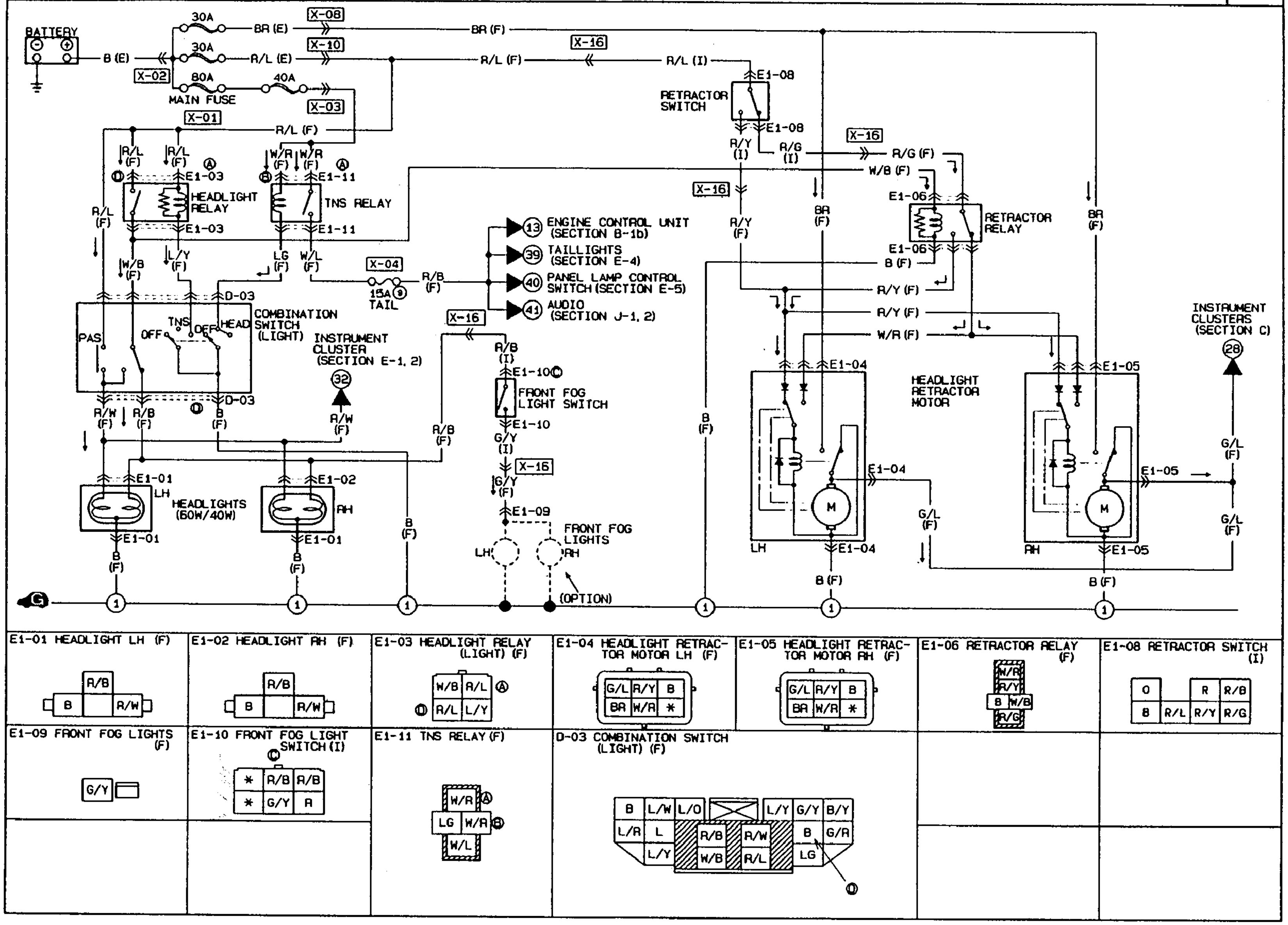

L/O
L
B
L/W
L/Y
L/R

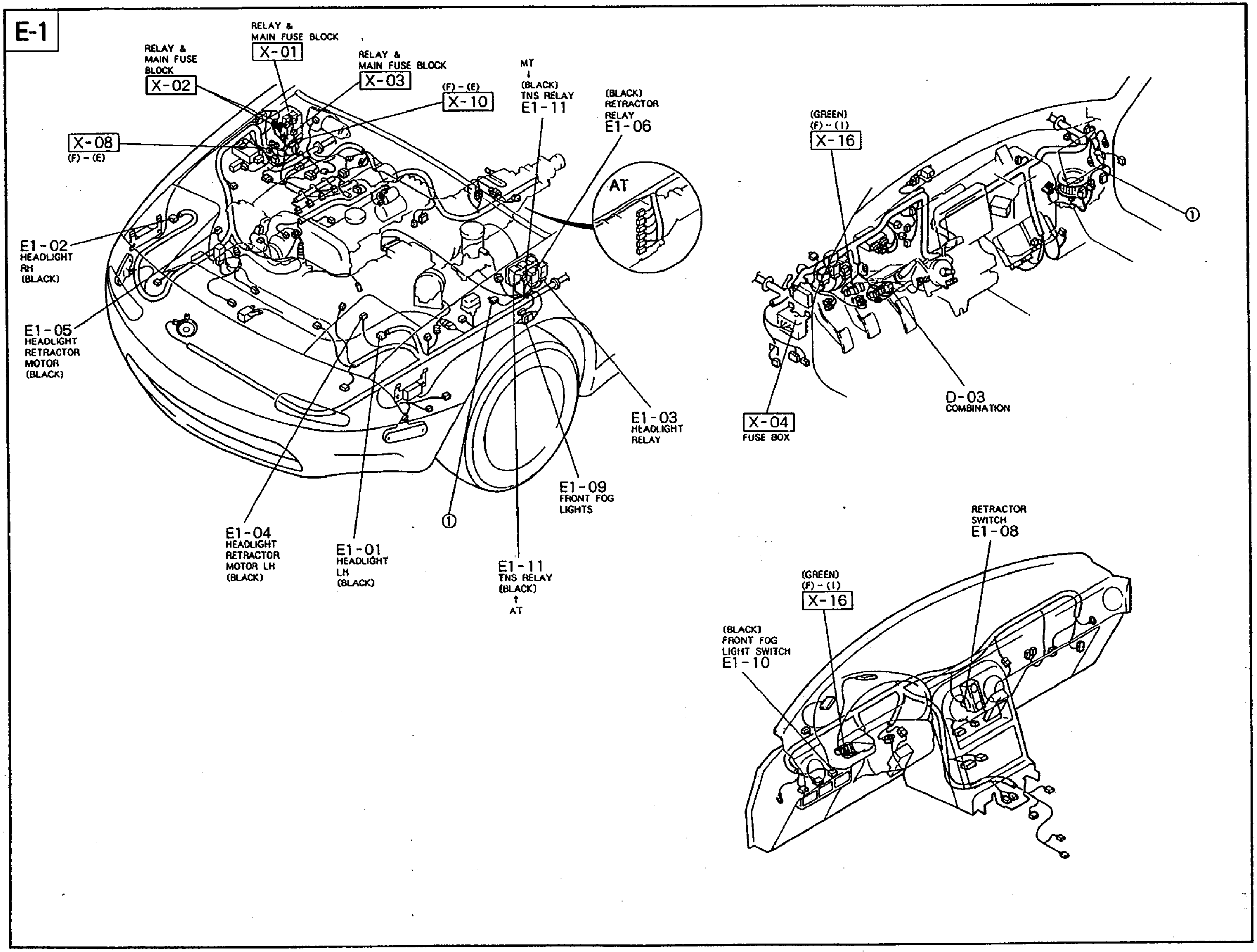
D-2


RELAY & MAIN FUSE BLOCK
X-01
RELAY & MAIN FUSE BLOCK
X-03
(BLACK) WINDSHIELD WIPER MOTOR
D-02
(BLACK) WINDSHIELD WASHER MOTOR (WITHOUT ABS)
D-01
RELAY & MAIN FUSE BLOCK
X-02
AT
D-01
WINDSHIELD WASHER MOTOR (WITH ABS)
④
D-03
COMBINATION SWITCH (WINDSHIELD WIPER & WASHER)
CANADA
X-05
IGNITION SWITCH
X-04
FUSE BOX

FEDERAL & CALIFORNIA ▪HEADLIGHTS ▪FRONT FOG LIGHTS (OPTION) ▪HEADLIGHT RETRACTOR MOTOR

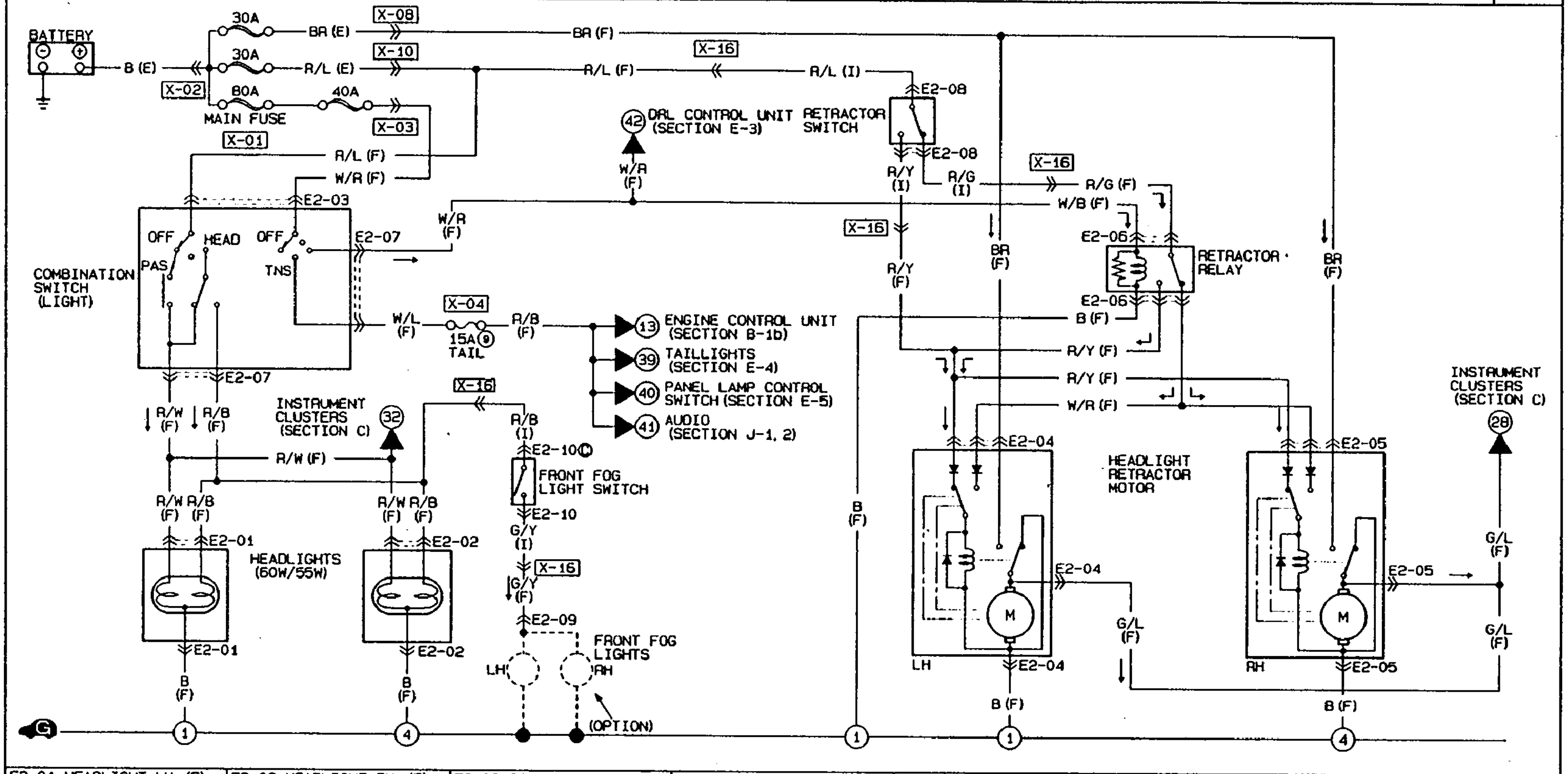
E-1

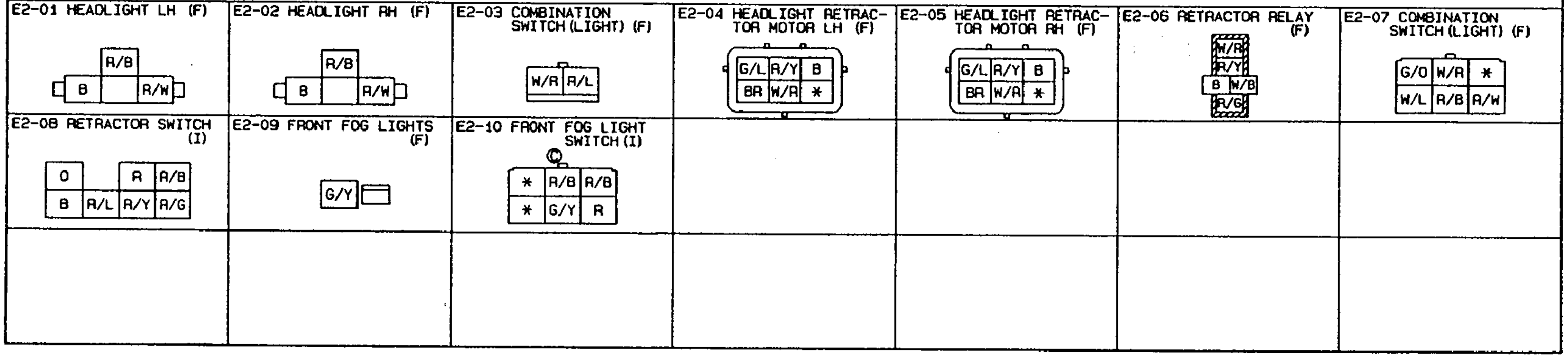

BATTERY
B (E)
X-02
30A
BR (E)
X-08
BR (F)
30A
R/L (E)
X-10
R/L (F)
X-16
R/L (I)
80A
40A
MAIN FUSE
X-03
X-01
R/L (F)
E1-08
RETRACTOR SWITCH
R/Y (I)
R/G (I)
X-16
R/G (F)
W/B (F)
E1-06
RETRACTOR RELAY
B (F)
R/Y (F)
R/Y (F)
W/R (F)
BR (F)
BR (F)
R/Y (F)
E1-03
HEADLIGHT RELAY
TNS RELAY
E1-11
Ⓐ
Ⓑ
Ⓓ
W/R (F)
L/Y (F)
W/B (F)
LG (F)
W/L (F)
X-04
15A ⑨ TAIL
R/B (F)
⑬ ENGINE CONTROL UNIT (SECTION B-1b)
㊴ TAILLIGHTS (SECTION E-4)
㊵ PANEL LAMP CONTROL SWITCH (SECTION E-5)
㊶ AUDIO (SECTION J-1, 2)
D-03
COMBINATION SWITCH (LIGHT)
PAS
OFF
TNS
OFF
HEAD
INSTRUMENT CLUSTER (SECTION E-1, 2)
㉜
R/W (F)
R/B (F)
B (F)
X-16
R/B (I)
E1-10 Ⓒ
FRONT FOG LIGHT SWITCH
G/Y (I)
X-16
G/Y (F)
E1-09
FRONT FOG LIGHTS
LH
RH
(OPTION)
E1-01
E1-02
HEADLIGHTS (60W/40W)
LH
RH
B (F)
B (F)
B (F)
B (F)
Ⓖ
①
E1-04
E1-05
HEADLIGHT RETRACTOR MOTOR
M
LH
RH
G/L (F)
G/L (F)
G/L (F)
INSTRUMENT CLUSTERS (SECTION C)
㉘
B (F)
B (F)
E1-01 HEADLIGHT LH (F)
R/B
B
R/W
E1-02 HEADLIGHT RH (F)
R/B
B
R/W
E1-03 HEADLIGHT RELAY (LIGHT) (F)
W/B
R/L
Ⓐ
Ⓓ
R/L
L/Y
E1-04 HEADLIGHT RETRACTOR MOTOR LH (F)
G/L
R/Y
B
BR
W/R
*
E1-05 HEADLIGHT RETRACTOR MOTOR RH (F)
G/L
R/Y
B
BR
W/R
*
E1-06 RETRACTOR RELAY (F)
W/R
R/Y
B
W/B
R/G
E1-08 RETRACTOR SWITCH (I)
O
R
R/B
B
R/L
R/Y
R/G
E1-09 FRONT FOG LIGHTS (F)
G/Y
E1-10 FRONT FOG LIGHT SWITCH (I)
Ⓒ
*
R/B
R/B
*
G/Y
R
E1-11 TNS RELAY (F)
W/R
Ⓐ
LG
W/R
Ⓑ
W/L
D-03 COMBINATION SWITCH (LIGHT) (F)
B
L/W
L/O
L/Y
G/Y
B/Y
L/R
L
R/B
R/W
B
G/R
L/Y
W/B
R/L
LG
Ⓓ

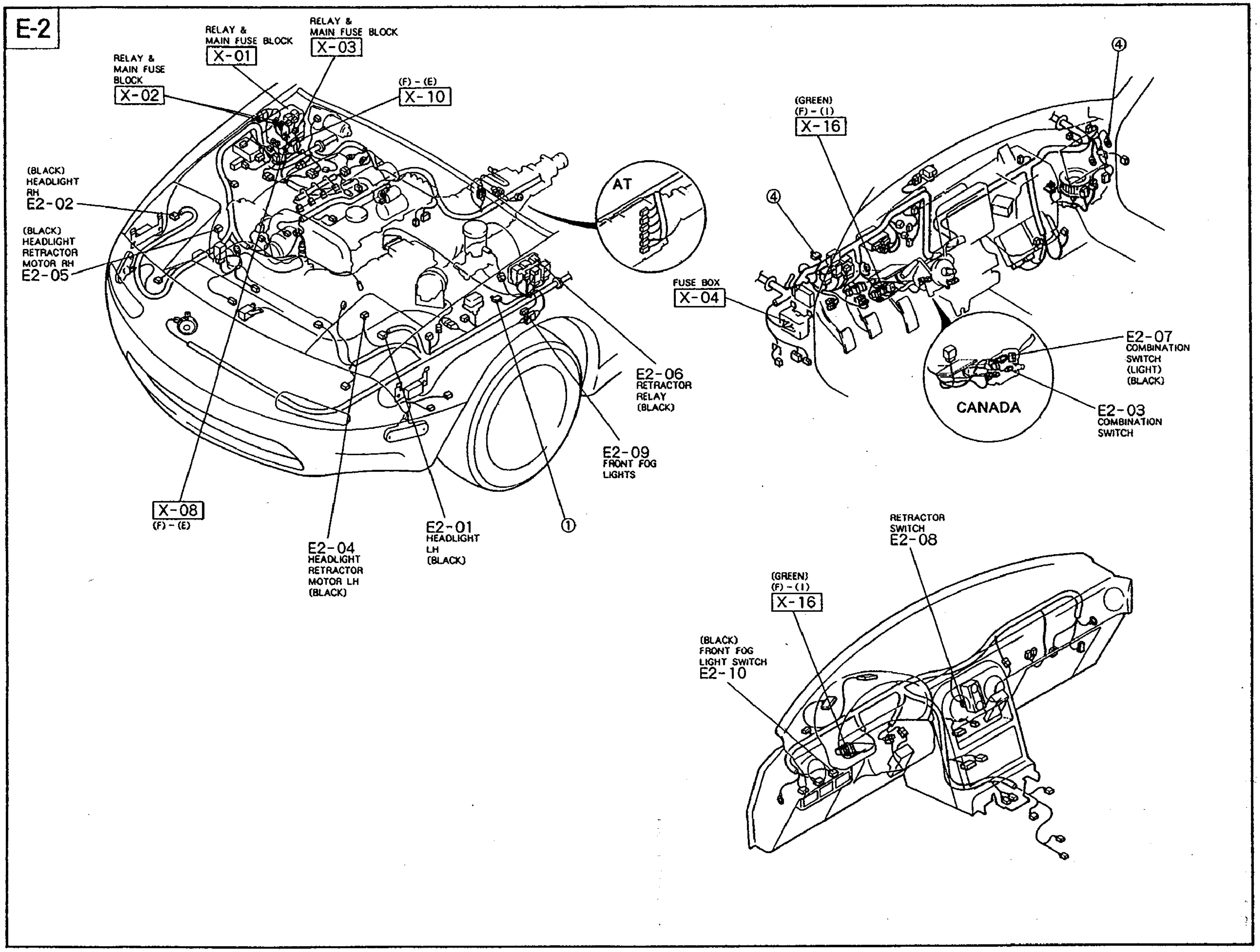

E-1
RELAY & MAIN FUSE BLOCK
X-01
RELAY & MAIN FUSE BLOCK
X-02
RELAY & MAIN FUSE BLOCK
X-03
(F) - (E)
X-10
MT
↓
(BLACK)
TNS RELAY
E1-11
(BLACK)
RETRACTOR RELAY
E1-06
X-08
(F) - (E)
AT
E1-02
HEADLIGHT RH
(BLACK)
E1-05
HEADLIGHT RETRACTOR MOTOR
(BLACK)
E1-03
HEADLIGHT RELAY
E1-09
FRONT FOG LIGHTS
①
E1-04
HEADLIGHT RETRACTOR MOTOR LH
(BLACK)
E1-01
HEADLIGHT LH
(BLACK)
E1-11
TNS RELAY
(BLACK)
↑
AT
(GREEN)
(F) - (I)
X-16
①
X-04
FUSE BOX
D-03
COMBINATION
RETRACTOR SWITCH
E1-08
(GREEN)
(F) - (I)
X-16
(BLACK)
FRONT FOG LIGHT SWITCH
E1-10

CANADA ■ HEADLIGHTS ■ FRONT FOG LIGHTS (OPTION) ■ HEADLIGHT RETRACTOR MOTOR

E-2

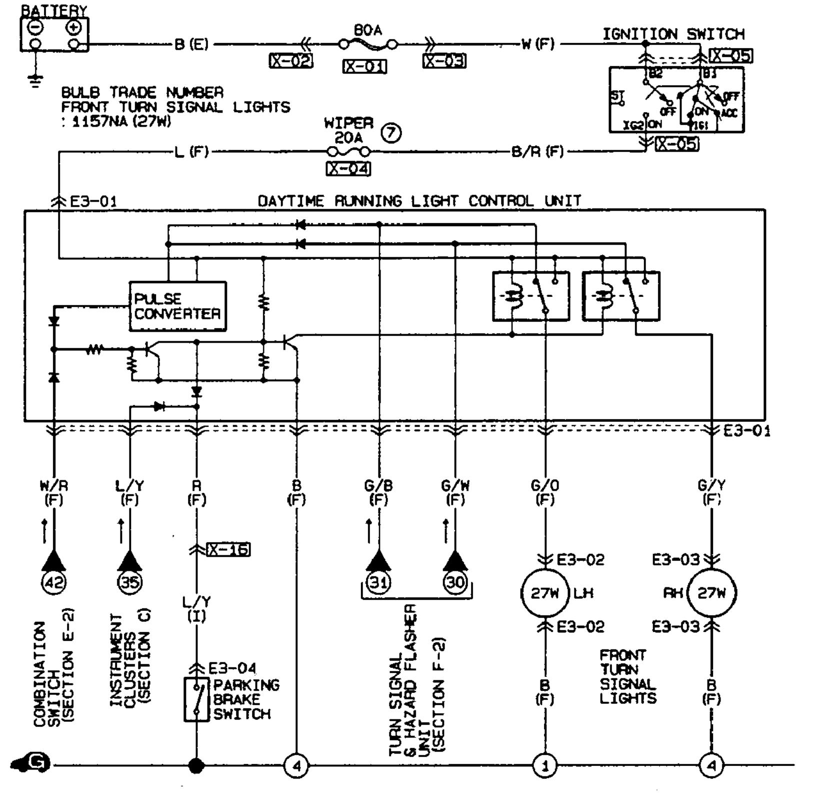

BATTERY
B (E)
X-02
30A
BR (E)
X-08
BR (F)
30A
R/L (E)
X-10
R/L (F)
X-16
R/L (I)
80A
40A
MAIN FUSE
X-03
X-01
R/L (F)
W/R (F)
E2-03
COMBINATION SWITCH (LIGHT)
OFF
HEAD
PAS
OFF
TNS
E2-07
W/R (F)
42
DRL CONTROL UNIT (SECTION E-3)
W/R (F)
RETRACTOR SWITCH
E2-08
R/Y (I)
R/G (I)
X-16
R/G (F)
W/B (F)
E2-06
RETRACTOR RELAY
R/Y (F)
BR (F)
BR (F)
B (F)
R/Y (F)
R/Y (F)
W/R (F)
W/L (F)
X-04
15A 9
TAIL
R/B (F)
13 ENGINE CONTROL UNIT (SECTION B-1b)
39 TAILLIGHTS (SECTION E-4)
40 PANEL LAMP CONTROL SWITCH (SECTION E-5)
41 AUDIO (SECTION J-1, 2)
E2-07
R/W (F)
R/B (F)
INSTRUMENT CLUSTERS (SECTION C)
32
X-16
R/B (I)
E2-10
FRONT FOG LIGHT SWITCH
G/Y (I)
X-16
G/Y (F)
E2-09
FRONT FOG LIGHTS
LH
RH
(OPTION)
R/W (F)
R/W (F)
R/B (F)
E2-01
HEADLIGHTS (60W/55W)
E2-02
E2-01
E2-02
B (F)
B (F)
B (F)
E2-04
HEADLIGHT RETRACTOR MOTOR
E2-05
M
M
LH
RH
E2-04
E2-05
G/L (F)
INSTRUMENT CLUSTERS (SECTION C)
28
G/L (F)
G/L (F)
B (F)
B (F)
1
4
1
1
4


E2-01 HEADLIGHT LH (F)
R/B
B
R/W
E2-02 HEADLIGHT RH (F)
R/B
B
R/W
E2-03 COMBINATION SWITCH (LIGHT) (F)
W/R
R/L
E2-04 HEADLIGHT RETRACTOR MOTOR LH (F)
G/L
R/Y
B
BR
W/R
*
E2-05 HEADLIGHT RETRACTOR MOTOR RH (F)
G/L
R/Y
B
BR
W/R
*
E2-06 RETRACTOR RELAY (F)
W/R
R/Y
B
W/B
R/G
E2-07 COMBINATION SWITCH (LIGHT) (F)
G/O
W/R
*
W/L
R/B
R/W
E2-08 RETRACTOR SWITCH (I)
O
R
R/B
B
R/L
R/Y
R/G
E2-09 FRONT FOG LIGHTS (F)
G/Y
E2-10 FRONT FOG LIGHT SWITCH (I)
*
R/B
R/B
*
G/Y
R


E-2
RELAY & MAIN FUSE BLOCK X-01
RELAY & MAIN FUSE BLOCK X-03
RELAY & MAIN FUSE BLOCK X-02
(F) - (E) X-10
(BLACK) HEADLIGHT RH E2-02
(BLACK) HEADLIGHT RETRACTOR MOTOR RH E2-05
AT
E2-06 RETRACTOR RELAY (BLACK)
E2-09 FRONT FOG LIGHTS
X-08 (F) - (E)
E2-04 HEADLIGHT RETRACTOR MOTOR LH (BLACK)
E2-01 HEADLIGHT LH (BLACK)
①
④
(GREEN) (F) - (I) X-16
④
FUSE BOX X-04
E2-07 COMBINATION SWITCH (LIGHT) (BLACK)
CANADA
E2-03 COMBINATION SWITCH
RETRACTOR SWITCH E2-08
(GREEN) (F) - (I) X-16
(BLACK) FRONT FOG LIGHT SWITCH E2-10

CANADA ■ DAYTIME RUNNING LIGHT CONTROL SYSTEM

E-3


BATTERY
B (E)
80A
X-02
X-01
X-03
W (F)
IGNITION SWITCH
X-05
B2
B1
ST
OFF
ON
ACC
IG2
IG1
BULB TRADE NUMBER
FRONT TURN SIGNAL LIGHTS
: 1157NA (27W)
WIPER
20A
⑦
L (F)
B/R (F)
X-04
E3-01
DAYTIME RUNNING LIGHT CONTROL UNIT
PULSE CONVERTER
W/R (F)
L/Y (F)
R (F)
B (F)
G/B (F)
G/W (F)
G/O (F)
G/Y (F)
X-16
42
35
31
30
L/Y (I)
E3-02
E3-03
27W
LH
RH
COMBINATION SWITCH (SECTION E-2)
INSTRUMENT CLUSTERS (SECTION C)
E3-04
PARKING BRAKE SWITCH
TURN SIGNAL & HAZARD FLASHER UNIT (SECTION F-2)
FRONT TURN SIGNAL LIGHTS
B (F)
G
4
1
4

E3-01 DAYTIME RUNNING LIGHT CONTROL UNIT (F)

G/Y	B			W/R	L/Y
*	L	G/W	G/B	G/O	R

E3-02 FRONT TURN SIGNAL LIGHTS LH (F)

G/O	B	R/B

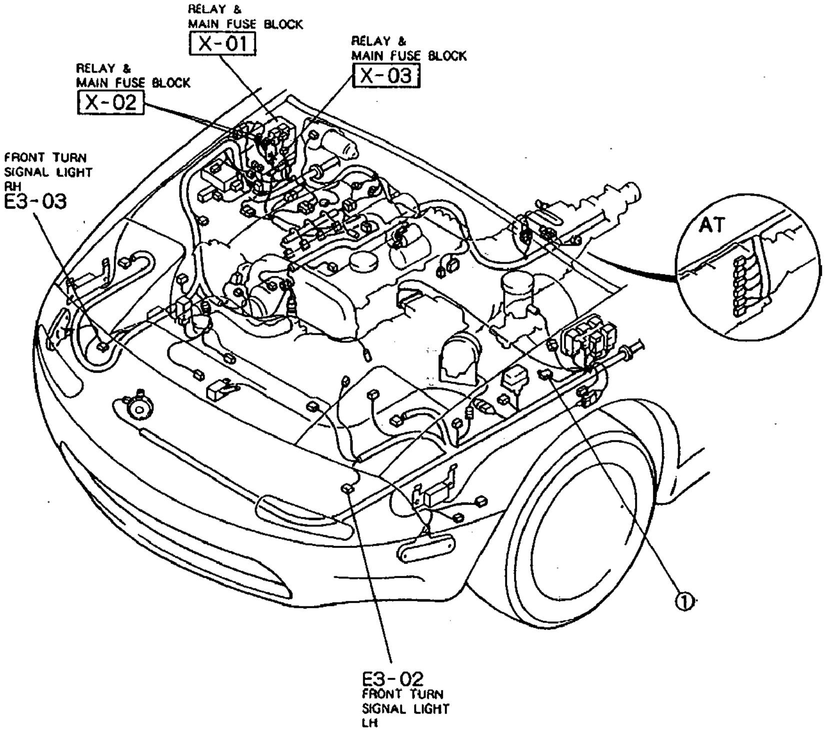
E3-03 FRONT TURN SIGNAL LIGHTS RH (F)

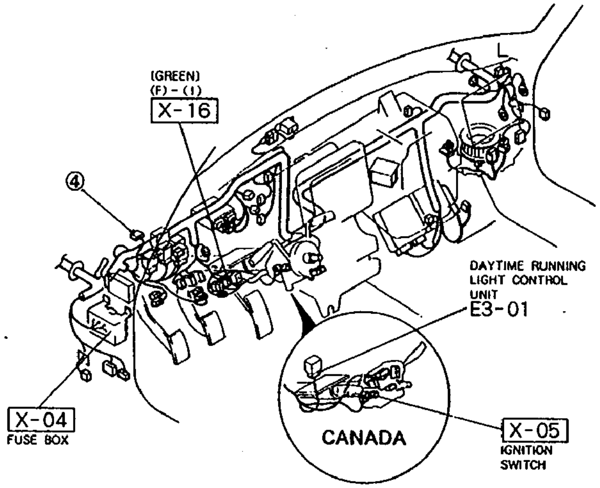
G/Y	B	R/B

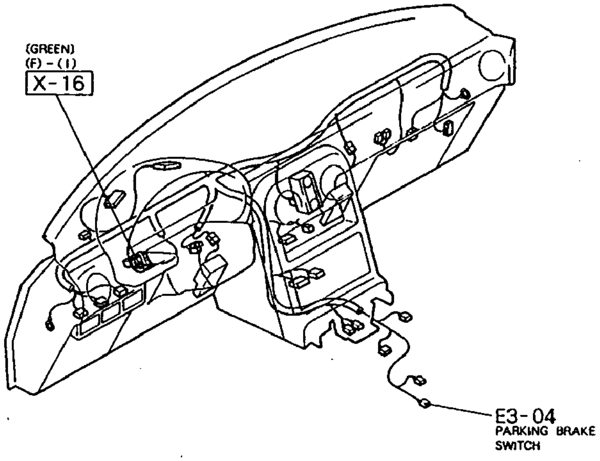
E3-04 PAKING BRAKE SWITCH (I)

L/Y

E-3

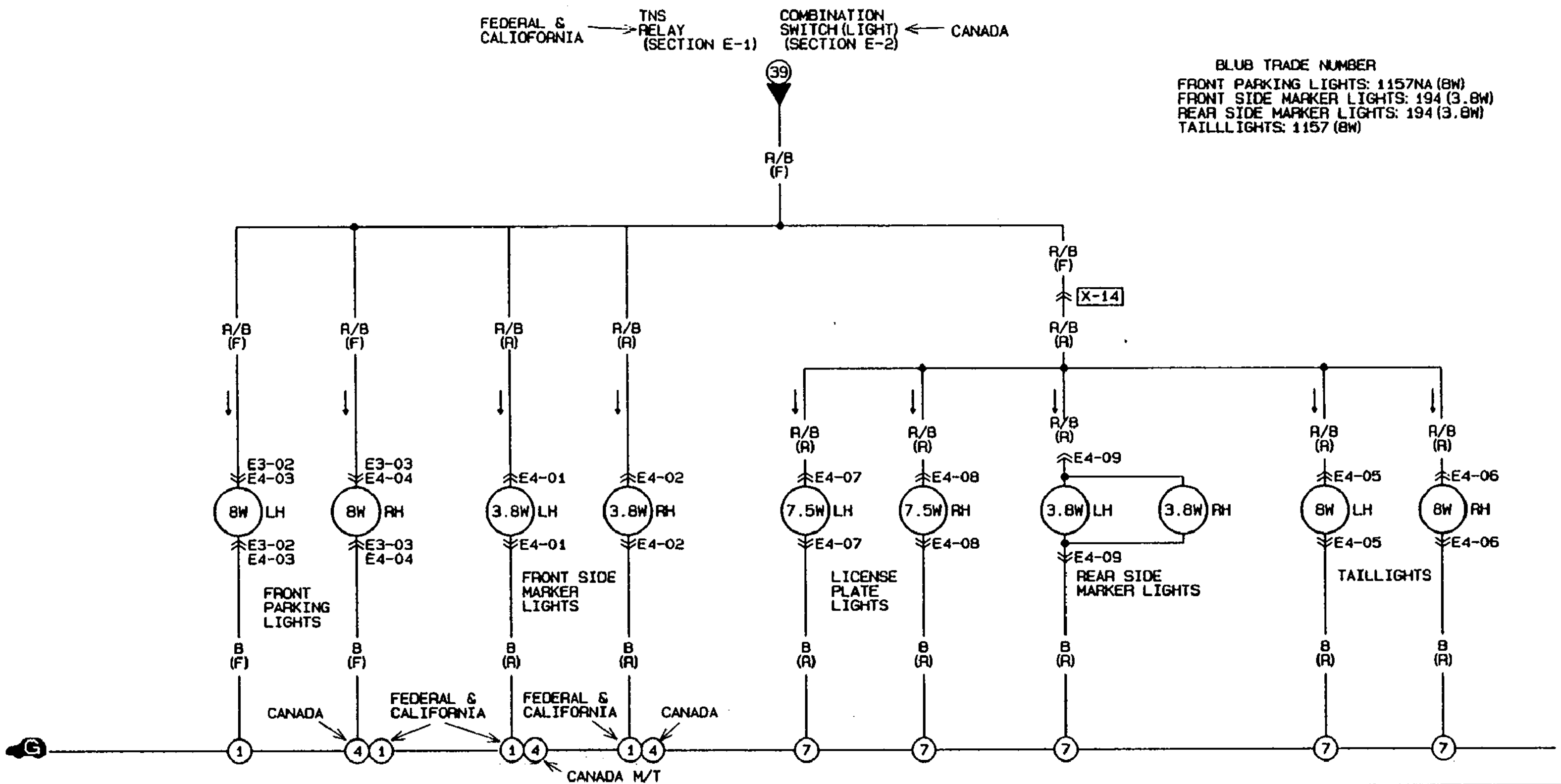

RELAY & MAIN FUSE BLOCK
X-01
RELAY & MAIN FUSE BLOCK
X-03
RELAY & MAIN FUSE BLOCK
X-02
FRONT TURN SIGNAL LIGHT RH
E3-03
AT
①
E3-02
FRONT TURN SIGNAL LIGHT LH


(GREEN)
(F) - (1)
X-16
④
DAYTIME RUNNING LIGHT CONTROL UNIT
E3-01
X-04
FUSE BOX
CANADA
X-05
IGNITION SWITCH

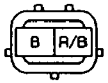
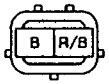
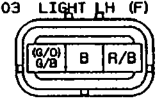
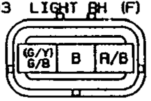
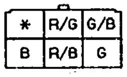
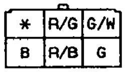
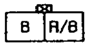
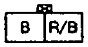
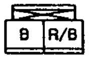

(GREEN)
(F) - (1)
X-16
E3-04
PARKING BRAKE SWITCH

■FRONT PARKING LIGHTS ■LICENSE PLATE LIGHTS ■TAILLIGHTS ■FRONT SIDE MARKER LIGHTS ■REAR SIDE MARKER LIGHTS

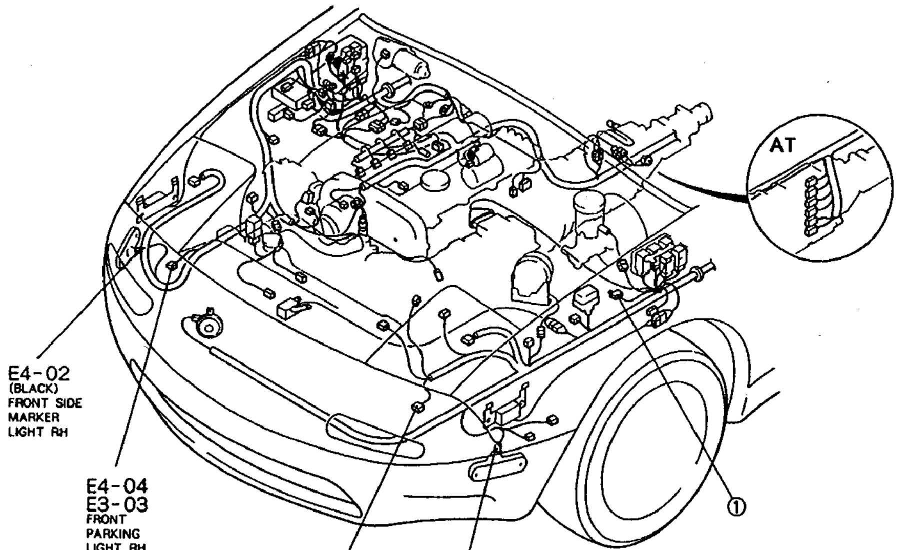
E-4

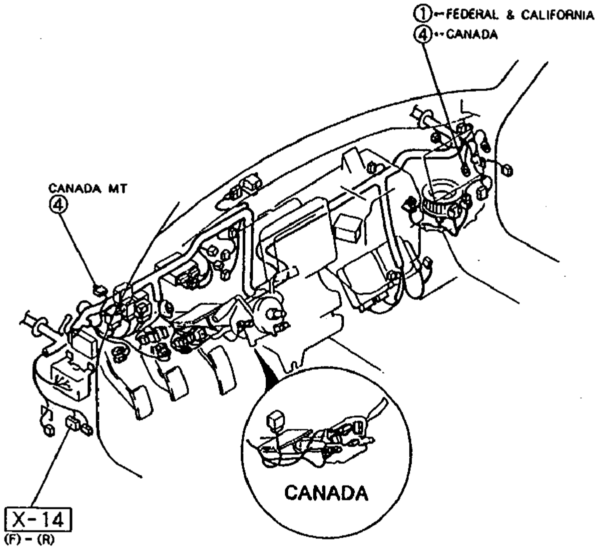

FEDERAL &
CALIOFORNIA
TNS
RELAY
(SECTION E-1)
COMBINATION
SWITCH (LIGHT)
(SECTION E-2)
CANADA
39
R/B
(F)
R/B
(F)
X-14
R/B
(R)
R/B (F)
R/B (F)
R/B (R)
R/B (R)
E3-02
E4-03
8W LH
E3-03
E4-04
8W RH
E4-01
3.8W LH
E4-02
3.8W RH
FRONT PARKING LIGHTS
FRONT SIDE MARKER LIGHTS
R/B (R)
R/B (R)
R/B (R)
R/B (R)
R/B (R)
E4-07
7.5W LH
E4-08
7.5W RH
E4-09
3.8W LH
3.8W RH
E4-05
8W LH
E4-06
8W RH
LICENSE PLATE LIGHTS
REAR SIDE MARKER LIGHTS
TAILLIGHTS
B (F)
B (F)
B (R)
B (R)
B (R)
B (R)
B (R)
B (R)
B (R)
CANADA
FEDERAL & CALIFORNIA
FEDERAL & CALIFORNIA
CANADA
CANADA M/T
G
1
4
1
1
4
1
4
7
7
7
7
7

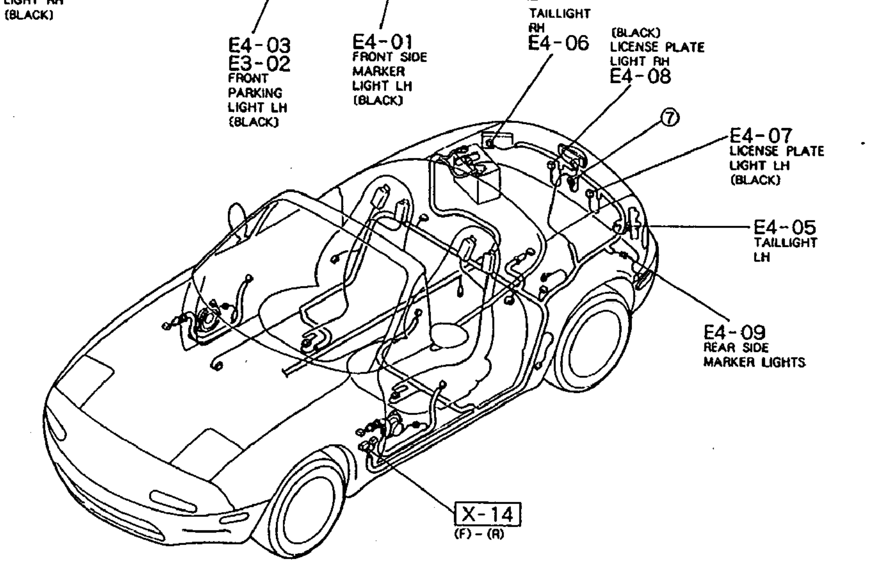
BLUB TRADE NUMBER
FRONT PARKING LIGHTS: 1157NA (8W)
FRONT SIDE MARKER LIGHTS: 194 (3.8W)
REAR SIDE MARKER LIGHTS: 194 (3.8W)
TAILLLIGHTS: 1157 (8W)

E4-01 FRONT SIDE MARKER LIGHT LH (F)  B R/B	E4-02 FRONT SIDE MARKER LIGHT RH (F)  B R/B	E3-02 E4-03 FRONT PARKING LIGHT LH (F)  (G/O) G/B B R/B	E3-03 E4-03 FRONT PARKING LIGHT RH (F)  (G/Y) G/B B R/B	E4-05 TAILLIGHT LH (R)  * R/G G/B B R/B G	E4-06 TAILLIGHT RH (R)  * R/G G/W B R/B G	E4-07 LICENSE PLATE LIGHT LH (R)  B R/B
E4-08 LICENSE PLATE LIGHT RH (R)  B R/B	E4-09 REAR SIDE MARKER LIGHTS (R)  B R/B					

E-4

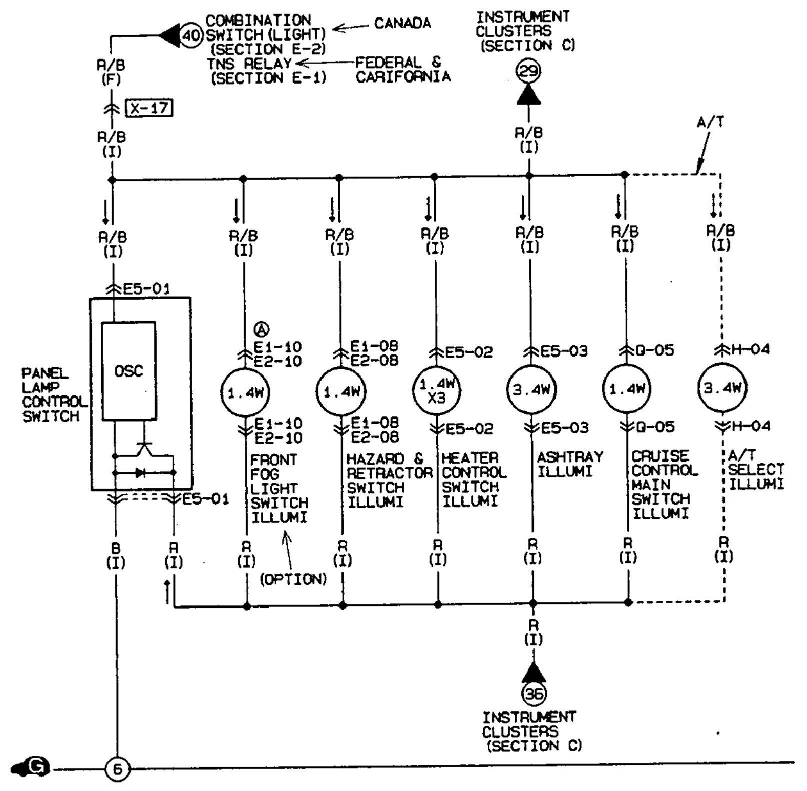

AT
E4-02
(BLACK)
FRONT SIDE
MARKER
LIGHT RH
E4-04
E3-03
FRONT
PARKING
LIGHT RH
(BLACK)
E4-03
E3-02
FRONT
PARKING
LIGHT LH
(BLACK)
E4-01
FRONT SIDE
MARKER
LIGHT LH
(BLACK)
①


①←FEDERAL & CALIFORNIA
④←CANADA
CANADA MT
④
X-14
(F) - (R)
CANADA


TAILLIGHT
RH
E4-06
(BLACK)
LICENSE PLATE
LIGHT RH
E4-08
⑦
E4-07
LICENSE PLATE
LIGHT LH
(BLACK)
E4-05
TAILLIGHT
LH
E4-09
REAR SIDE
MARKER LIGHTS
X-14
(F) - (R)

■ ILLUMINATION LAMPS

E-5



COMBINATION SWITCH (LIGHT) (SECTION E-2) ← CANADA
TNS RELAY (SECTION E-1) ← FEDERAL & CARIFORNIA
40
INSTRUMENT CLUSTERS (SECTION C)
29
R/B (F)
X-17
R/B (I)
A/T
E5-01
PANEL LAMP CONTROL SWITCH
OSC
Ⓐ
E1-10 E2-10
E1-08 E2-08
E5-02
E5-03
Q-05
H-04
1.4W
1.4W
1.4W X3
3.4W
1.4W
3.4W
FRONT FOG LIGHT SWITCH ILLUMI
HAZARD & RETRACTOR SWITCH ILLUMI
HEATER CONTROL SWITCH ILLUMI
ASHTRAY ILLUMI
CRUISE CONTROL MAIN SWITCH ILLUMI
A/T SELECT ILLUMI
B (I)
R (I)
(OPTION)
36
INSTRUMENT CLUSTERS (SECTION C)
G
6

E1-08 HAZARD & RETRACTOR SWITCH ILLUMI (I)
E2-08

O		R	R/B
B	R/L	R/Y	R/G

E1-10 FRONT FOG LIGHT SWITCH ILLUMI (I)
E2-10

Ⓐ

*	R/B	R/B
*	G/Y	R

E5-01 PANEL LAMP CONTROL SWITCH (I)

B			R
*	*	R/B	*

E5-02 HEATER CONTROL SWITCH ILLUMI (I)

R/B
R

E5-03 ASHTRAY ILLUMI (I)

R	R/B

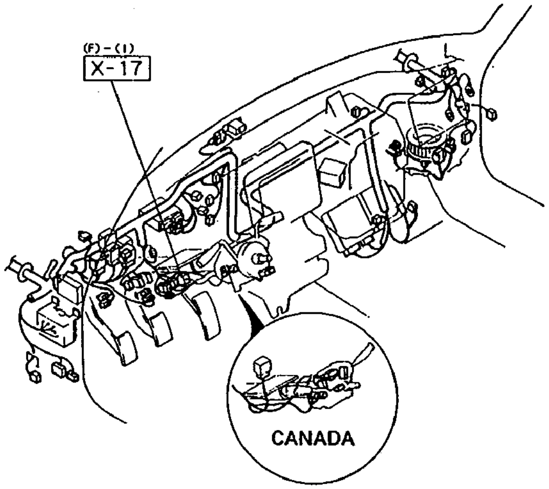
H-04 A/T SELECT ILLUMI (I)

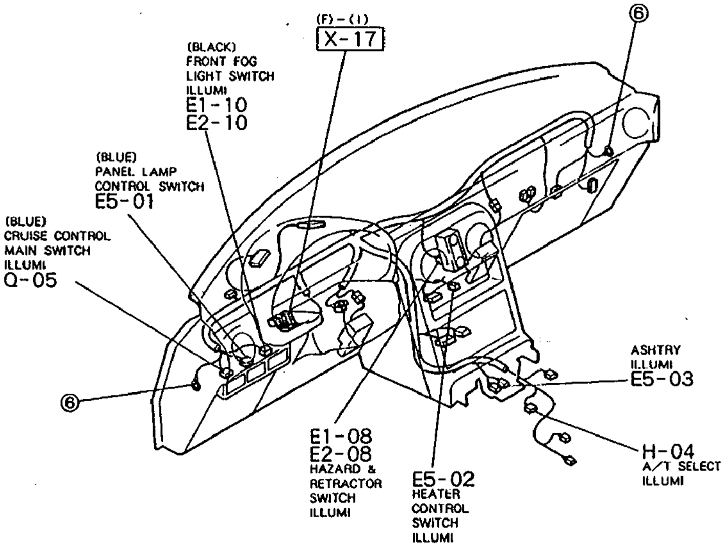
L/B	B/Y
R	R/B

Q-05 CRUISE CONTROL MAIN SWITCH ILLUMI (I)

R/B			Y/B
R	B/Y	R	B

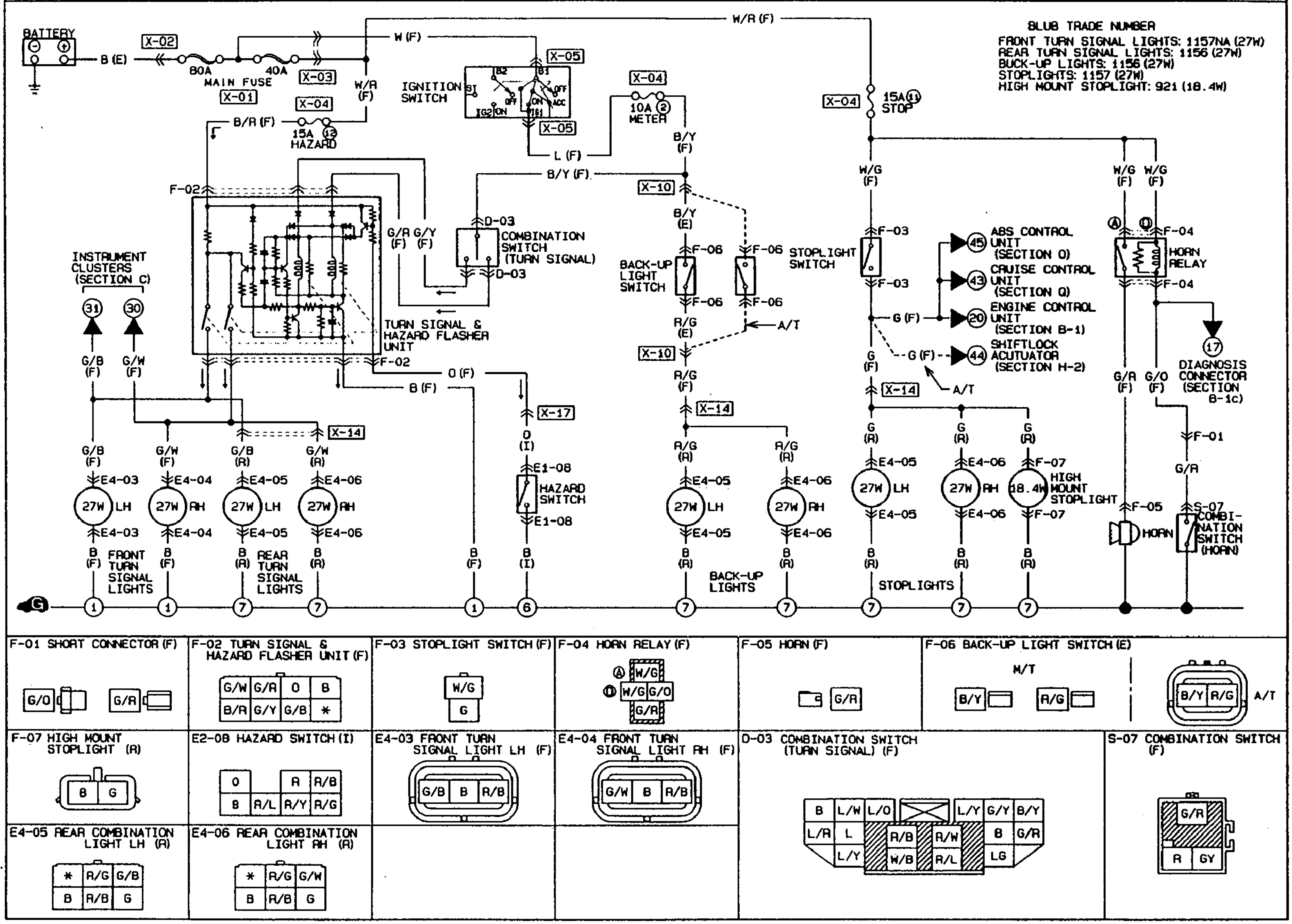
E-5

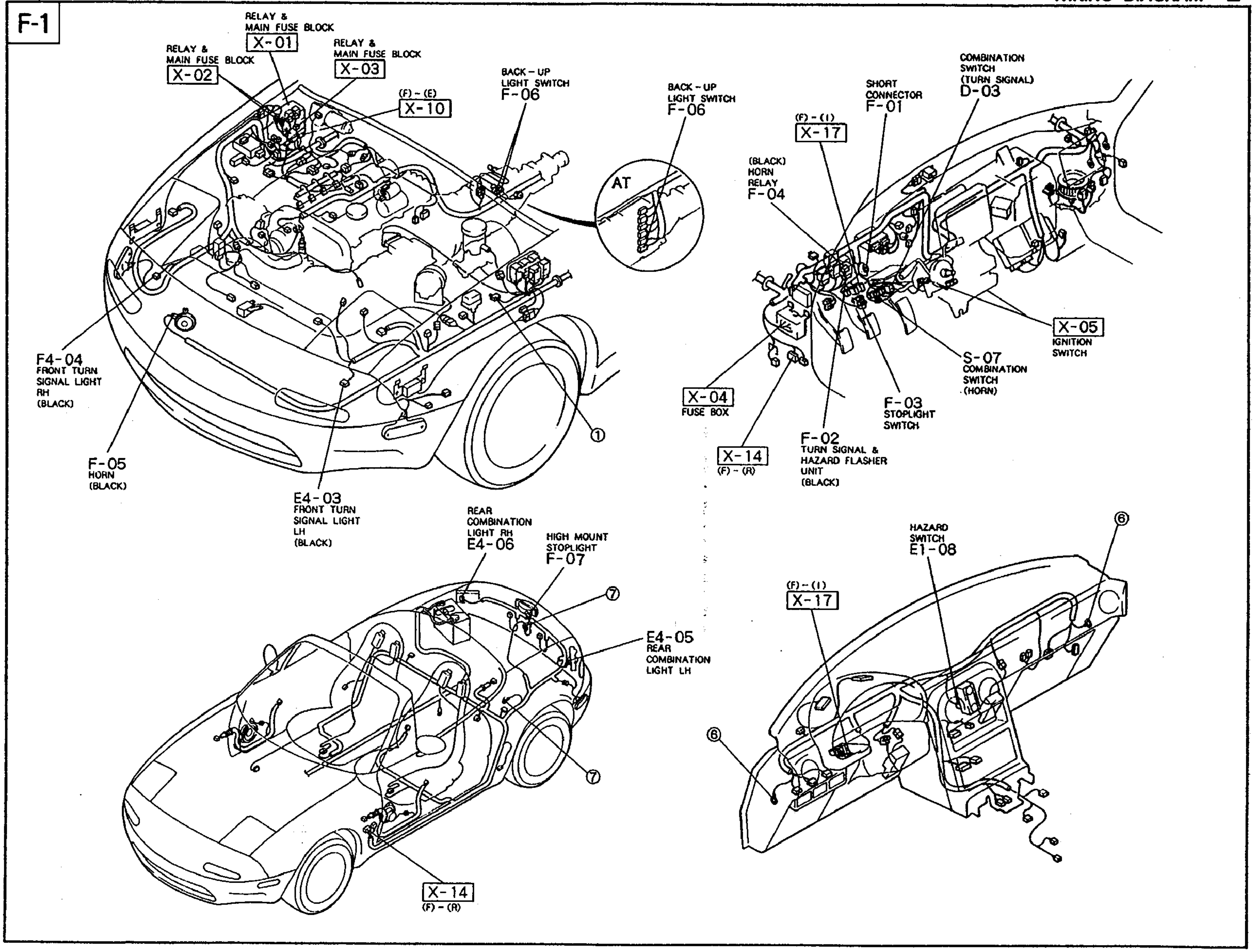

(F)-(1)
X-17
CANADA


(F)-(1)
X-17
⑥
(BLACK)
FRONT FOG
LIGHT SWITCH
ILLUMI
E1-10
E2-10
(BLUE)
PANEL LAMP
CONTROL SWITCH
E5-01
(BLUE)
CRUISE CONTROL
MAIN SWITCH
ILLUMI
Q-05
⑥
ASHTRY
ILLUMI
E5-03
H-04
A/T SELECT
ILLUMI
E1-08
E2-08
HAZARD &
RETRACTOR
SWITCH
ILLUMI
E5-02
HEATER
CONTROL
SWITCH
ILLUMI

FEDERAL & CALIFORNIA ■ TURN SIGNAL & HAZARD FLASHER LIGHTS ■ STOPLIGHTS ■ BACK-UP LIGHTS ■ HORN ■ HIGH MOUNT STOPLIGHT

F-1

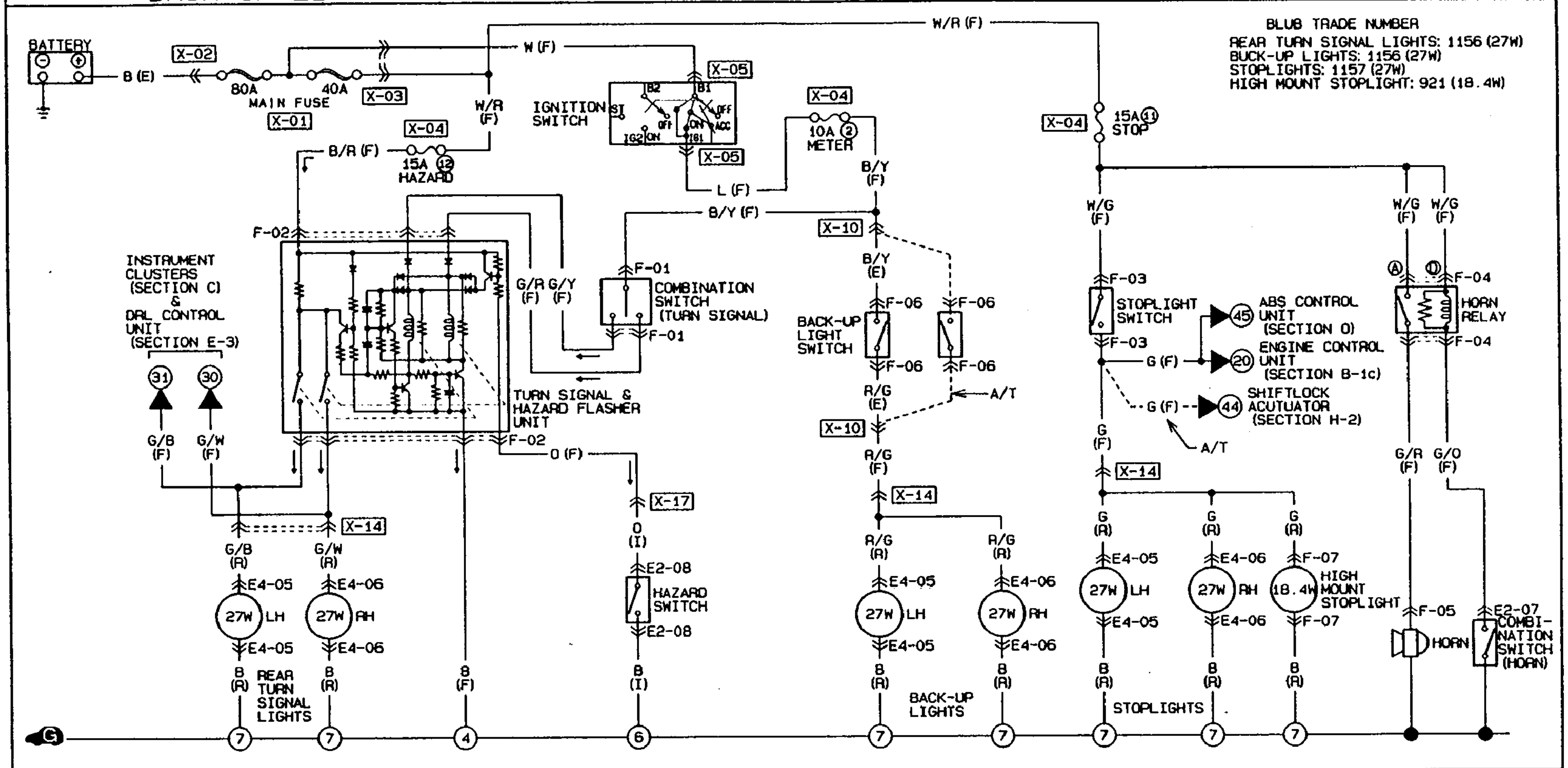

BLUB TRADE NUMBER
FRONT TURN SIGNAL LIGHTS: 1157NA (27W)
REAR TURN SIGNAL LIGHTS: 1156 (27W)
BUCK-UP LIGHTS: 1156 (27W)
STOPLIGHTS: 1157 (27W)
HIGH MOUNT STOPLIGHT: 921 (18.4W)
BATTERY
B (E)
X-02
80A
40A
MAIN FUSE
X-01
X-03
X-04
W (F)
W/R (F)
W/R (F)
B/R (F)
15A ⑫ HAZARD
IGNITION SWITCH
X-05
L (F)
10A ② METER
B/Y (F)
X-10
15A ⑪ STOP
W/G (F)
F-02
G/R (F)
G/Y (F)
D-03
COMBINATION SWITCH (TURN SIGNAL)
TURN SIGNAL & HAZARD FLASHER UNIT
INSTRUMENT CLUSTERS (SECTION C)
㉛
㉚
G/B (F)
G/W (F)
O (F)
B (F)
X-17
X-14
O (I)
E1-08
HAZARD SWITCH
B/Y (E)
F-06
BACK-UP LIGHT SWITCH
R/G (E)
A/T
R/G (F)
R/G (R)
F-03
STOPLIGHT SWITCH
G (F)
㊺ ABS CONTROL UNIT (SECTION O)
㊸ CRUISE CONTROL UNIT (SECTION Q)
⑳ ENGINE CONTROL UNIT (SECTION B-1)
㊹ SHIFTLOCK ACUTUATOR (SECTION H-2)
G (R)
Ⓐ Ⓓ
F-04
HORN RELAY
⑰ DIAGNOSIS CONNECTOR (SECTION B-1c)
G/R (F)
G/O (F)
F-01
G/R
E4-03
E4-04
E4-05
E4-06
27W LH
27W RH
FRONT TURN SIGNAL LIGHTS
REAR TURN SIGNAL LIGHTS
B (F)
B (R)
B (I)
BACK-UP LIGHTS
F-07
18.4W HIGH MOUNT STOPLIGHT
STOPLIGHTS
F-05
HORN
S-07
COMBINATION SWITCH (HORN)
G
①
⑥
⑦
F-01 SHORT CONNECTOR (F)
G/O
G/R
F-02 TURN SIGNAL & HAZARD FLASHER UNIT (F)
G/W G/R O B
B/R G/Y G/B ✱
F-03 STOPLIGHT SWITCH (F)
W/G
G
F-04 HORN RELAY (F)
Ⓐ W/G
Ⓓ W/G G/O
G/R
F-05 HORN (F)
G/R
F-06 BACK-UP LIGHT SWITCH (E)
M/T
B/Y
R/G
B/Y R/G
A/T
F-07 HIGH MOUNT STOPLIGHT (R)
B G
E2-08 HAZARD SWITCH (I)
O R R/B
B R/L R/Y R/G
E4-03 FRONT TURN SIGNAL LIGHT LH (F)
G/B B R/B
E4-04 FRONT TURN SIGNAL LIGHT RH (F)
G/W B R/B
D-03 COMBINATION SWITCH (TURN SIGNAL) (F)
B L/W L/O L/Y G/Y B/Y
L/R L R/B R/W B G/R
L/Y W/B R/L LG
S-07 COMBINATION SWITCH (F)
G/R
R GY
E4-05 REAR COMBINATION LIGHT LH (R)
✱ R/G G/B
B R/B G
E4-06 REAR COMBINATION LIGHT RH (R)
✱ R/G G/W
B R/B G

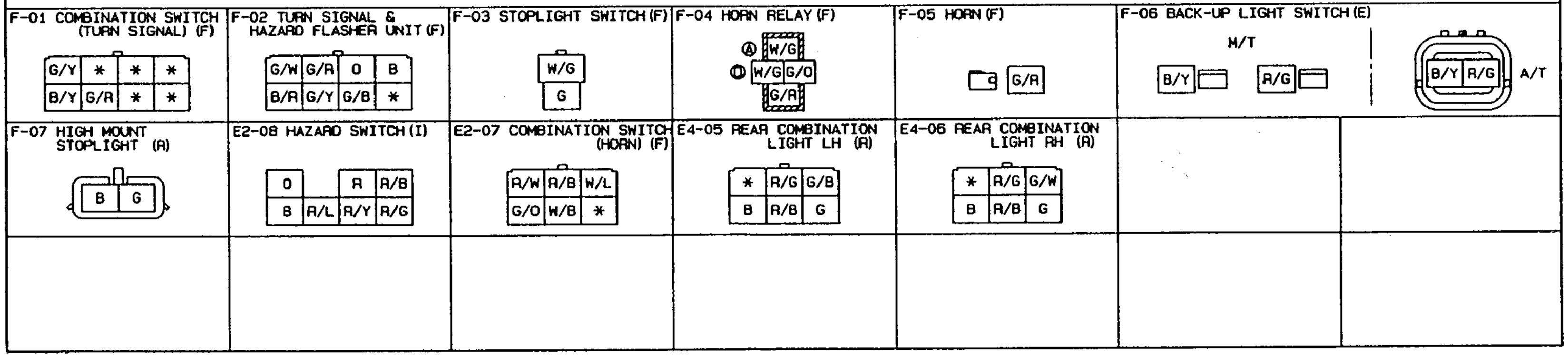

F-1
RELAY & MAIN FUSE BLOCK
X-01
RELAY & MAIN FUSE BLOCK
X-02
RELAY & MAIN FUSE BLOCK
X-03
(F) - (E)
X-10
BACK - UP LIGHT SWITCH
F-06
AT
BACK - UP LIGHT SWITCH
F-06
F4-04
FRONT TURN SIGNAL LIGHT RH
(BLACK)
F-05
HORN
(BLACK)
E4-03
FRONT TURN SIGNAL LIGHT LH
(BLACK)
①
(F) - (I)
X-17
(BLACK) HORN RELAY
F-04
SHORT CONNECTOR
F-01
COMBINATION SWITCH (TURN SIGNAL)
D-03
X-05
IGNITION SWITCH
S-07
COMBINATION SWITCH (HORN)
X-04
FUSE BOX
F-03
STOPLIGHT SWITCH
X-14
(F) - (R)
F-02
TURN SIGNAL & HAZARD FLASHER UNIT
(BLACK)
REAR COMBINATION LIGHT RH
E4-06
HIGH MOUNT STOPLIGHT
F-07
⑦
E4-05
REAR COMBINATION LIGHT LH
⑦
X-14
(F) - (R)
HAZARD SWITCH
E1-08
(F) - (I)
X-17
⑥
⑥

CANADA

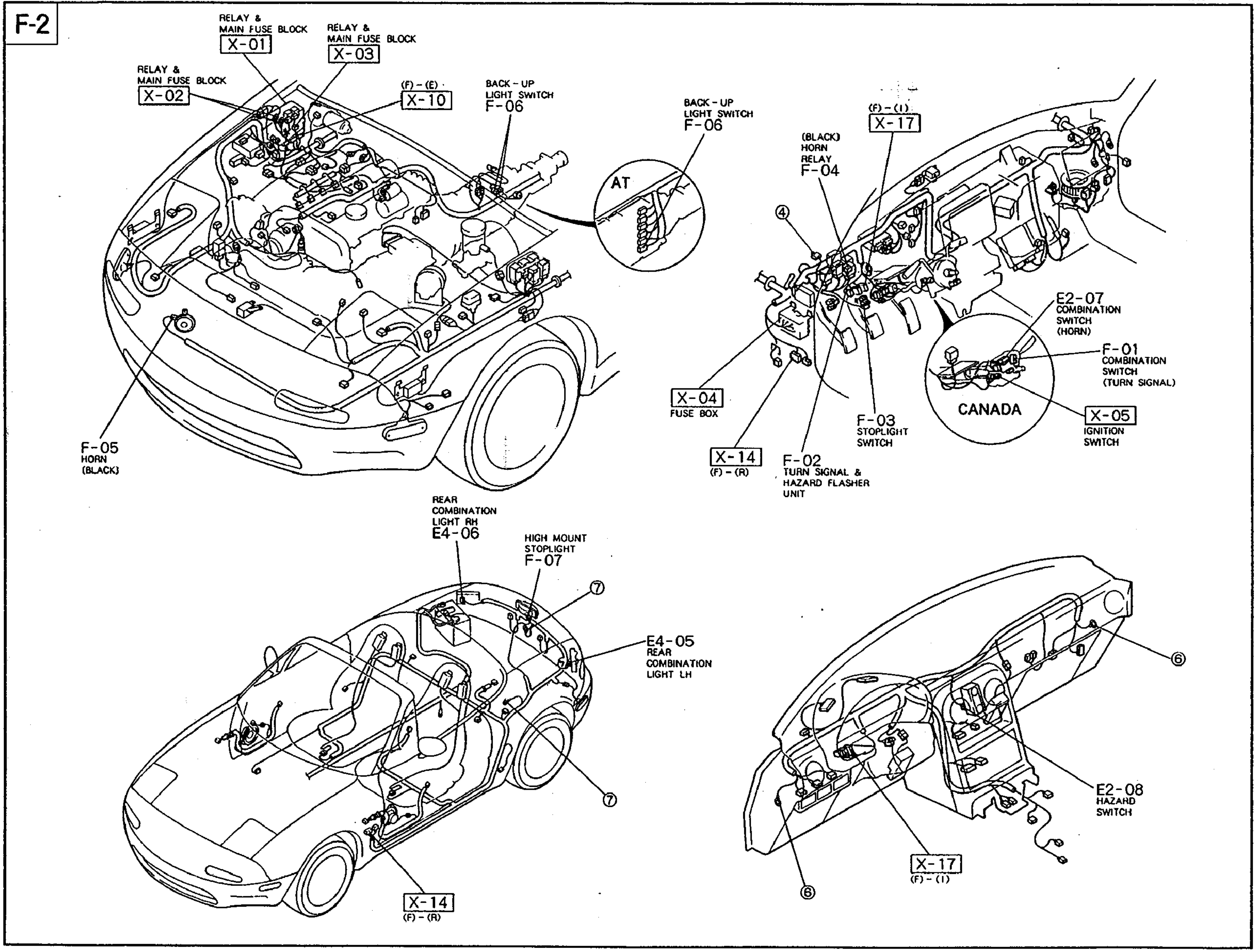
■TURN SIGNAL & HAZARD FLASHER LIGHTS ■STOPLIGHTS ■BACK-UP LIGHTS ■HORN ■HIGH MOUNT STOPLIGHT

F-2

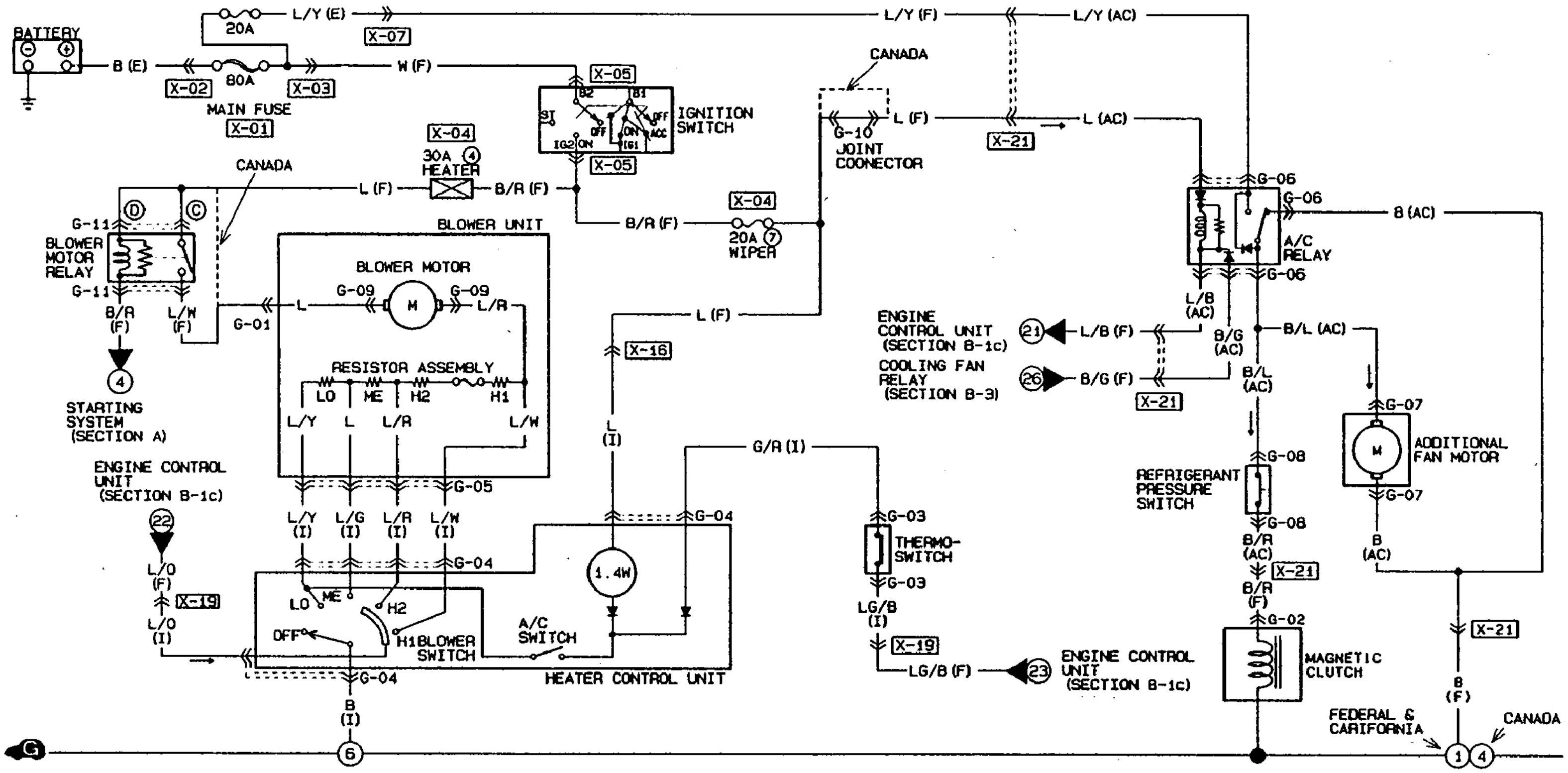

BULB TRADE NUMBER
REAR TURN SIGNAL LIGHTS: 1156 (27W)
BUCK-UP LIGHTS: 1156 (27W)
STOPLIGHTS: 1157 (27W)
HIGH MOUNT STOPLIGHT: 921 (18.4W)
BATTERY
B (E)
X-02
80A
40A
MAIN FUSE
X-01
X-03
W (F)
W/R (F)
W/R (F)
IGNITION SWITCH
X-05
B2
B1
ST
IG2
ON
OFF
IG1
ACC
X-04
10A ②
METER
L (F)
B/Y (F)
B/R (F)
15A ⑫
HAZARD
X-04
15A ⑪
STOP
INSTRUMENT CLUSTERS (SECTION C) & DRL CONTROL UNIT (SECTION E-3)
㉛
㉚
G/B (F)
G/W (F)
F-02
G/R (F)
G/Y (F)
F-01
COMBINATION SWITCH (TURN SIGNAL)
TURN SIGNAL & HAZARD FLASHER UNIT
O (F)
X-17
O (I)
E2-08
HAZARD SWITCH
B (I)
X-14
G/B (R)
G/W (R)
E4-05
E4-06
27W
LH
RH
B (R)
REAR TURN SIGNAL LIGHTS
B (F)
X-10
B/Y (E)
F-06
BACK-UP LIGHT SWITCH
R/G (E)
A/T
R/G (F)
R/G (R)
BACK-UP LIGHTS
W/G (F)
F-03
STOPLIGHT SWITCH
ABS CONTROL UNIT (SECTION O)
ENGINE CONTROL UNIT (SECTION B-1c)
SHIFTLOCK ACUTUATOR (SECTION H-2)
㊺
⑳
㊹
G (F)
G (R)
F-07
18.4W
HIGH MOUNT STOPLIGHT
STOPLIGHTS
Ⓐ
Ⓓ
F-04
HORN RELAY
G/R (F)
G/O (F)
F-05
HORN
E2-07
COMBINATION SWITCH (HORN)
G
⑦
④
⑥


F-01 COMBINATION SWITCH (TURN SIGNAL) (F)
G/Y
*
*
*
B/Y
G/R
*
*
F-02 TURN SIGNAL & HAZARD FLASHER UNIT (F)
G/W
G/R
O
B
B/R
G/Y
G/B
*
F-03 STOPLIGHT SWITCH (F)
W/G
G
F-04 HORN RELAY (F)
Ⓐ
W/G
Ⓓ
W/G
G/O
G/R
F-05 HORN (F)
G/R
F-06 BACK-UP LIGHT SWITCH (E)
M/T
B/Y
R/G
B/Y
R/G
A/T
F-07 HIGH MOUNT STOPLIGHT (R)
B
G
E2-08 HAZARD SWITCH (I)
O
R
R/B
B
R/L
R/Y
R/G
E2-07 COMBINATION SWITCH (HORN) (F)
R/W
R/B
W/L
G/O
W/B
*
E4-05 REAR COMBINATION LIGHT LH (R)
*
R/G
G/B
B
R/B
G
E4-06 REAR COMBINATION LIGHT RH (R)
*
R/G
G/W
B
R/B
G

F-2

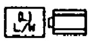

RELAY & MAIN FUSE BLOCK
X-01
RELAY & MAIN FUSE BLOCK
X-03
RELAY & MAIN FUSE BLOCK
X-02
(F) - (E)
X-10
BACK - UP LIGHT SWITCH
F-06
AT
BACK - UP LIGHT SWITCH
F-06
F-05
HORN
(BLACK)
(F) - (I)
X-17
(BLACK)
HORN
RELAY
F-04
④
E2-07
COMBINATION SWITCH
(HORN)
F-01
COMBINATION SWITCH
(TURN SIGNAL)
CANADA
X-05
IGNITION SWITCH
X-04
FUSE BOX
F-03
STOPLIGHT SWITCH
X-14
(F) - (R)
F-02
TURN SIGNAL & HAZARD FLASHER UNIT
REAR COMBINATION LIGHT RH
E4-06
HIGH MOUNT STOPLIGHT
F-07
⑦
E4-05
REAR COMBINATION LIGHT LH
⑦
X-14
(F) - (R)
⑥
E2-08
HAZARD SWITCH
X-17
(F) - (I)
⑥

▪HEATER & AIR CONDITIONER

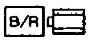

BATTERY
B (E)
80A
MAIN FUSE
X-01
X-02
X-03
20A
L/Y (E)
X-07
W (F)
L/Y (F)
L/Y (AC)
X-05
IGNITION SWITCH
ST
B2
B1
IG2
ON
OFF
IG1
ACC
CANADA
G-10
JOINT CONNECTOR
L (F)
L (AC)
X-21
X-04
30A ④ HEATER
L (F)
B/R (F)
20A ⑦ WIPER
BLOWER UNIT
BLOWER MOTOR
G-09
M
L
L/R
G-01
RESISTOR ASSEMBLY
LO
ME
H2
H1
L/Y
L/R
L/W
G-05
L/G
G-04
G-11
BLOWER MOTOR RELAY
Ⓓ
Ⓒ
B/R (F)
L/W (F)
④
STARTING SYSTEM (SECTION A)
ENGINE CONTROL UNIT (SECTION B-1c)
㉒
L/O (F)
X-19
L/O (I)
OFF
BLOWER SWITCH
A/C SWITCH
HEATER CONTROL UNIT
1.4W
X-16
L (I)
G/R (I)
G-03
THERMO-SWITCH
LG/B (I)
LG/B (F)
㉓
ENGINE CONTROL UNIT (SECTION B-1c)
ENGINE CONTROL UNIT (SECTION B-1c)
㉑
L/B (F)
COOLING FAN RELAY (SECTION B-3)
㉖
B/G (F)
G-06
A/C RELAY
B (AC)
L/B (AC)
B/G (AC)
B/L (AC)
G-07
ADDITIONAL FAN MOTOR
G-08
REFRIGERANT PRESSURE SWITCH
B/R (AC)
B/R (F)
G-02
MAGNETIC CLUTCH
B (AC)
B (F)
FEDERAL & CARIFORNIA
CANADA
①
④
B (I)
⑥
G

G-01 BLOWER UNIT (F)

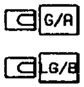
( ) . . . CANADA



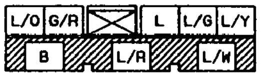
G-02 MAGNETIC CLUTCH (F)



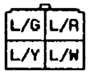
G-03 THERMOSWITCH (I)



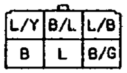
G-04 HEATER CONTROL UNIT (I)


L/O
G/R
L
L/G
L/Y
B
L/R
L/W

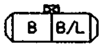
G-05 BLOWER UNIT (I)



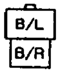
G-06 A/C RELAY (AC)


L/Y
B/L
L/B
B
L
B/G

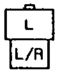
G-07 ADDITIONAL FAN MOTOR (AC)



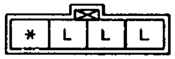
G-08 REFRIGERANT PRESSURE SWITCH (AC)



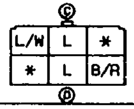
G-09 BLOWER MOTOR

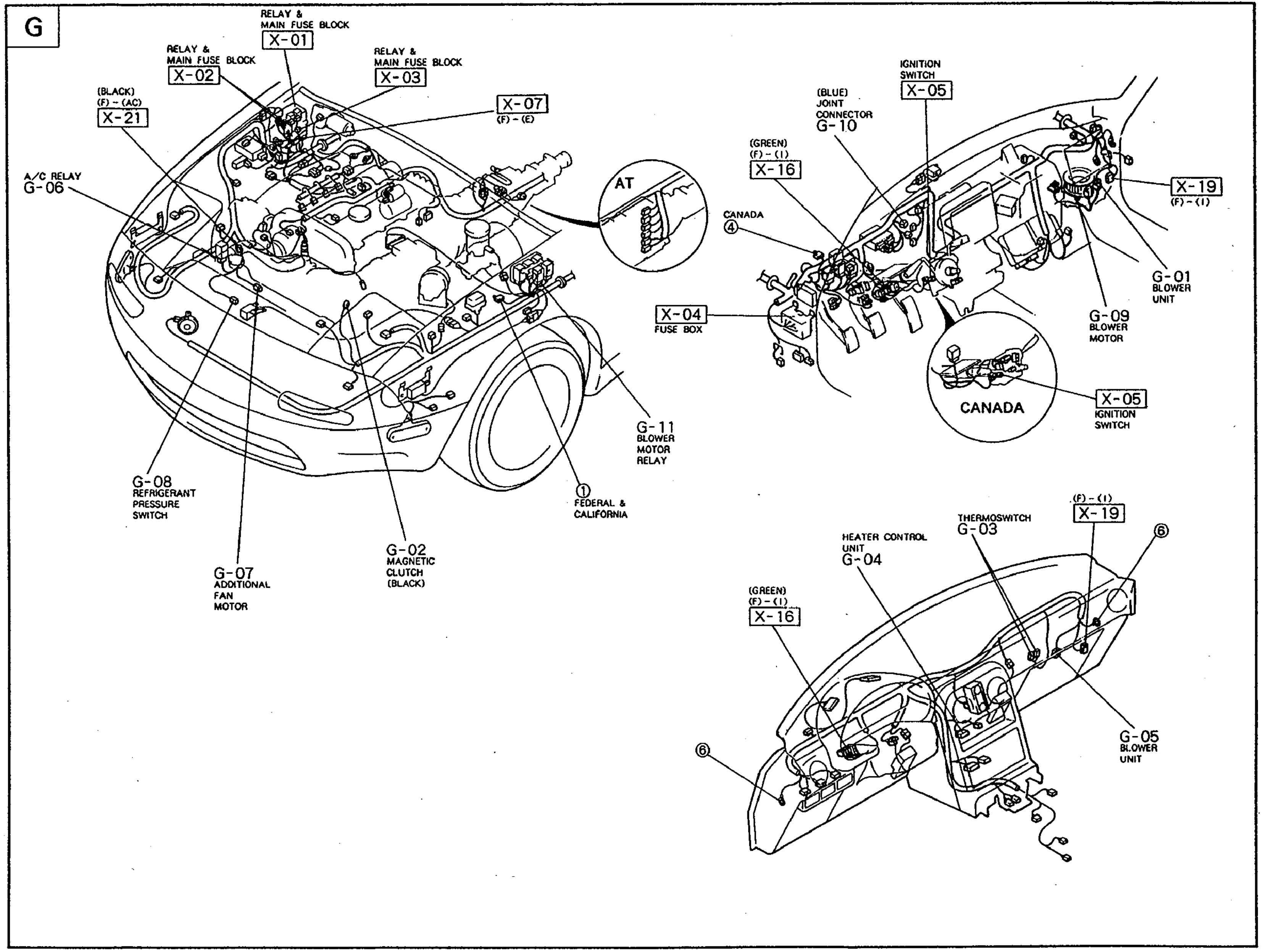


G-10 JOINT CONNECTOR (F)



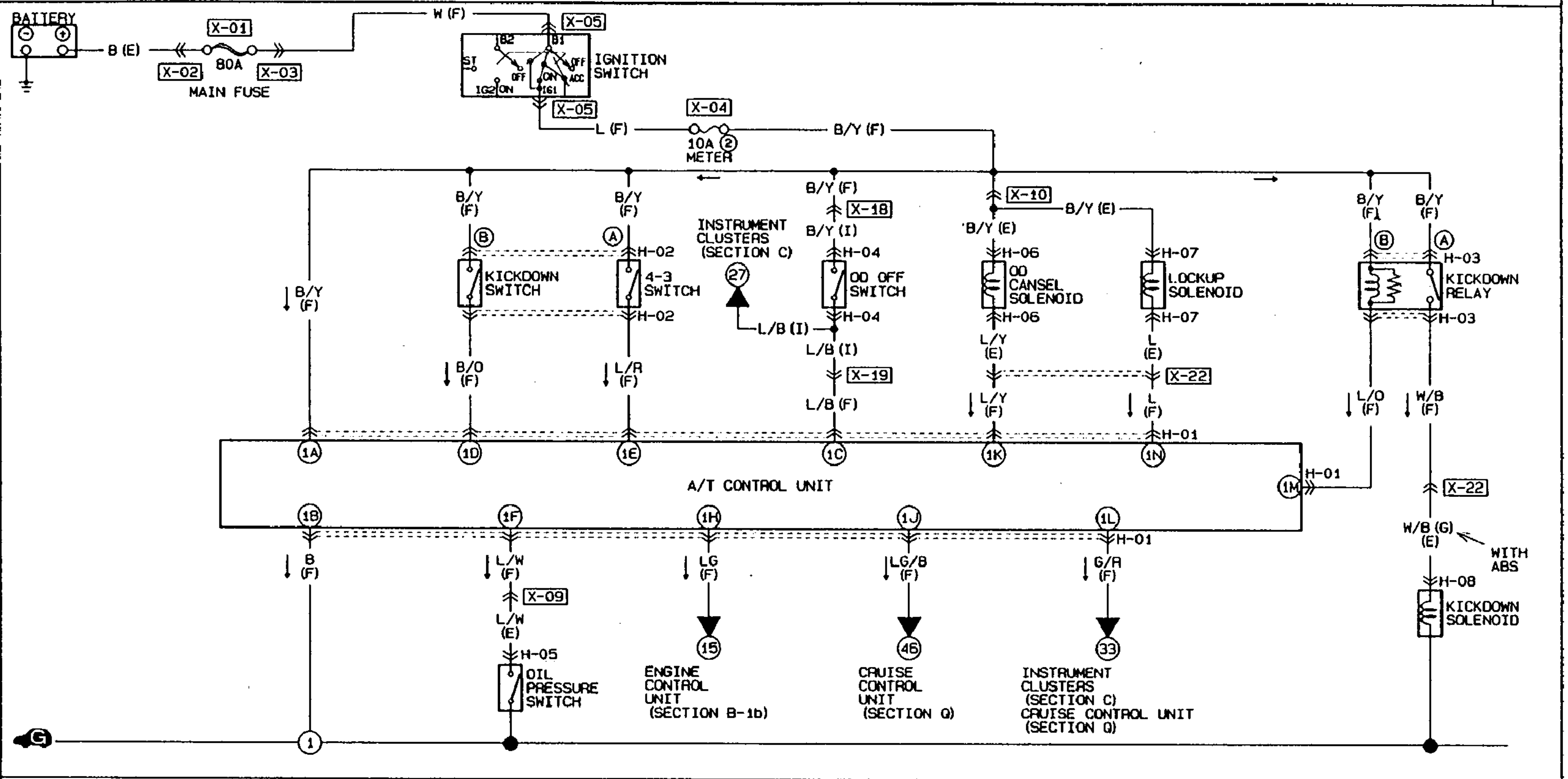
G-11 BLOWER MOTOR RELAY (F)



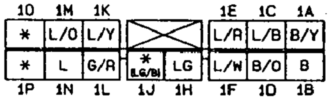

G
RELAY & MAIN FUSE BLOCK
X-01
RELAY & MAIN FUSE BLOCK
X-02
RELAY & MAIN FUSE BLOCK
X-03
(BLACK)
(F) - (AC)
X-21
X-07
(F) - (E)
A/C RELAY
G-06
AT
G-08
REFRIGERANT PRESSURE SWITCH
G-07
ADDITIONAL FAN MOTOR
G-02
MAGNETIC CLUTCH (BLACK)
G-11
BLOWER MOTOR RELAY
①
FEDERAL & CALIFORNIA
IGNITION SWITCH
X-05
(BLUE)
JOINT CONNECTOR
G-10
(GREEN)
(F) - (I)
X-16
CANADA
④
X-19
(F) - (I)
X-04
FUSE BOX
G-01
BLOWER UNIT
G-09
BLOWER MOTOR
CANADA
X-05
IGNITION SWITCH
(F) - (I)
X-19
⑥
THERMOSWITCH
G-03
HEATER CONTROL UNIT
G-04
(GREEN)
(F) - (I)
X-16
⑥
G-05
BLOWER UNIT

■ A/T CONTROL SYSTEM

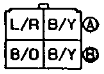
H-1


BATTERY
B (E)
X-01
X-02
80A
X-03
MAIN FUSE
W (F)
X-05
B2
B1
ST
OFF
ON
ACC
IG2
IG1
IGNITION SWITCH
X-05
X-04
L (F)
10A ②
METER
B/Y (F)
B/Y (F)
B/Y (F)
B/Y (F)
X-18
B/Y (I)
X-10
B/Y (E)
B/Y (E)
B/Y (F)
B/Y (F)
Ⓑ
Ⓐ
H-02
KICKDOWN SWITCH
4-3 SWITCH
H-02
INSTRUMENT CLUSTERS (SECTION C)
㉗
L/B (I)
H-04
OD OFF SWITCH
H-04
L/B (I)
X-19
L/B (F)
H-06
OD CANSEL SOLENOID
H-06
L/Y (E)
L/Y (F)
H-07
LOCKUP SOLENOID
H-07
L (E)
X-22
L (F)
H-03
KICKDOWN RELAY
H-03
L/O (F)
W/B (F)
B/Y (F)
B/O (F)
L/R (F)
H-01
1A
1D
1E
1C
1K
1N
A/T CONTROL UNIT
1M
H-01
X-22
1B
1F
1H
1J
1L
H-01
B (F)
L/W (F)
X-09
L/W (E)
H-05
OIL PRESSURE SWITCH
LG (F)
⑮
ENGINE CONTROL UNIT (SECTION B-1b)
LG/B (F)
㊺
CRUISE CONTROL UNIT (SECTION Q)
G/R (F)
㉝
INSTRUMENT CLUSTERS (SECTION C)
CRUISE CONTROL UNIT (SECTION Q)
W/B (G) (E)
WITH ABS
H-08
KICKDOWN SOLENOID
G
①

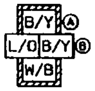
H-01 A/T CONTROL UNIT (F) ( )...CRUISE CONTROL UNIT


1D 1M 1K 1E 1C 1A
* L/O L/Y L/R L/B B/Y
* L G/R * (LG/B) LG L/W B/O B
1P 1N 1L 1J 1H 1F 1D 1B

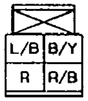
H-02 KICKDOWN & 4-3 SWITCH (F)



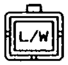
H-03 KICKDOWN RELAY (F)



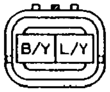
H-04 OD OFF SWITCH (I)



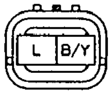
H-05 OIL PRESSURE SWITCH (E)



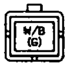
H-06 OD CANSEL SOLENOID (E)



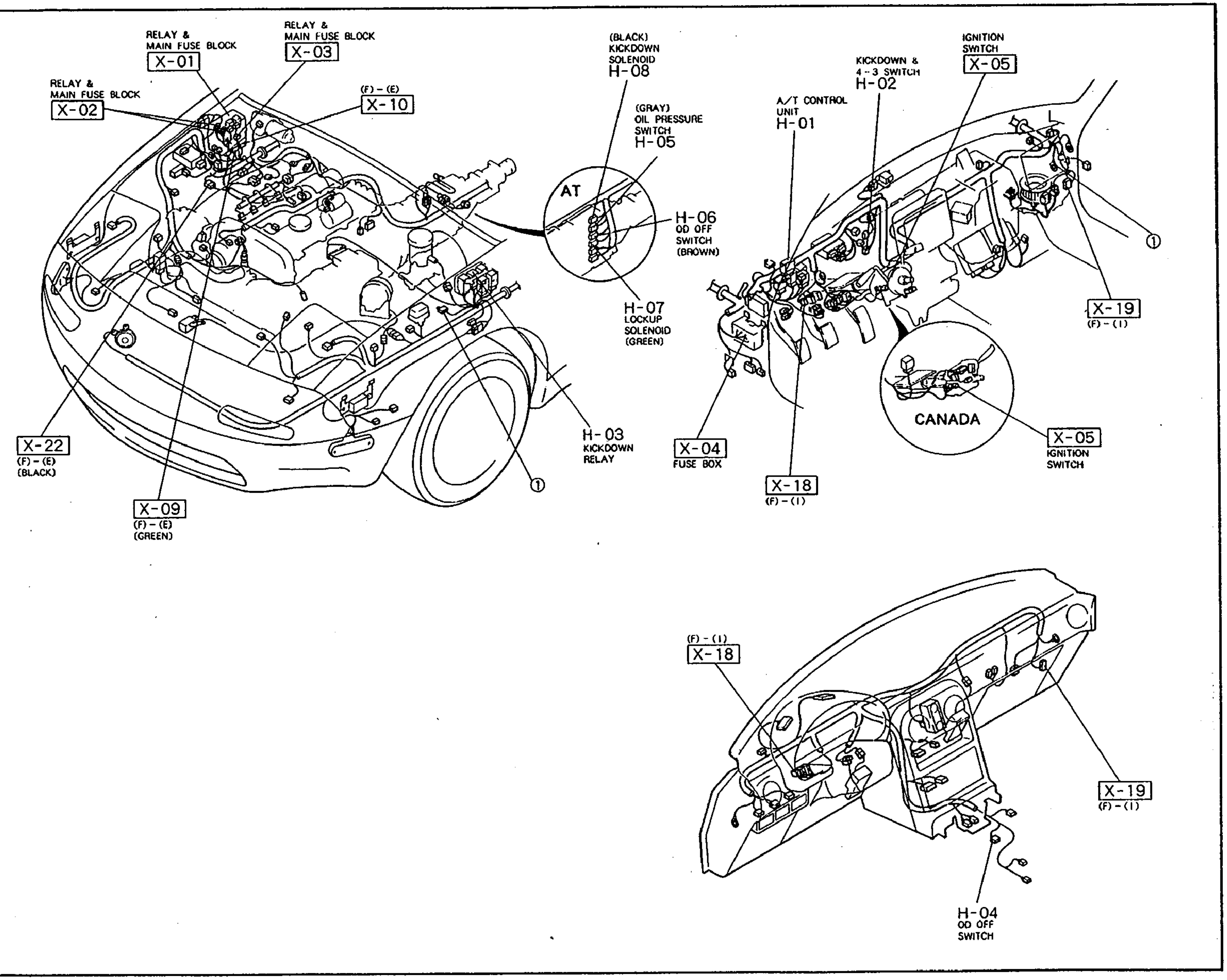
H-07 LOCKUP SOLENOID (E)



H-08 KICKDOWN SOLENOID (E) ( )...WITH ABS



H-1

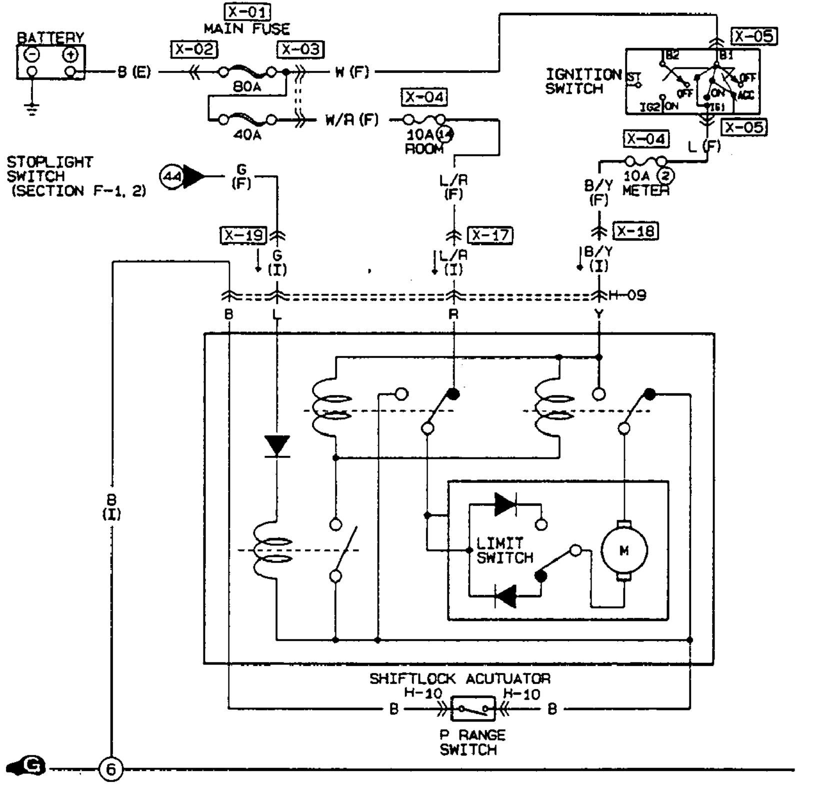

RELAY &
MAIN FUSE BLOCK
X-01
RELAY &
MAIN FUSE BLOCK
X-03
RELAY &
MAIN FUSE BLOCK
X-02
(F) - (E)
X-10
(BLACK)
KICKDOWN
SOLENOID
H-08
(GRAY)
OIL PRESSURE
SWITCH
H-05
AT
H-06
OD OFF
SWITCH
(BROWN)
H-07
LOCKUP
SOLENOID
(GREEN)
A/T CONTROL
UNIT
H-01
KICKDOWN &
4-3 SWITCH
H-02
IGNITION
SWITCH
X-05
L
①
X-19
(F) - (I)
CANADA
X-05
IGNITION
SWITCH
X-22
(F) - (E)
(BLACK)
X-09
(F) - (E)
(GREEN)
①
H-03
KICKDOWN
RELAY
X-04
FUSE BOX
X-18
(F) - (I)
(F) - (I)
X-18
X-19
(F) - (I)
H-04
OD OFF
SWITCH

Terminal Voltage

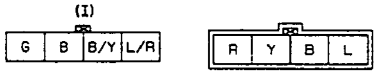
Terminal	Connected to	Voltage	Condition	
1A (Battery power)	Battery	Approx 12V	Ignition switch ON	
		Below 1.5V	Ignition switch OFF	
1B (Ground)	—	Below 1.5V	—	
1C (Input)	OD OFF switch	Approx. 12V	OD OFF switch released • OD not available	
		Below 1.5V	OD OFF switch depressed • OD available	
1D (Input)	Kickdown switch	Approx. 12V	Switch ON: • Throttle opening 7/8—8/8	
		Below 1.5V	Switch OFF: • Other than conditions above	
1E (Input)	4-3 switch	Approx. 12V	Switch ON: • Throttle opening 6/8—8/8	
		Below 1.5V	Switch OFF: • Other than conditions above	
1F (Input)	Oil pressure switch	Approx. 12V	Switch OFF: • 1st, 2nd, and 3rd gear positions in forward ranges • P, R, and N ranges	
		Below 1.5V	Switch ON: • OD gear position	
1H (Input)	Engine control unit	Below 1.5V	Ignition switch ON	
1I	—	—	—	
1J (Input)	Cruise control unit	Approx. 12V	Normal conditions	
		Below 1.5V	Set or Resume switch ON, or vehicle speed 8 km/h (5 mph) lower than preset speed (Driving vehicle: cruise control operation)	
1K (Output)	OD cancel solenoid	Approx. 12V	Solenoid OFF: • OD gear position	
		Below 1.5V	Solenoid ON: • 1st, 2nd, and 3rd gear positions in forward ranges • P, R, and N ranges	
1L (Input)	Speed sensor	1.5—7V	During driving	
		Approx. 7V or below 1.5V	Vehicle stopped	
1M (Input)	Kickdown relay	Approx. 12V	Kickdown relay OFF: • Other than conditions below	
		Below 1.5V	Kickdown relay ON: • Kickdown switch ON (throttle opening more than 7/8)	
1N (Output)	Lockup solenoid	Approx. 12V	Solenoid OFF: • Lockup prohibition	Ignition switch ON
		Below 1.5V	Solenoid ON: • Lockup	Engine running

A/T ■SHIFTLOCK SYSTEM

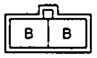
H-2


X-01
MAIN FUSE
BATTERY
X-02
X-03
B (E)
80A
W (F)
40A
W/R (F)
X-04
10A ⑭
ROOM
X-05
IGNITION SWITCH
B2
B1
ST
OFF
ON
ACC
IG2
IG1
X-05
L (F)
X-04
10A ②
METER
B/Y (F)
STOPLIGHT SWITCH (SECTION F-1, 2)
㊹
G (F)
L/R (F)
X-19
G (I)
X-17
L/R (I)
X-18
B/Y (I)
H-09
B
L
R
Y
B (I)
LIMIT SWITCH
M
SHIFTLOCK ACUTUATOR
H-10
H-10
B
B
P RANGE SWITCH
G
6

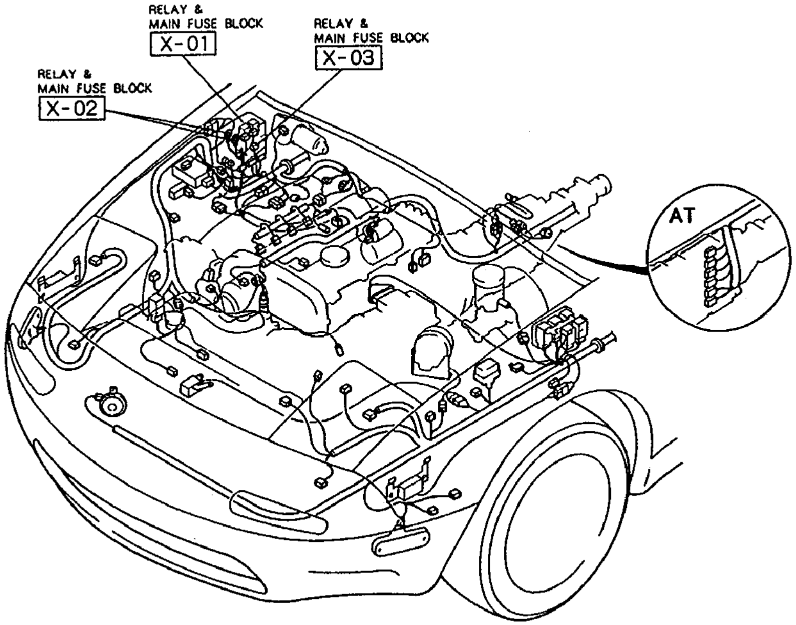
H-09 SHIFTLOCK ACUTUATOR (I)

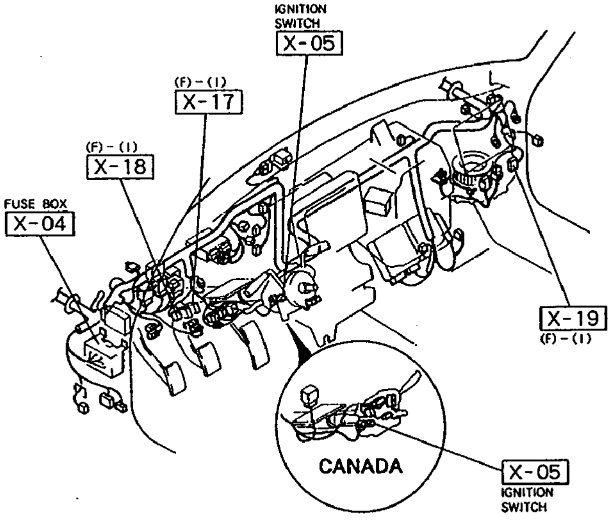

(I)
G
B
B/Y
L/R
R
Y
B
L

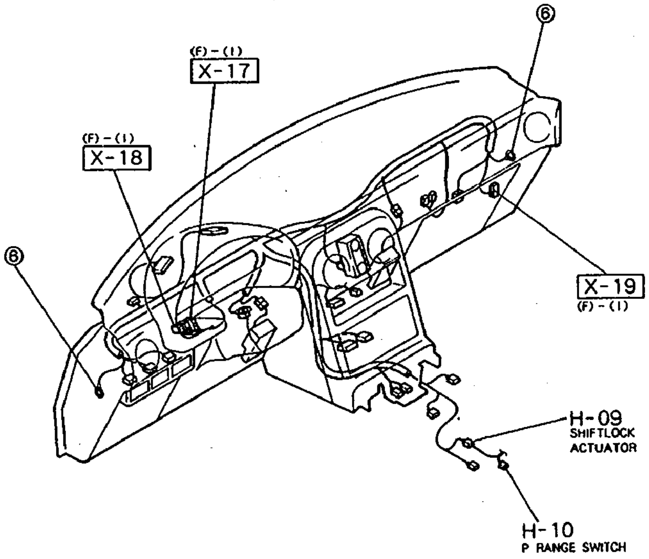
H-10 P RANGE SWITCH



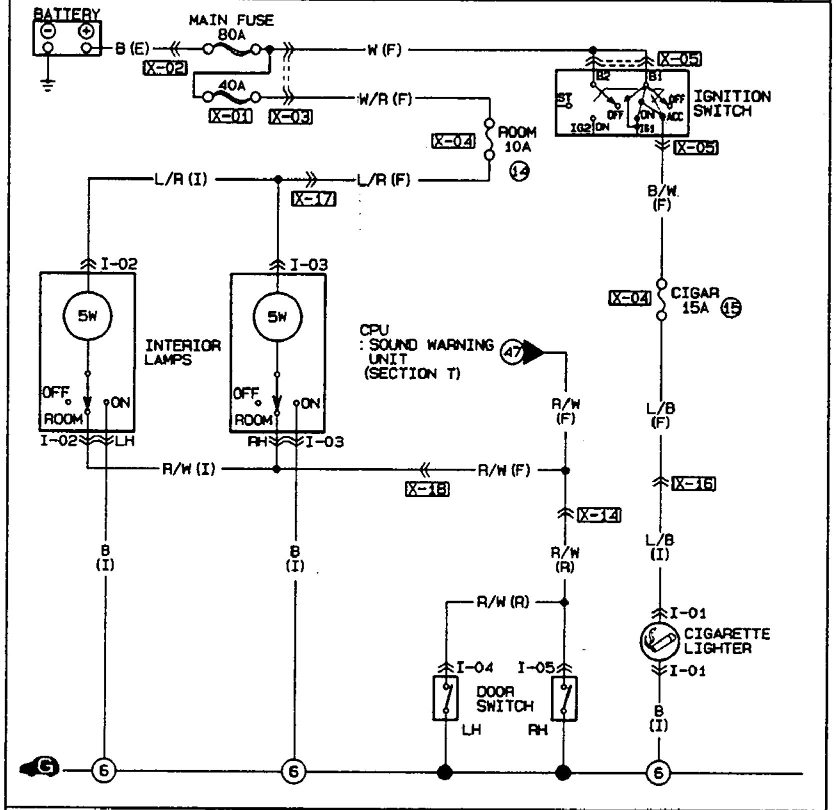
H-2

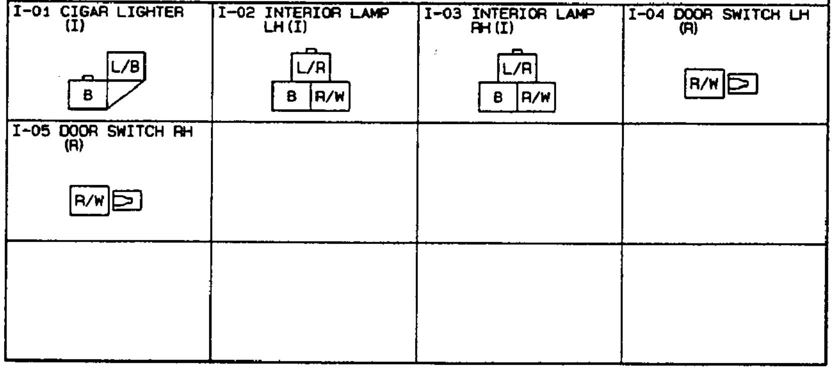

RELAY &
MAIN FUSE BLOCK
X-01
RELAY &
MAIN FUSE BLOCK
X-03
RELAY &
MAIN FUSE BLOCK
X-02
AT


IGNITION
SWITCH
X-05
(F)-(1)
X-17
(F)-(1)
X-18
FUSE BOX
X-04
X-19
(F)-(1)
CANADA
X-05
IGNITION
SWITCH

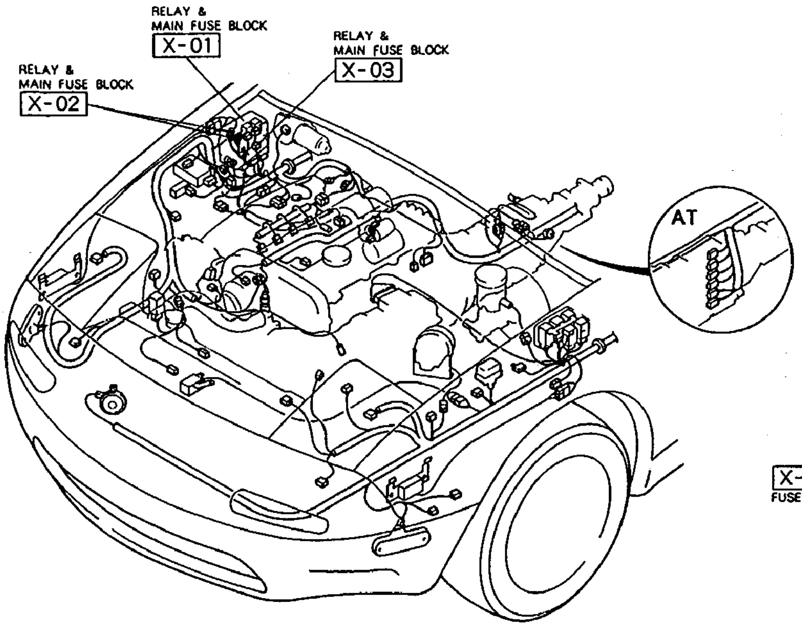

⑥
(F)-(1)
X-17
(F)-(1)
X-18
⑥
X-19
(F)-(1)
H-09
SHIFTLOCK
ACTUATOR
H-10
P RANGE SWITCH

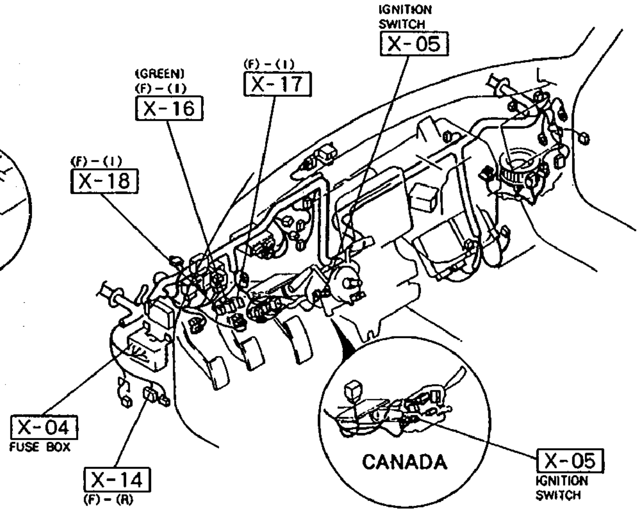
■ CIGAR LIGHTER
■ INTERIOR LAMPS

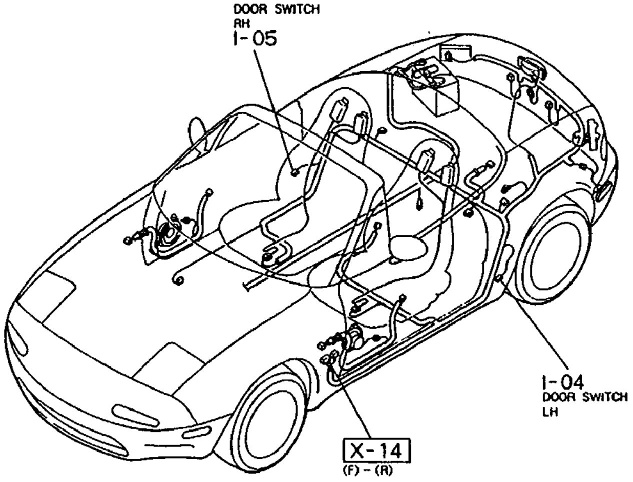

BATTERY
B (E)
X-02
MAIN FUSE
80A
40A
X-01
X-03
W (F)
W/R (F)
X-05
IGNITION SWITCH
B2
B1
ST
OFF
ON
ACC
IG2
IG1
X-04
ROOM
10A
14
L/R (I)
L/R (F)
X-17
B/W
(F)
I-02
I-03
5W
INTERIOR LAMPS
OFF
ROOM
ON
I-02
LH
RH
I-03
CIGAR
15A
15
CPU
: SOUND WARNING UNIT
(SECTION T)
47
R/W
(F)
L/B
(F)
R/W (I)
R/W (F)
X-18
X-16
X-14
B
(I)
R/W
(R)
L/B
(I)
R/W (R)
I-01
CIGARETTE LIGHTER
I-04
I-05
DOOR SWITCH
LH
RH
G
6

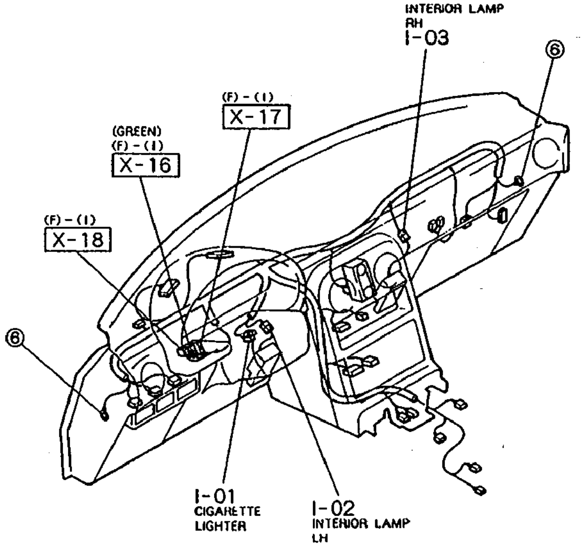

I-01 CIGAR LIGHTER (I)
L/B
B
I-02 INTERIOR LAMP LH (I)
L/R
B
R/W
I-03 INTERIOR LAMP RH (I)
L/R
B
R/W
I-04 DOOR SWITCH LH (R)
R/W
I-05 DOOR SWITCH RH (R)
R/W

I


RELAY &
MAIN FUSE BLOCK
X-01
RELAY &
MAIN FUSE BLOCK
X-03
RELAY &
MAIN FUSE BLOCK
X-02
AT

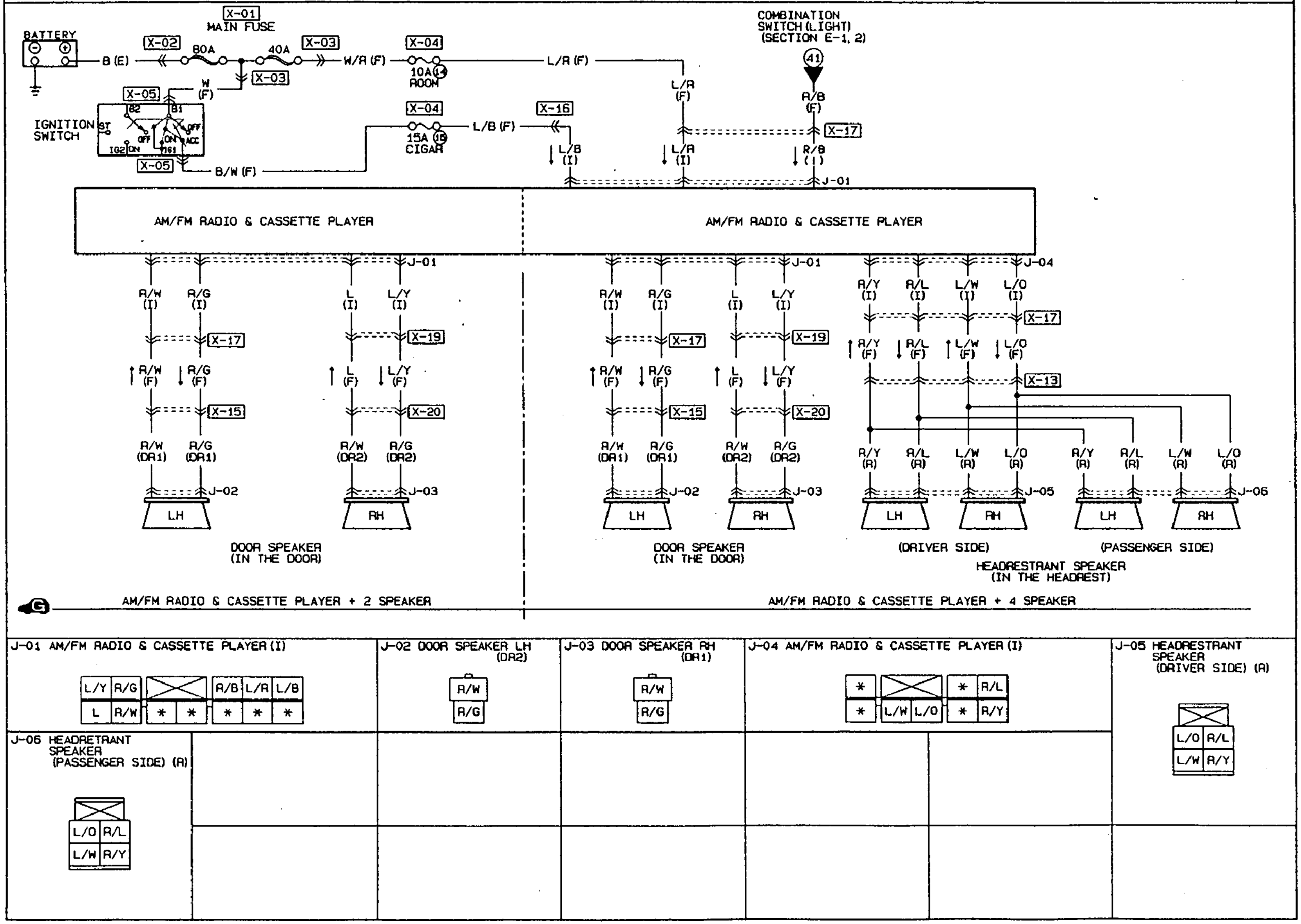

IGNITION
SWITCH
X-05
(F)-(I)
X-17
(GREEN)
(F)-(I)
X-16
(F)-(I)
X-18
X-04
FUSE BOX
X-14
(F)-(R)
CANADA
X-05
IGNITION
SWITCH


DOOR SWITCH
RH
I-05
I-04
DOOR SWITCH
LH
X-14
(F)-(R)

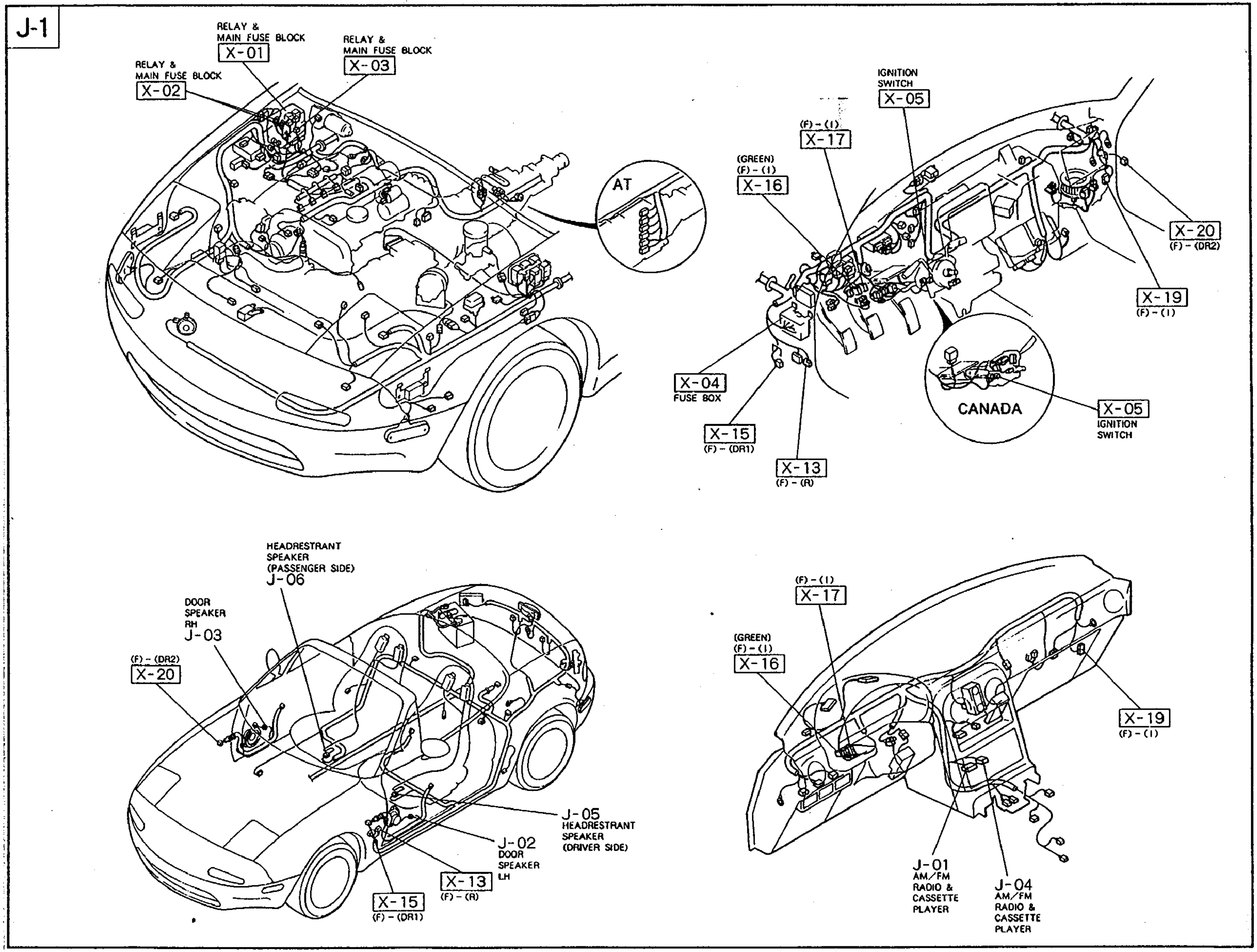

INTERIOR LAMP
RH
I-03
⑥
(F)-(I)
X-17
(GREEN)
(F)-(I)
X-16
(F)-(I)
X-18
⑥
I-01
CIGARETTE
LIGHTER
I-02
INTERIOR LAMP
LH

■ AUDIO SYSTEM (TYPE1, 2)

J-1

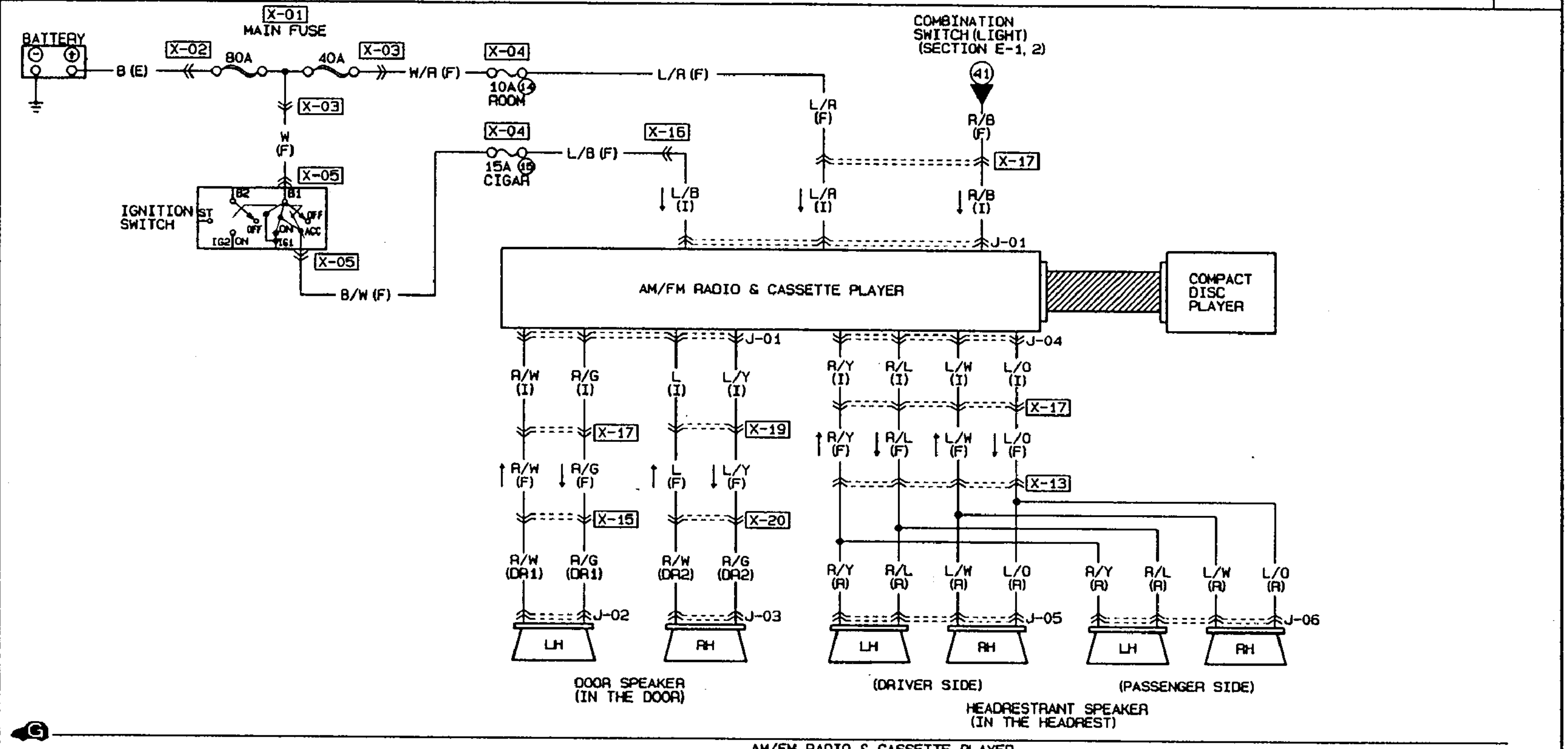

X-01 MAIN FUSE
BATTERY
X-02
80A
40A
X-03
B (E)
W/R (F)
X-04
10A ⑭ ROOM
L/R (F)
COMBINATION SWITCH (LIGHT) (SECTION E-1, 2)
㊶
X-05
W (F)
IGNITION SWITCH
ST B2 B1 OFF ON ACC IG2 IG1
X-04
15A ⑮ CIGAR
L/B (F)
X-16
B/W (F)
L/R (F)
R/B (F)
X-17
L/B (I)
L/R (I)
R/B (I)
J-01
AM/FM RADIO & CASSETTE PLAYER
AM/FM RADIO & CASSETTE PLAYER
J-01
R/W (I)
R/G (I)
L (I)
L/Y (I)
X-17
X-19
R/W (F)
R/G (F)
L (F)
L/Y (F)
X-15
X-20
R/W (DR1)
R/G (DR1)
R/W (DR2)
R/G (DR2)
J-02
J-03
LH
RH
DOOR SPEAKER (IN THE DOOR)
J-01
J-04
R/Y (I)
R/L (I)
L/W (I)
L/O (I)
X-17
R/Y (F)
R/L (F)
L/W (F)
L/O (F)
X-13
R/Y (R)
R/L (R)
L/W (R)
L/O (R)
J-05
J-06
(DRIVER SIDE)
(PASSENGER SIDE)
HEADRESTRANT SPEAKER (IN THE HEADREST)
AM/FM RADIO & CASSETTE PLAYER + 2 SPEAKER
AM/FM RADIO & CASSETTE PLAYER + 4 SPEAKER
G
J-01 AM/FM RADIO & CASSETTE PLAYER (I)
L/Y R/G R/B L/R L/B
L R/W * * * * *
J-02 DOOR SPEAKER LH (DR2)
R/W
R/G
J-03 DOOR SPEAKER RH (DR1)
R/W
R/G
J-04 AM/FM RADIO & CASSETTE PLAYER (I)
* * R/L
* L/W L/O * R/Y
J-05 HEADRESTRANT SPEAKER (DRIVER SIDE) (R)
L/O R/L
L/W R/Y
J-06 HEADRETRANT SPEAKER (PASSENGER SIDE) (R)
L/O R/L
L/W R/Y

J-1

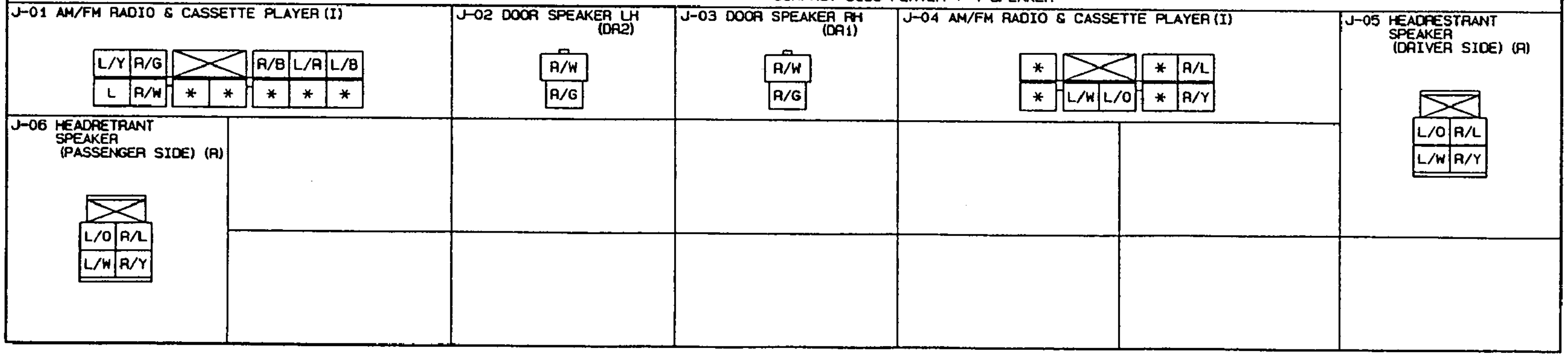

RELAY & MAIN FUSE BLOCK X-01
RELAY & MAIN FUSE BLOCK X-03
RELAY & MAIN FUSE BLOCK X-02
AT
IGNITION SWITCH X-05
(F) - (I) X-17
(GREEN) (F) - (I) X-16
X-20 (F) - (DR2)
X-19 (F) - (I)
X-04 FUSE BOX
CANADA
X-05 IGNITION SWITCH
X-15 (F) - (DR1)
X-13 (F) - (R)
HEADRESTRANT SPEAKER (PASSENGER SIDE) J-06
DOOR SPEAKER RH J-03
(F) - (DR2) X-20
J-05 HEADRESTRANT SPEAKER (DRIVER SIDE)
J-02 DOOR SPEAKER LH
X-13 (F) - (R)
X-15 (F) - (DR1)
(F) - (I) X-17
(GREEN) (F) - (I) X-16
X-19 (F) - (I)
J-01 AM/FM RADIO & CASSETTE PLAYER
J-04 AM/FM RADIO & CASSETTE PLAYER

■ AUDIO SYSTEM (TYPE3)

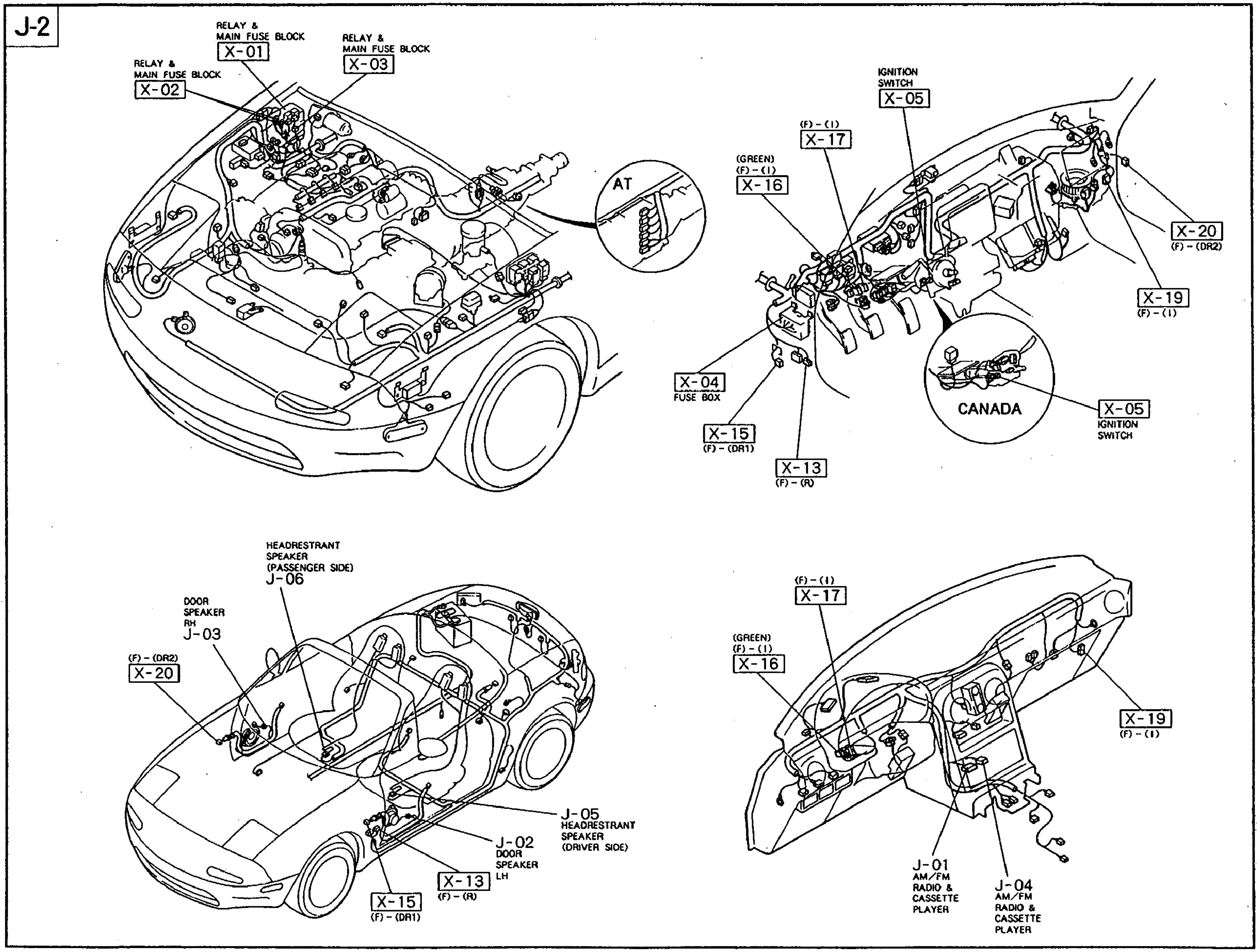
J-2


X-01
MAIN FUSE
BATTERY
X-02
80A
40A
X-03
B (E)
W/R (F)
X-04
10A ⑭
ROOM
L/R (F)
COMBINATION SWITCH (LIGHT) (SECTION E-1, 2)
41
R/B (F)
L/R (F)
X-03
W (F)
X-05
IGNITION SWITCH
ST
B2
B1
OFF
ON
ACC
IG2
IG1
X-05
B/W (F)
X-04
15A ⑮
CIGAR
L/B (F)
X-16
L/B (I)
L/R (I)
R/B (I)
X-17
J-01
AM/FM RADIO & CASSETTE PLAYER
COMPACT DISC PLAYER
J-01
J-04
R/W (I)
R/G (I)
L (I)
L/Y (I)
R/Y (I)
R/L (I)
L/W (I)
L/O (I)
X-17
X-19
X-17
R/W (F)
R/G (F)
L (F)
L/Y (F)
R/Y (F)
R/L (F)
L/W (F)
L/O (F)
X-13
X-15
X-20
R/W (DR1)
R/G (DR1)
R/W (DR2)
R/G (DR2)
R/Y (R)
R/L (R)
L/W (R)
L/O (R)
R/Y (R)
R/L (R)
L/W (R)
L/O (R)
J-02
J-03
J-05
J-06
LH
RH
LH
RH
LH
RH
DOOR SPEAKER (IN THE DOOR)
(DRIVER SIDE)
(PASSENGER SIDE)
HEADRESTRANT SPEAKER (IN THE HEADREST)
G

AM/FM RADIO & CASSETTE PLAYER + COMPACT DISC PLAYER + 4 SPEAKER

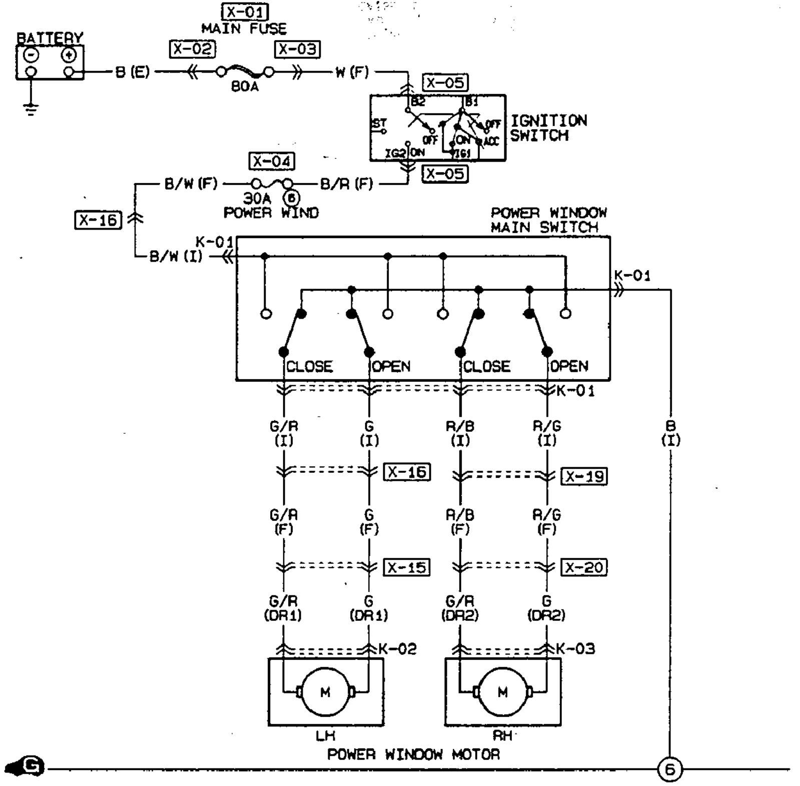

J-01 AM/FM RADIO & CASSETTE PLAYER (I)
L/Y
R/G
R/B
L/R
L/B
L
R/W
*
*
*
*
*
J-02 DOOR SPEAKER LH (DR2)
R/W
R/G
J-03 DOOR SPEAKER RH (DR1)
R/W
R/G
J-04 AM/FM RADIO & CASSETTE PLAYER (I)
*
*
R/L
*
L/W
L/O
*
R/Y
J-05 HEADRESTRANT SPEAKER (DRIVER SIDE) (R)
L/O
R/L
L/W
R/Y
J-06 HEADRETRANT SPEAKER (PASSENGER SIDE) (R)
L/O
R/L
L/W
R/Y

J-2


RELAY & MAIN FUSE BLOCK
X-01
RELAY & MAIN FUSE BLOCK
X-03
RELAY & MAIN FUSE BLOCK
X-02
AT
IGNITION SWITCH
X-05
(F) - (I)
X-17
(GREEN)
(F) - (I)
X-16
X-20
(F) - (DR2)
X-19
(F) - (I)
X-04
FUSE BOX
X-15
(F) - (DR1)
X-13
(F) - (R)
CANADA
X-05
IGNITION SWITCH
HEADRESTRANT SPEAKER (PASSENGER SIDE)
J-06
DOOR SPEAKER RH
J-03
(F) - (DR2)
X-20
J-05
HEADRESTRANT SPEAKER (DRIVER SIDE)
J-02
DOOR SPEAKER LH
X-13
(F) - (R)
X-15
(F) - (DR1)
(F) - (I)
X-17
(GREEN)
(F) - (I)
X-16
X-19
(F) - (I)
J-01
AM/FM RADIO & CASSETTE PLAYER
J-04
AM/FM RADIO & CASSETTE PLAYER

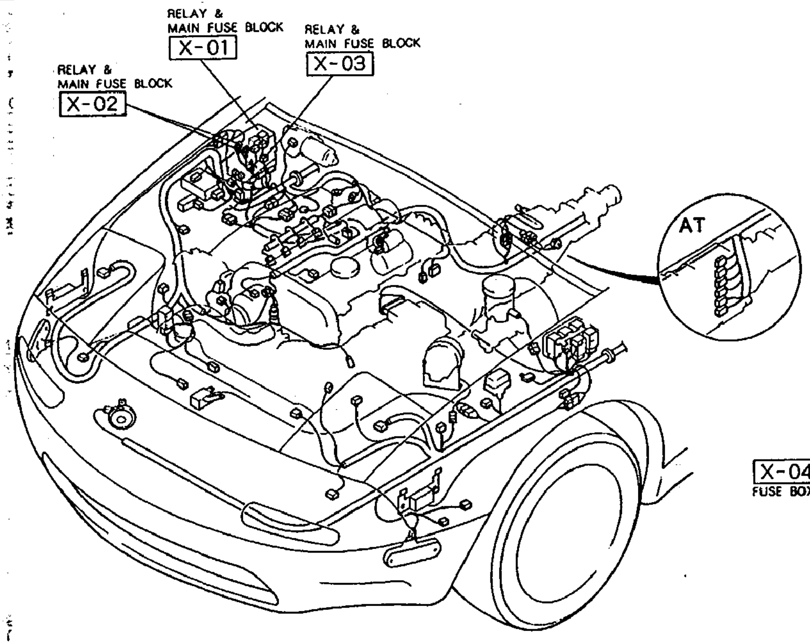
■ POWER WINDOW

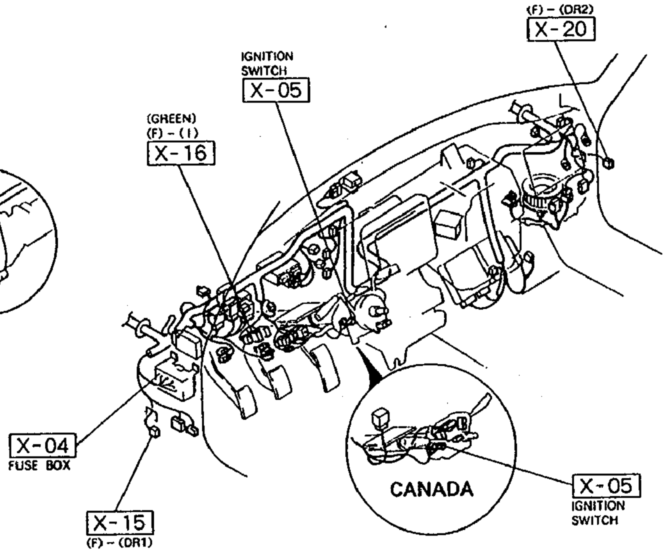
K

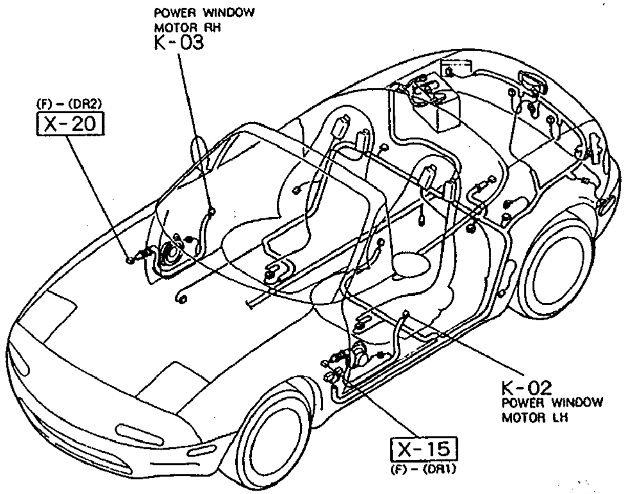

X-01
MAIN FUSE
BATTERY
X-02
X-03
B (E)
80A
W (F)
X-05
B2
B1
ST
OFF
IG2 ON
ON
IG1
OFF
ACC
IGNITION SWITCH
X-05
X-04
B/W (F)
30A
⑥
POWER WIND
B/R (F)
X-16
POWER WINDOW MAIN SWITCH
K-01
B/W (I)
K-01
CLOSE
OPEN
CLOSE
OPEN
K-01
G/R (I)
G (I)
R/B (I)
R/G (I)
B (I)
X-16
X-19
G/R (F)
G (F)
R/B (F)
R/G (F)
X-15
X-20
G/R (DR1)
G (DR1)
G/R (DR2)
G (DR2)
K-02
K-03
M
M
LH
RH
POWER WINDOW MOTOR
G
⑥

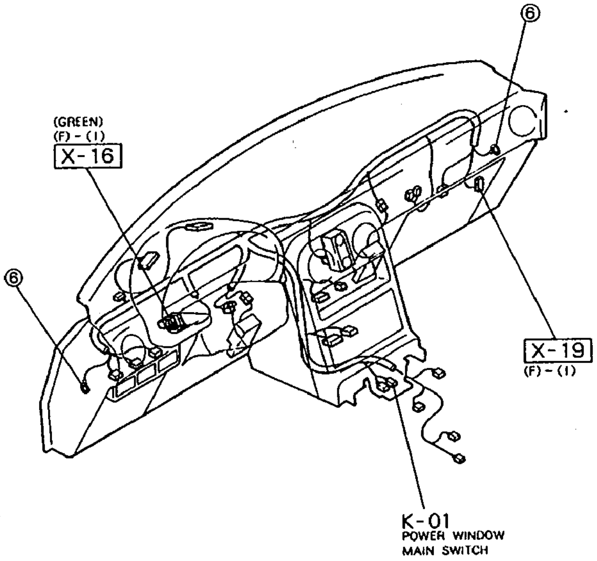
K-01 POWER WINDOW MAIN SWITCH (I)	K-02 POWER WINDOW MOTOR LH (DR1)	K-03 POWER WINDOW MOTOR RH (DR2)	
R/B G/R B/W R/G G B	G/R G	G/R G	

K

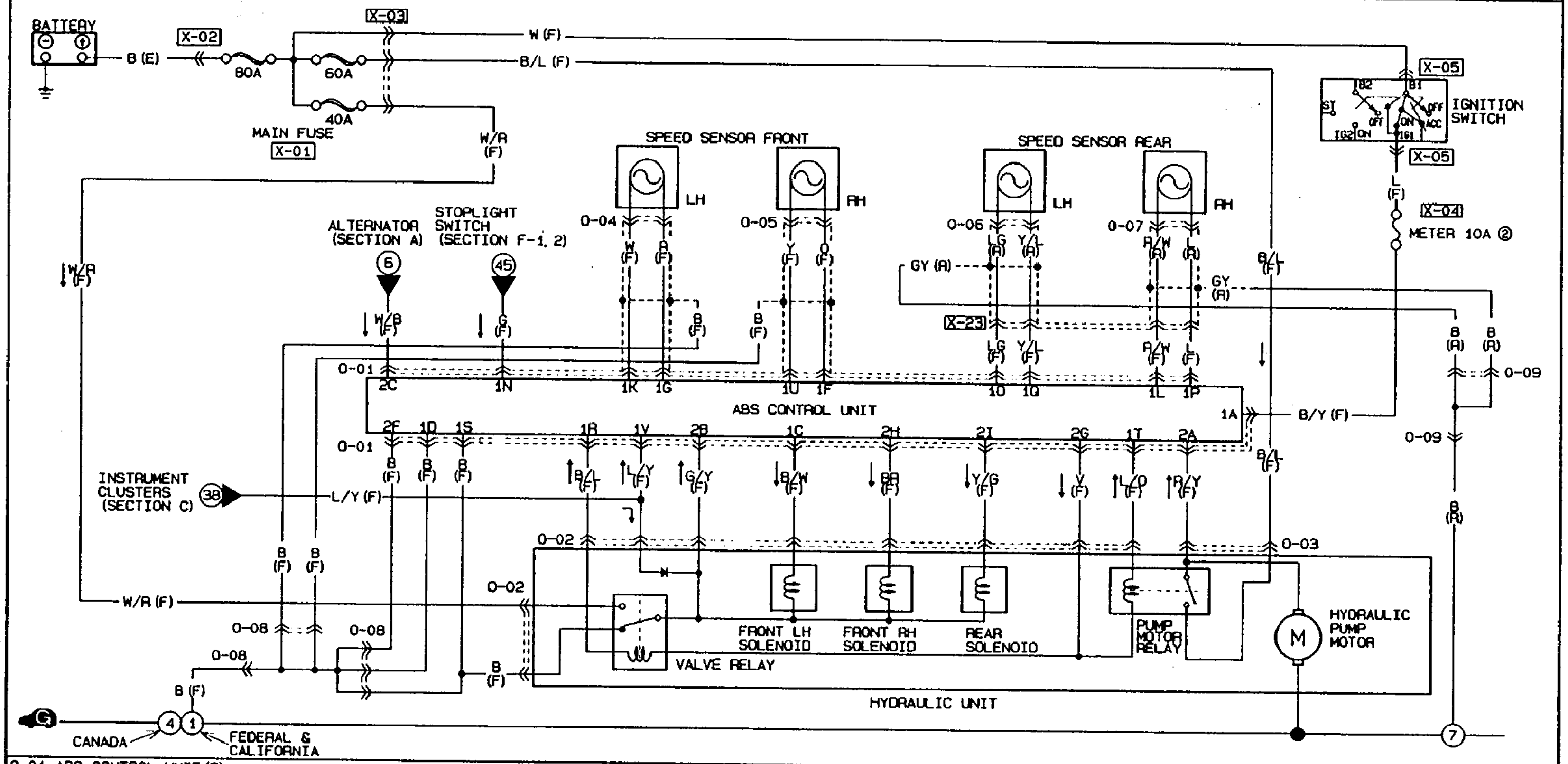

RELAY &
MAIN FUSE BLOCK
X-01
RELAY &
MAIN FUSE BLOCK
X-03
RELAY &
MAIN FUSE BLOCK
X-02
AT


(F) - (DR2)
X-20
IGNITION
SWITCH
X-05
(GREEN)
(F) - (1)
X-16
X-04
FUSE BOX
X-15
(F) - (DR1)
CANADA
X-05
IGNITION
SWITCH


POWER WINDOW
MOTOR RH
K-03
(F) - (DR2)
X-20
K-02
POWER WINDOW
MOTOR LH
X-15
(F) - (DR1)


⑥
(GREEN)
(F) - (1)
X-16
⑥
X-19
(F) - (1)
K-01
POWER WINDOW
MAIN SWITCH

■ ABS (ANTI-LOCK BRAKE SYSTEM)

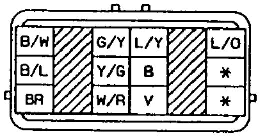

BATTERY
B (E)
X-02
80A
60A
40A
MAIN FUSE
X-01
X-03
W (F)
B/L (F)
W/R (F)
W/R (F)
SPEED SENSOR FRONT
LH
RH
0-04
W (F)
R (F)
0-05
Y (F)
O (F)
B (F)
B (F)
SPEED SENSOR REAR
LH
RH
0-06
LG (R)
Y/L (R)
0-07
R/W (R)
L (R)
GY (R)
GY (R)
X-23
LG (F)
Y/L (F)
R/W (F)
L (F)
X-05
IGNITION SWITCH
B2
B1
ST
IG2
IG1
OFF
ON
ACC
X-05
L (F)
X-04
METER 10A ②
B/L (F)
B (R)
B (R)
0-09
ALTERNATOR (SECTION A)
⑥
STOPLIGHT SWITCH (SECTION F-1, 2)
㊺
W/B (F)
G (F)
0-01
2C
1N
1K
1G
1U
1F
1O
1Q
1L
1P
ABS CONTROL UNIT
1A
B/Y (F)
0-01
2F
1D
1S
1R
1V
2B
1C
2H
2I
2G
1T
2A
B (F)
B (F)
B (F)
B/L (F)
L/Y (F)
G/Y (F)
B/W (F)
BR (F)
Y/G (F)
V (F)
L/O (F)
R/Y (F)
B/L (F)
0-09
B (R)
INSTRUMENT CLUSTERS (SECTION C)
㊳
L/Y (F)
0-02
0-03
B (F)
B (F)
0-02
W/R (F)
0-08
0-08
0-08
B (F)
B (F)
FRONT LH SOLENOID
FRONT RH SOLENOID
REAR SOLENOID
PUMP MOTOR RELAY
VALVE RELAY
M
HYDRAULIC PUMP MOTOR
HYDRAULIC UNIT
B (F)
G
④
①
CANADA
FEDERAL & CALIFORNIA
⑦

0-01 ABS CONTROL UNIT (F)

2I	2G	2E	2C	2A	1Y	1W	1U	1S	1Q	1O	1M	1K	1I	1G	1E	1C	1A
Y/G	V	*	W/B	R/Y	*	*	Y	B	Y/L	LG	*	W	*	R	*	B/W	B/Y

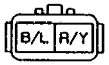
2H	2F	2D	2B	1Z	1X	1V	1T	1R	1P	1N	1L	1J	1H	1F	1D	1B
BR	B	*	G/Y	*	*	L/Y	L/O	B/L	L	G	R/W	*	*	O	B	*

0-02 HYDRAULIC UNIT (F)



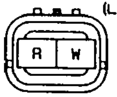
B/W	▨	G/Y	L/Y	▨	L/O
B/L	▨	Y/G	B	▨	*
BR	▨	W/R	V	▨	*

0-03 HYDRAULIC UNIT (F)



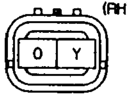
B/L	R/Y

0-04 SPEED SENSOR FRONT (LH) (F)



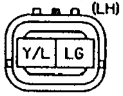
R	W

0-05 SPEED SENSOR FRONT (RH) (F)



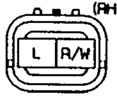
O	Y

0-06 SPEED SENSOR REAR (LH) (R)



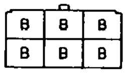
Y/L	LG

0-07 SPEED SENSOR REAR (RH) (R)



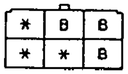
L	R/W

0-08 JOINT CONNECTOR (F)

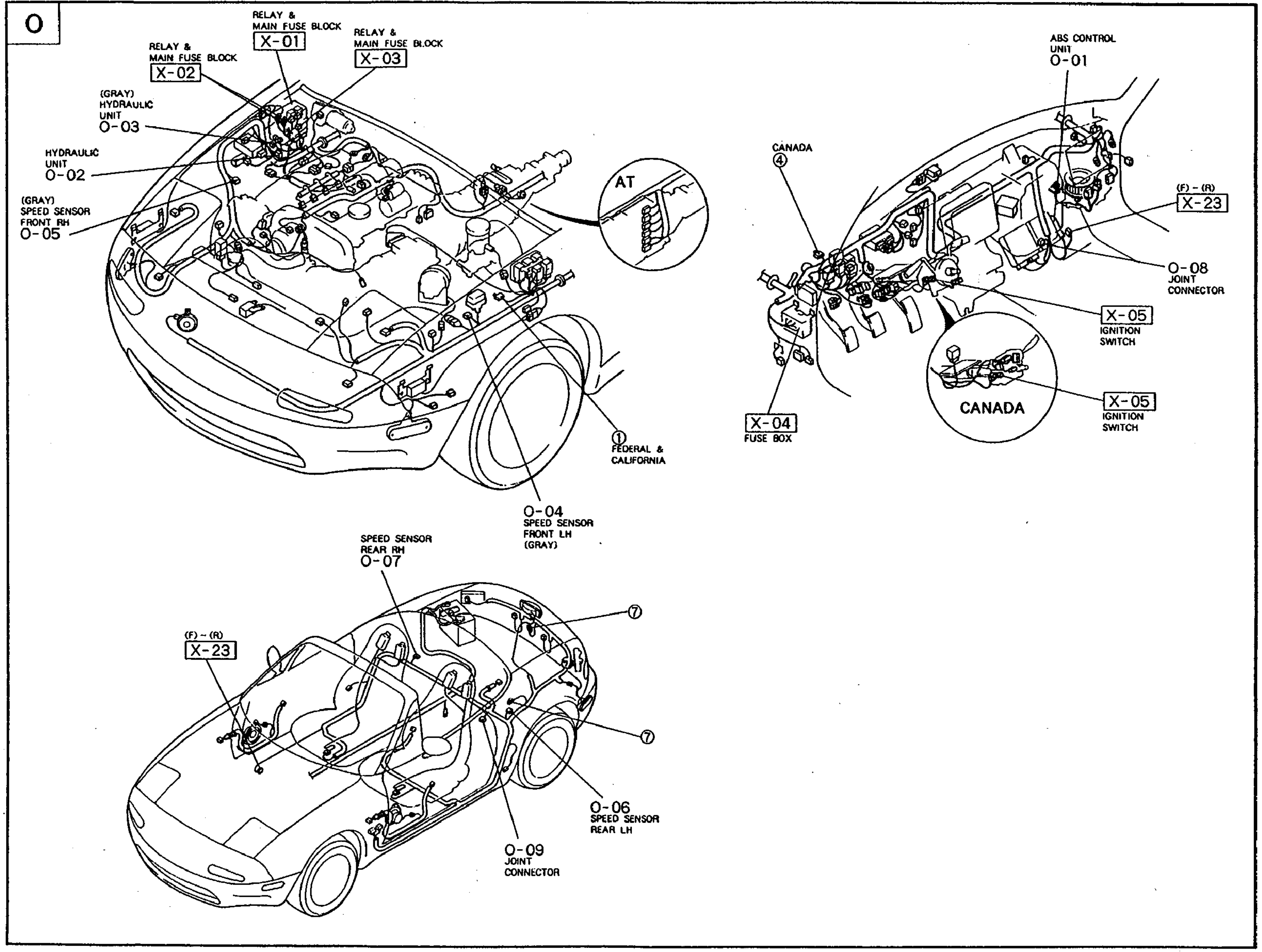


B	B	B
B	B	B

0-09 JOINT CONNECTOR (R)



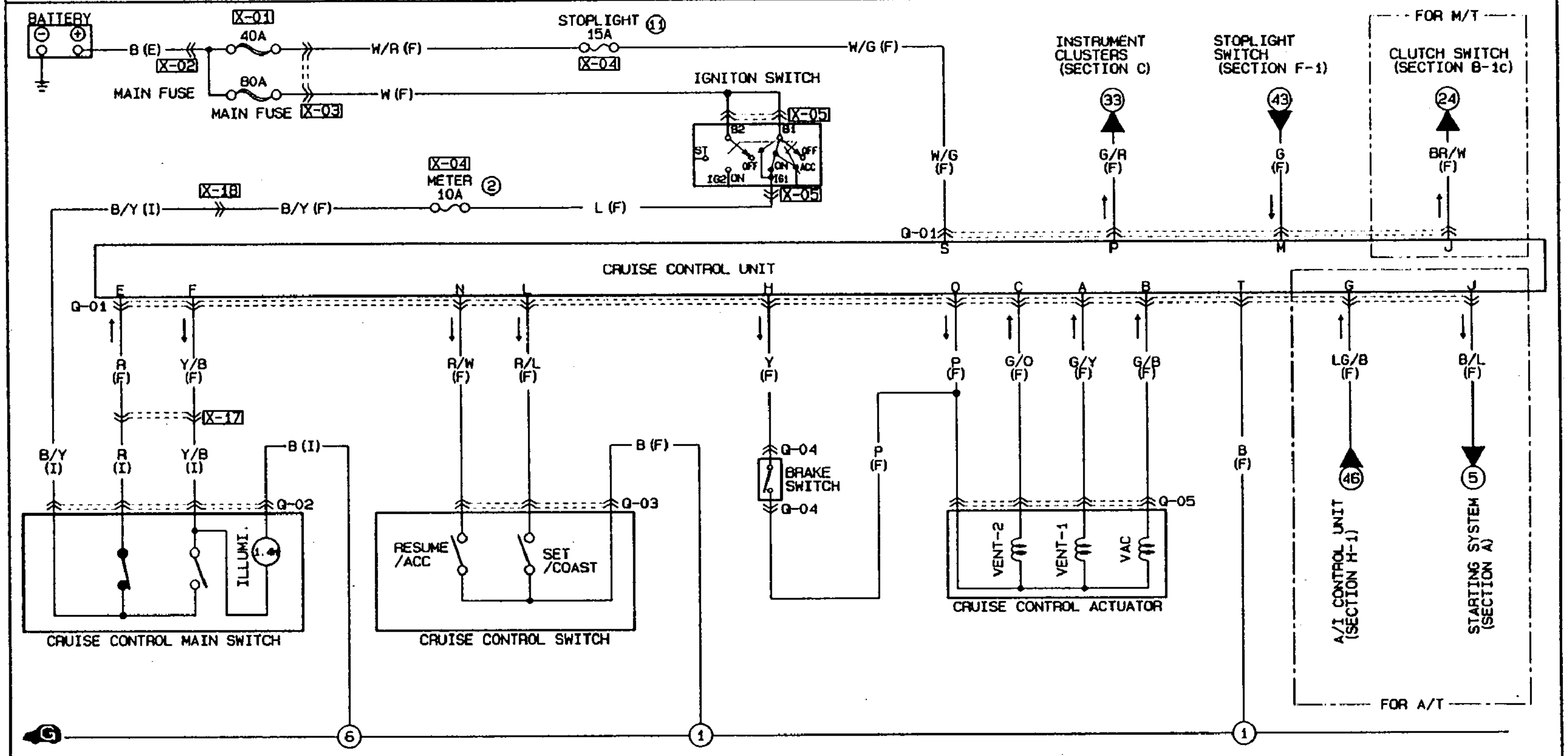
*	B	B
*	*	B


O
RELAY & MAIN FUSE BLOCK X-01
RELAY & MAIN FUSE BLOCK X-03
RELAY & MAIN FUSE BLOCK X-02
(GRAY) HYDRAULIC UNIT O-03
HYDRAULIC UNIT O-02
(GRAY) SPEED SENSOR FRONT RH O-05
AT
① FEDERAL & CALIFORNIA
O-04 SPEED SENSOR FRONT LH (GRAY)
ABS CONTROL UNIT O-01
CANADA ④
(F) - (R) X-23
O-08 JOINT CONNECTOR
X-05 IGNITION SWITCH
CANADA
X-05 IGNITION SWITCH
X-04 FUSE BOX
SPEED SENSOR REAR RH O-07
(F) - (R) X-23
⑦
⑦
O-06 SPEED SENSOR REAR LH
O-09 JOINT CONNECTOR

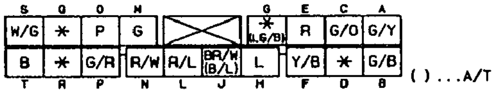
FEDERAL &
CALIFORNIA

■CRUISE CONTROL SYSTEM

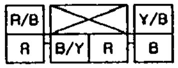
Q


BATTERY
B (E)
X-01
40A
X-02
MAIN FUSE
80A
MAIN FUSE
X-03
W/R (F)
W (F)
STOPLIGHT ⑪
15A
X-04
W/G (F)
IGNITON SWITCH
X-05
B2
B1
ST
IG2
ON
OFF
ACC
IG1
X-05
X-18
B/Y (I)
B/Y (F)
X-04
METER ②
10A
L (F)
W/G (F)
INSTRUMENT CLUSTERS (SECTION C)
㉝
G/R (F)
STOPLIGHT SWITCH (SECTION F-1)
㊸
G (F)
FOR M/T
CLUTCH SWITCH (SECTION B-1c)
㉔
BR/W (F)
Q-01
S
P
M
J
CRUISE CONTROL UNIT
Q-01
E
F
N
L
H
O
C
A
B
T
G
J
R (F)
Y/B (F)
R/W (F)
R/L (F)
Y (F)
P (F)
G/O (F)
G/Y (F)
G/B (F)
LG/B (F)
B/L (F)
X-17
B/Y (I)
R (I)
Y/B (I)
B (I)
Q-02
ILLUMI.
1.4W
CRUISE CONTROL MAIN SWITCH
B (F)
Q-03
RESUME /ACC
SET /COAST
CRUISE CONTROL SWITCH
Q-04
BRAKE SWITCH
Q-04
P (F)
Q-05
VENT-2
VENT-1
VAC
CRUISE CONTROL ACTUATOR
B (F)
㊻
A/T CONTROL UNIT (SECTION H-1)
⑤
STARTING SYSTEM (SECTION A)
FOR A/T
G
⑥
①
①

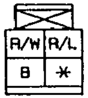
Q-01 CRUISE CONTROL UNIT (F)


S
Q
O
N
G
E
C
A
W/G
*
P
G
*
(LG/B)
R
G/O
G/Y
B
*
G/R
R/W
R/L
BR/W
(B/L)
L
Y/B
*
G/B
T
R
P
N
L
J
H
F
D
B
( ) ...A/T

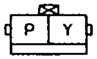
Q-02 CRUISE CONTROL MAIN SWITCH (I)



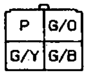
Q-03 CRUISE CONTROL SWITCH (F)



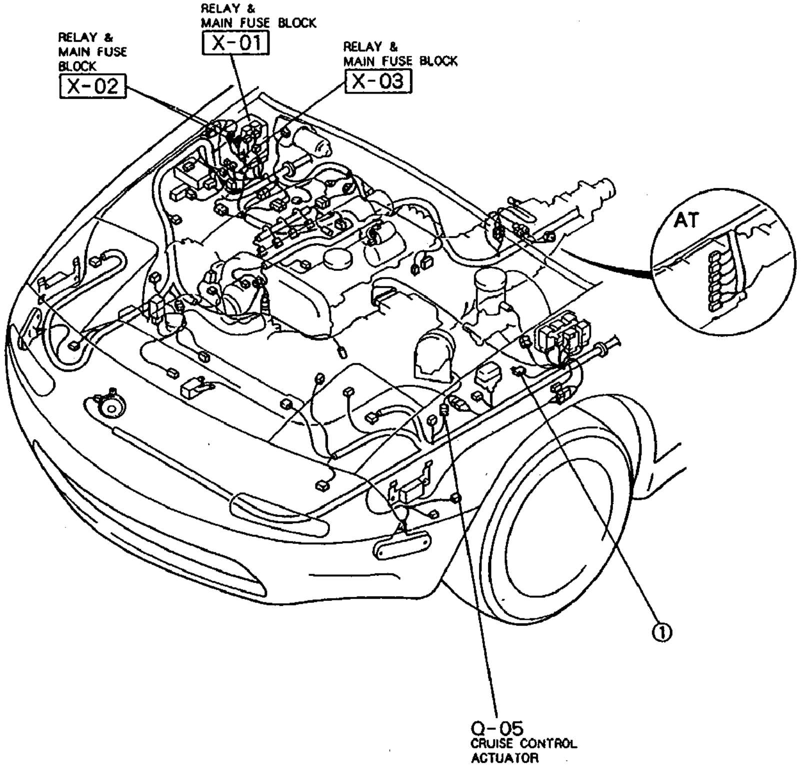
Q-04 BRAKE SWITCH (F)

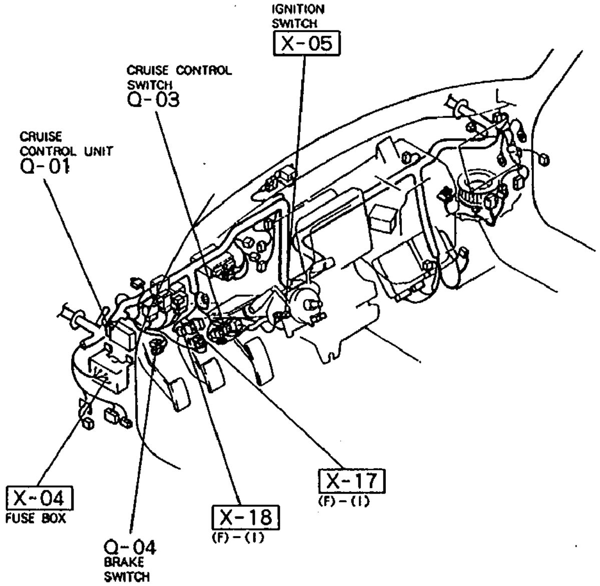


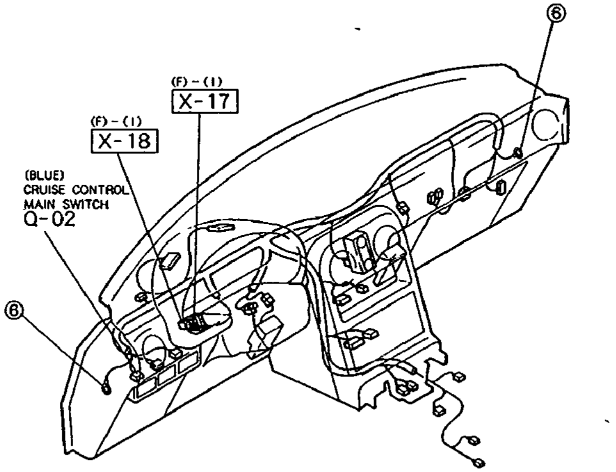
Q-05 CRUISE CONTROL ACTUATOR (F)



Q


RELAY & MAIN FUSE BLOCK
X-02
RELAY & MAIN FUSE BLOCK
X-01
RELAY & MAIN FUSE BLOCK
X-03
AT
①
Q-05
CRUISE CONTROL ACTUATOR


IGNITION SWITCH
X-05
CRUISE CONTROL SWITCH
Q-03
CRUISE CONTROL UNIT
Q-01
X-04
FUSE BOX
X-17
(F)-(1)
X-18
(F)-(1)
Q-04
BRAKE SWITCH

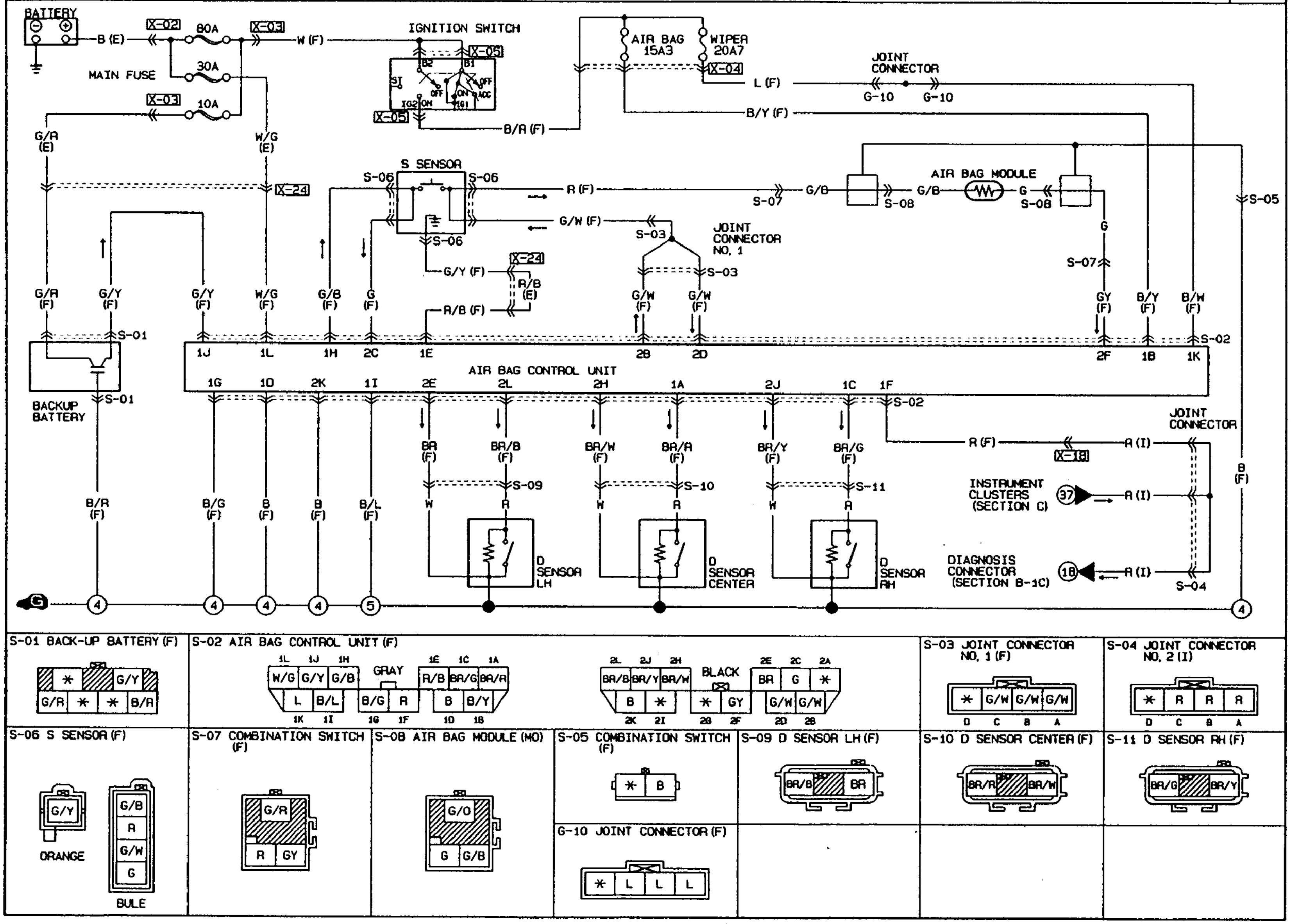

⑥
(F)-(1)
X-17
(F)-(1)
X-18
(BLUE)
CRUISE CONTROL MAIN SWITCH
Q-02
⑥

Terminal Voltage

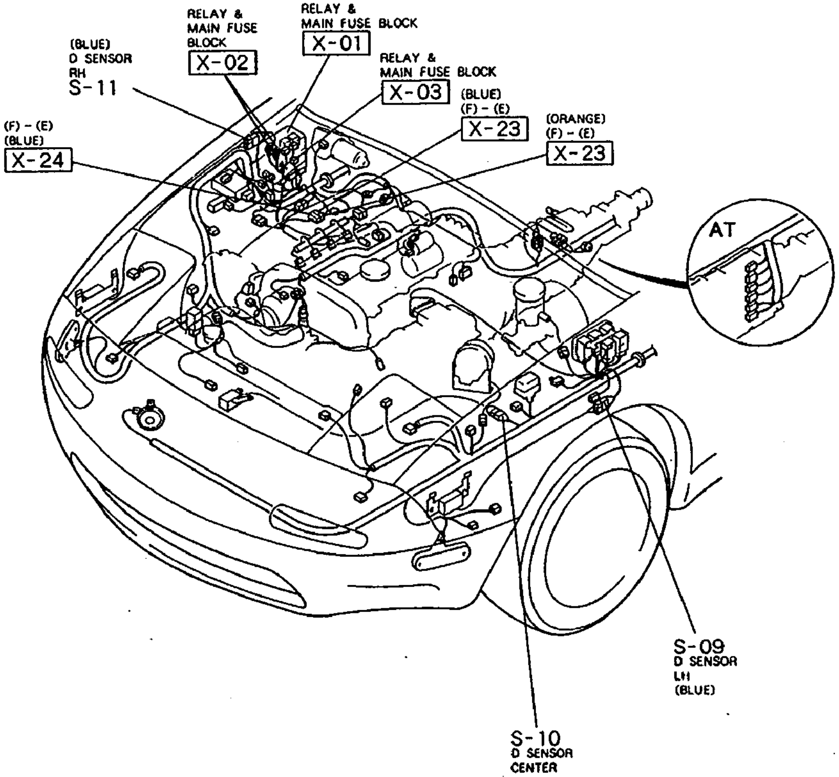
Terminal	Wire color	Connected to	Test condition	Specification	Action
a	(G/Y)	Actuator	Main switch off	0V	Go to Step 8
			Main switch on	9V	
b	(G/B)	Actuator	Main switch off	0V	
			Main switch on	9V	
c	(G/O)	Actuator	Main switch off	0V	
			Main switch on	9V	
e	(R)	Main switch	Main switch off	12V	Repair wire (R)
			Main switch off	0V	(Main switch—Cruise control unit)
f	(Y/B)	Main switch	Main switch off	0V	Repair wire (Y/B)
			Main switch on	12V	(Main switch—Cruise control unit)
g	(LG/B)	AT control unit	Ignition switch off	0V	Go to page K-
			Ignition switch on	12V	
h	(Y)	Brake switch	Brake pedal depressed	0V	Go to Step 4
			Brake pedal released	9V	
j	(B/L)	Inhibitor switch	Shift to "N" or "P" range	0V	Go to page K-
			Shift to other range	5V	
	(BR/W)	Clutch switch	Clutch pedal depressed	0V	Go to Step 5
			Clutch pedal released	12V	
l	(R/L)	Cruise control switch (Set switch and coast switch)	Main switch ON	12V	Go to Step 6
			While pushing set switch after main switch ON	0V	
m	(G)	Stoplight switch	Brake pedal depressed	12V	Go to Step 7
			Brake pedal released	0V	
n	(R/W)	Cruise control switch (Resume switch and accel switch)	Main switch ON	12V	Go to Step 6
			While pushing resume switch after main switch ON	0V	
o	(P)	Actuator	Main switch OFF	0V	Go to Step 8
			Main switch ON	9V	
p	(G/R)	Speed sensor	While rotating rear tires	Run out between 0—5V	Go to Step 9
s	(W/G)	Battery	Constant	12V	Repair wire (W/G)
t	(B)	Ground	Constant	0V	Repair wire (B)

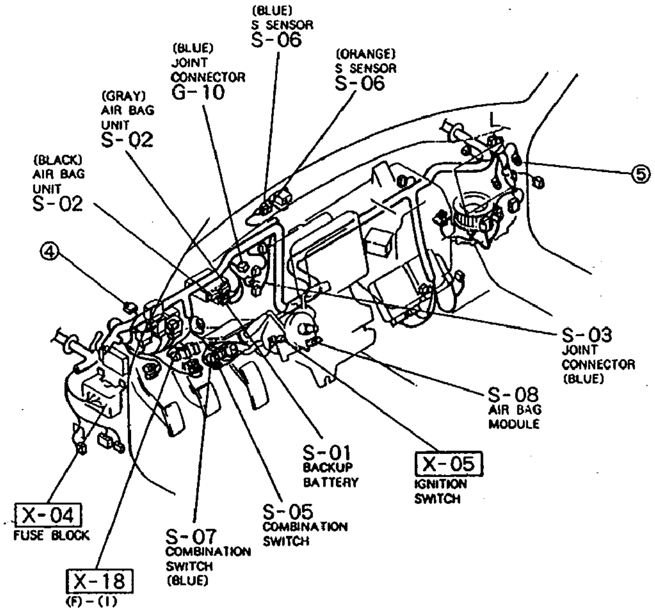
FEDERAL & CALIFORNIA ■ AIR BAG CONTROL SYSTEM

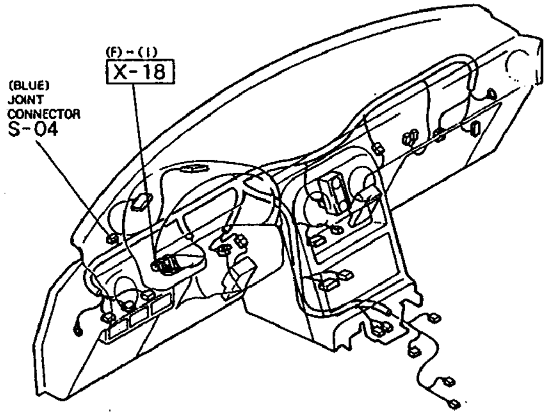
S


BATTERY
B (E)
X-02
80A
X-03
W (F)
MAIN FUSE
30A
X-03
10A
IGNITION SWITCH
X-05
B2
B1
ST
OFF
ON
ACC
IG2
IG1
B/R (F)
AIR BAG 15A3
WIPER 20A7
X-04
L (F)
JOINT CONNECTOR
G-10
B/Y (F)
G/R (E)
W/G (E)
X-24
S SENSOR
S-06
R (F)
G/W (F)
S-03
JOINT CONNECTOR NO. 1
G/Y (F)
R/B (E)
R/B (F)
S-07
G/B
S-08
AIR BAG MODULE
G
S-05
GY (F)
B/Y (F)
B/W (F)
S-02
G/R (F)
G/Y (F)
W/G (F)
G/B (F)
G (F)
G/W (F)
S-01
BACKUP BATTERY
AIR BAG CONTROL UNIT
1J
1L
1H
2C
1E
2B
2D
2F
1B
1K
1G
1D
2K
1I
2E
2L
2H
1A
2J
1C
1F
BR (F)
BR/B (F)
BR/W (F)
BR/R (F)
BR/Y (F)
BR/G (F)
S-09
S-10
S-11
W
R
D SENSOR LH
D SENSOR CENTER
D SENSOR RH
B/R (F)
B/G (F)
B (F)
B/L (F)
R (F)
X-18
R (I)
JOINT CONNECTOR
INSTRUMENT CLUSTERS (SECTION C)
37
DIAGNOSIS CONNECTOR (SECTION B-1C)
18
S-04
G
4
5
S-01 BACK-UP BATTERY (F)
G/Y
G/R
B/R
S-02 AIR BAG CONTROL UNIT (F)
1L 1J 1H
W/G G/Y G/B
GRAY
L B/L
1K 1I
B/G R
1G 1F
1E 1C 1A
R/B BR/G BR/R
B B/Y
1D 1B
2L 2J 2H
BR/B BR/Y BR/W
B
2K 2I
BLACK
GY
2G 2F
2E 2C 2A
BR G
G/W G/W
2D 2B
S-03 JOINT CONNECTOR NO. 1 (F)
G/W G/W G/W
D C B A
S-04 JOINT CONNECTOR NO. 2 (I)
R R R
D C B A
S-06 S SENSOR (F)
G/Y
ORANGE
G/B
R
G/W
G
BULE
S-07 COMBINATION SWITCH (F)
G/R
R GY
S-08 AIR BAG MODULE (MO)
G/O
G G/B
S-05 COMBINATION SWITCH (F)
B
G-10 JOINT CONNECTOR (F)
L L L
S-09 D SENSOR LH (F)
BR/B BR
S-10 D SENSOR CENTER (F)
BR/R BR/W
S-11 D SENSOR RH (F)
BR/G BR/Y

S

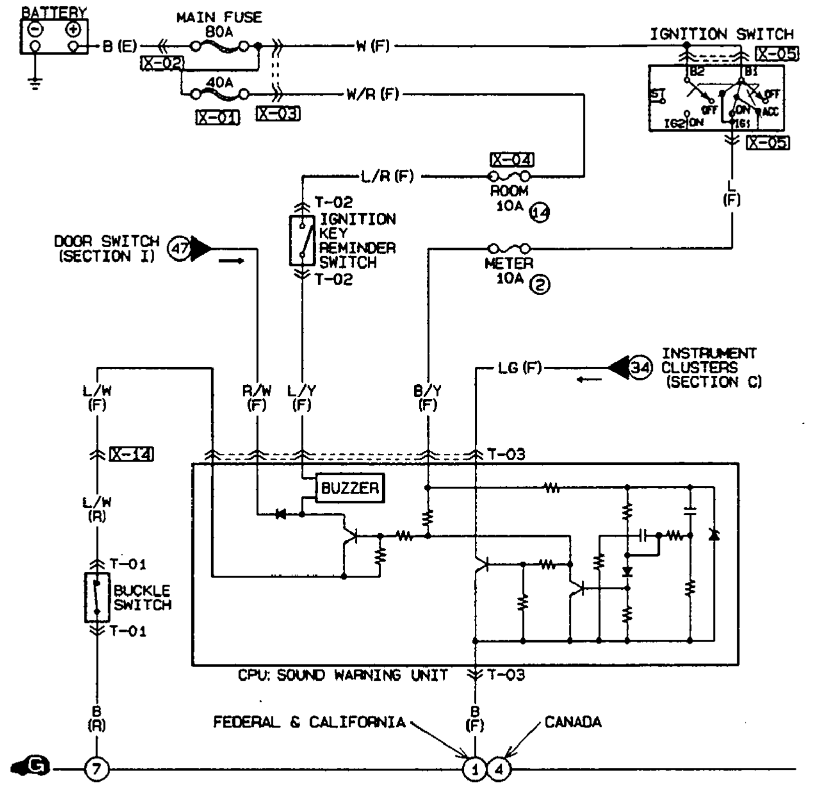

(BLUE)
D SENSOR
RH
S-11
RELAY &
MAIN FUSE
BLOCK
X-02
RELAY &
MAIN FUSE BLOCK
X-01
RELAY &
MAIN FUSE BLOCK
X-03
(BLUE)
(F) - (E)
X-23
(ORANGE)
(F) - (E)
X-23
(F) - (E)
(BLUE)
X-24
AT
S-09
D SENSOR
LH
(BLUE)
S-10
D SENSOR
CENTER


(BLUE)
S SENSOR
S-06
(BLUE)
JOINT
CONNECTOR
G-10
(ORANGE)
S SENSOR
S-06
(GRAY)
AIR BAG
UNIT
S-02
(BLACK)
AIR BAG
UNIT
S-02
L
⑤
④
S-03
JOINT
CONNECTOR
(BLUE)
S-08
AIR BAG
MODULE
S-01
BACKUP
BATTERY
X-05
IGNITION
SWITCH
X-04
FUSE BLOCK
S-05
COMBINATION
SWITCH
S-07
COMBINATION
SWITCH
(BLUE)
X-18
(F) - (I)

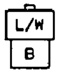

(F) - (I)
X-18
(BLUE)
JOINT
CONNECTOR
S-04

■ CPU: SOUND WARNING UNIT

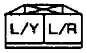
T


BATTERY
B (E)
MAIN FUSE
80A
40A
X-02
X-01
X-03
W (F)
W/R (F)
IGNITION SWITCH
X-05
B2
B1
ST
OFF
ON
ACC
IG2
IG1
X-05
L
(F)
X-04
L/R (F)
ROOM
10A ⑭
T-02
IGNITION KEY REMINDER SWITCH
T-02
DOOR SWITCH (SECTION I)
㊼
METER
10A ②
INSTRUMENT CLUSTERS (SECTION C)
㉞
LG (F)
L/W
(F)
R/W
(F)
L/Y
(F)
B/Y
(F)
X-14
L/W
(R)
T-03
BUZZER
T-01
BUCKLE SWITCH
T-01
CPU: SOUND WARNING UNIT
T-03
B
(R)
FEDERAL & CALIFORNIA
B
(F)
CANADA
G
⑦
①
④

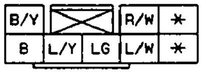
T-01 BUCKLE SWITCH (R)



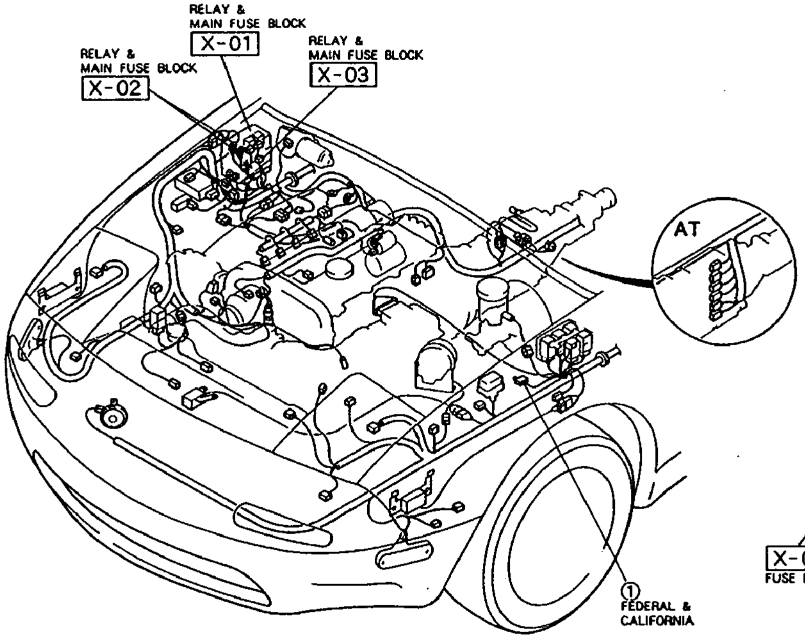
T-02 IGNITION KEY REMINDER SWITCH (F)

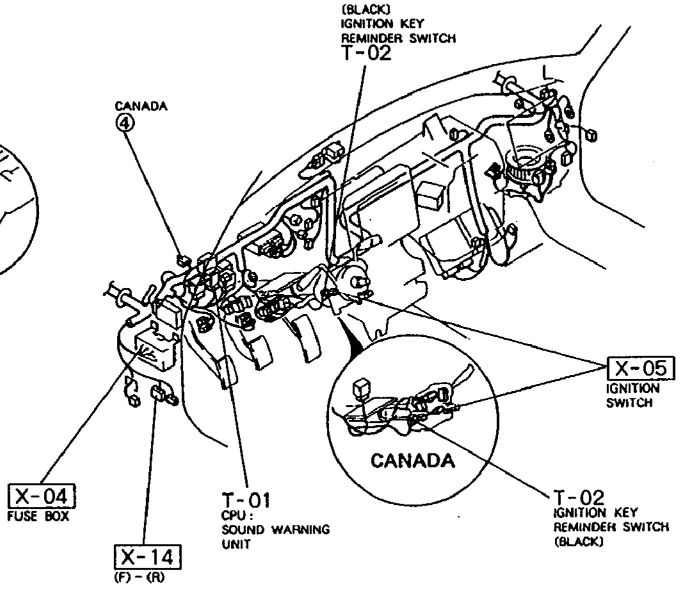


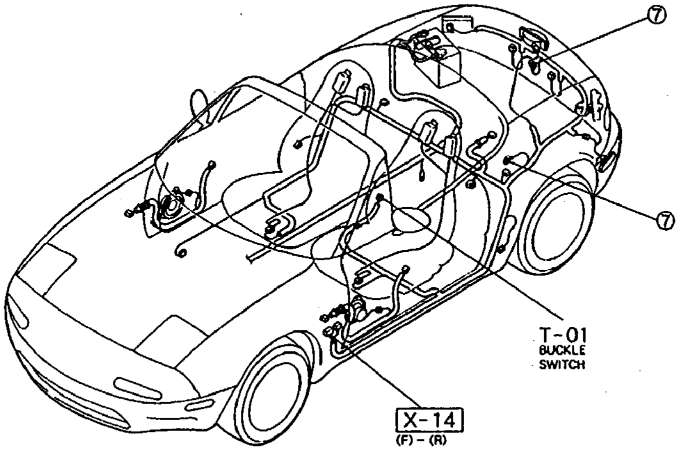
T-03 CPU: SUND WARNING UNIT (F)


B/Y
R/W
*
B
L/Y
LG
L/W
*

T

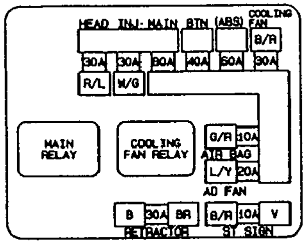

RELAY &
MAIN FUSE BLOCK
X-01
RELAY &
MAIN FUSE BLOCK
X-02
RELAY &
MAIN FUSE BLOCK
X-03
AT
①
FEDERAL &
CALIFORNIA


(BLACK)
IGNITION KEY
REMINDER SWITCH
T-02
CANADA
④
X-05
IGNITION
SWITCH
CANADA
X-04
FUSE BOX
X-14
(F) - (R)
T-01
CPU :
SOUND WARNING
UNIT
T-02
IGNITION KEY
REMINDER SWITCH
(BLACK)

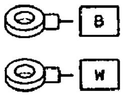

⑦
⑦
T-01
BUCKLE
SWITCH
X-14
(F) - (R)

X ■COMMON CONNECTOR LIST

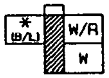
X-01 RELAY & MAIN FUSE BLOCK (E)


HEAD
INJ·
MAIN
BTN
(ABS)
COOLING FAN
B/R
30A
30A
80A
40A
60A
30A
R/L
W/G
MAIN RELAY
COOLING FAN RELAY
G/R
10A
AIR BAG
L/Y
20A
AD FAN
B
30A
BR
RETRACTOR
B/R
10A
V
ST SIGN

X-02 RELAY & MAIN FUSE BLOCK (E)

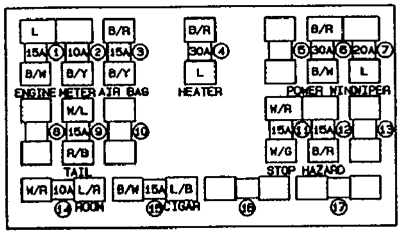


X-03 RELAY & MAIN FUSE BLOCK (F)

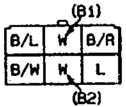


( )...WITH ABS

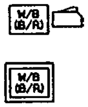
X-04 FUSE BOX (F)


L
B/R
B/R
B/R
15A ①
10A ②
15A ③
30A ④
⑤ 30A
⑥ 20A ⑦
B/W
B/Y
B/Y
L
B/W
L
ENGINE
METER
AIR BAG
HEATER
POWER WIND
WIPER
W/L
W/R
⑧ 15A ⑨
⑩
15A ⑪
15A ⑫
⑬
B/R
W/G
B/R
TAIL
STOP
HAZARD
W/R
10A
L/R
B/W
15A
L/B
⑭ ROOM
⑮ CIGAR
⑯
⑰

X-05 IGNITION SWITCH (F)


(B1)
B/L
W
B/R
B/W
W
L
(B2)

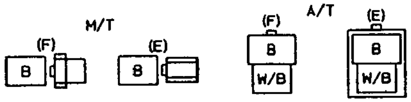
X-06 CONNECTOR BETWEEN FRONT (F) & ENGINE (E)



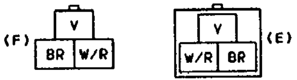
(F) ( )...FEDERAL & CALIFORNIA A/T

(E) (IN THE RELAY & MAIN FUSE BLOCK)

X-07 CONNECTOR BETWEEN FRONT (F) & ENGINE (E)

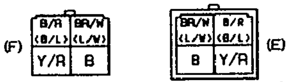

M/T
(F)
B
(E)
B
A/T
(F)
B
W/B
(E)
B
W/B

X-08 CONNECTOR BETWEEN FRONT (F) & ENGINE (E)


(F)
V
BR
W/R
V
W/R
BR
(E)

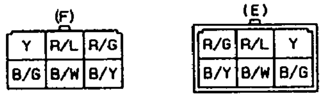
(IN THE RELAY & MAIN FUSE BLOCK)

X-09 CONNECTOR BETWEEN FRONT (F) & ENGINE (E)


(F)
B/R
(B/L)
BR/W
(L/W)
Y/R
B
BR/W
(L/W)
B/R
(B/L)
B
Y/R
(E)

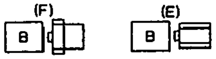
( )...A/T (IN THE RELAY & MAIN FUSE BLOCK)

X-10 CONNECTOR BETWEEN FRONT (F) & ENGINE (E)

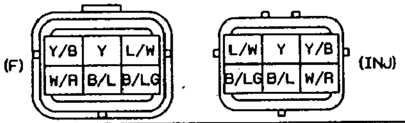

(F)
Y
R/L
R/G
B/G
B/W
B/Y
(E)
R/G
R/L
Y
B/Y
B/W
B/G

(IN THE RELAY & MAIN FUSE BLOCK)

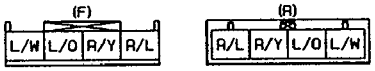
X-11 CONNECTOR BETWEEN FRONT (F) & ENGINE (E)



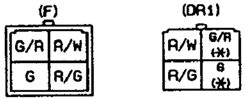
X-12 CONNECTOR BETWEEN FRONT (F) & INJECTION (INJ)


(F)
Y/B
Y
L/W
W/R
B/L
B/LG
L/W
Y
Y/B
B/LG
B/L
W/R
(INJ)

X-13 CONNECTOR BETWEEN FRONT (F) & REAR (R)


(F)
L/W
L/O
R/Y
R/L
(R)
R/L
R/Y
L/O
L/W

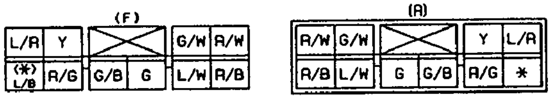
X-15 CONNECTOR BETWEEN FRONT (F) & DOOR NO. 1 (DR1)


(F)
G/R
R/W
G
R/G
(DR1)
R/W
G/R
(*)
R/G
G
(*)

( )...WITHOUT POWER WINDOW

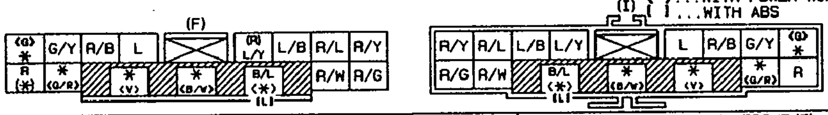
X-14 CONNECTOR BETWEEN FRONT (F) & REAR (R)

( )...A/T

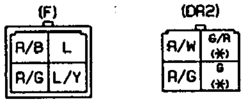

(F)
L/R
Y
G/W
R/W
(*)
L/B
R/G
G/B
G
L/W
R/B
(R)
R/W
G/W
Y
L/R
R/B
L/W
G
G/B
R/G
*

X-16 CONNECTOR BETWEEN FRONT (F) & INSTRUMENT PANEL (I)

( )...CANADA
( )...A/T
{ }...WITH POWER WINDOW
[ ]...WITH ABS


(F)
(G)
*
G/Y
R/B
L
(R)
L/Y
L/B
R/L
R/Y
R
(*)
*
(G/R)
*
(V)
*
(B/W)
B/L
(*)
(L)
R/W
R/G
(I)
R/Y
R/L
L/B
L/Y
L
R/B
G/Y
(G)
*
R/G
R/W
B/L
(*)
(L)
*
(B/W)
*
(V)
*
(G/R)
R

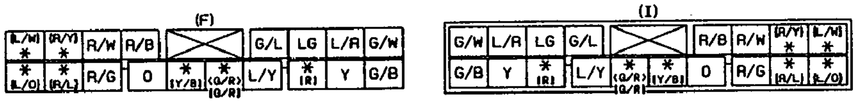
X-20 CONNECTOR BETWEEN FRONT (F) & DOOR NO. 2 (DR2)


(F)
R/B
L
R/G
L/Y
(DR2)
R/W
G/R
(*)
R/G
G
(*)

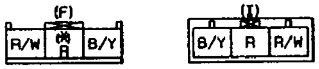
( )...WITHOUT POWER WINDOW

X-17 CONNECTOR BETWEEN FRONT (F) & INSTRUMENT PANEL (I)

( )...A/T
{ }...WITH CRUISE CONTROL
[ ]...WITH HEADREST SPEAKER


(F)
[L/W]
*
{R/Y}
*
R/W
R/B
G/L
LG
L/R
G/W
[L/O]
*
{R/L}
*
R/G
O
*
{Y/B}
*
(G/R)
{O/R}
L/Y
*
(R)
Y
G/B
(I)
G/W
L/R
LG
G/L
R/B
R/W
{R/Y}
*
[L/W]
*
G/B
Y
*
(R)
L/Y
*
(G/R)
{O/R}
*
{Y/B}
O
R/G
*
{R/L}
*
[L/O]

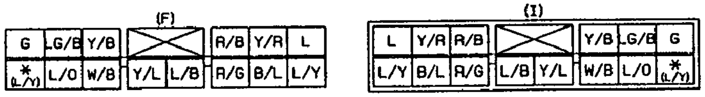
X-18 CONNECTOR BETWEEN FRONT (F) & INSTRUMENT PANEL (I)


(F)
R/W
(R)
B/Y
(I)
B/Y
R
R/W

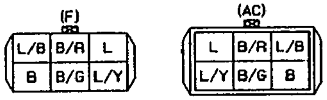
( )...CANADA

X-19 CONNECTOR BETWEEN FRONT (F) & INSTRUMENT PANEL (I)

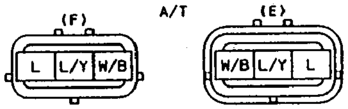
( )...WITH ABS


(F)
G
LG/B
Y/B
R/B
Y/R
L
*
(L/Y)
L/O
W/B
Y/L
L/B
R/G
B/L
L/Y
(I)
L
Y/R
R/B
Y/B
LG/B
G
L/Y
B/L
R/G
L/B
Y/L
W/B
L/O
*
(L/Y)

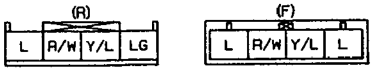
X-21 CONNECTOR BETWEEN FRONT (F) & A/C (A/C)


(F)
L/B
B/R
L
B
B/G
L/Y
(AC)
L
B/R
L/B
L/Y
B/G
B

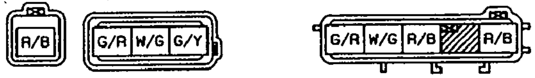
X-22 CONNECTOR BETWEEN FRONT (F) & ENGINE (E)


(F)
A/T
L
L/Y
W/B
(E)
W/B
L/Y
L

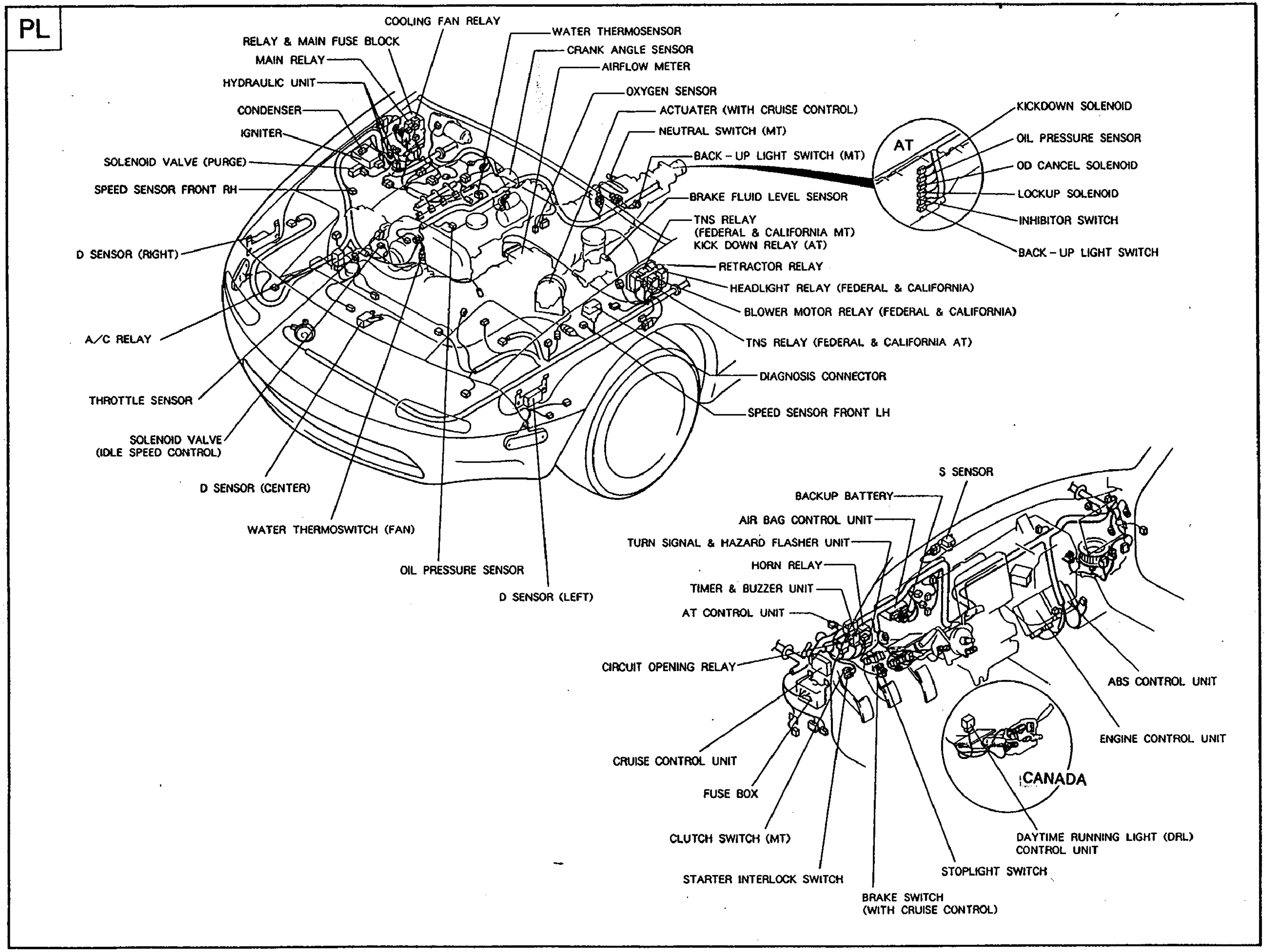
X-13 CONNECTOR BETWEEN REAR (R) & FRONT (F)


(R)
L
R/W
Y/L
LG
(F)
L
R/W
Y/L
L

X-24 CONNECTOR BETWEEN FRONT (F) & ENGINE (E)


(F)
R/B
G/R
W/G
G/Y
(E)
G/R
W/G
R/B
R/B

(ORANGE)


PL
COOLING FAN RELAY
RELAY & MAIN FUSE BLOCK
MAIN RELAY
HYDRAULIC UNIT
CONDENSER
IGNITER
SOLENOID VALVE (PURGE)
SPEED SENSOR FRONT RH
D SENSOR (RIGHT)
A/C RELAY
THROTTLE SENSOR
SOLENOID VALVE
(IDLE SPEED CONTROL)
D SENSOR (CENTER)
WATER THERMOSWITCH (FAN)
OIL PRESSURE SENSOR
D SENSOR (LEFT)
WATER THERMOSENSOR
CRANK ANGLE SENSOR
AIRFLOW METER
OXYGEN SENSOR
ACTUATER (WITH CRUISE CONTROL)
NEUTRAL SWITCH (MT)
BACK-UP LIGHT SWITCH (MT)
BRAKE FLUID LEVEL SENSOR
TNS RELAY
(FEDERAL & CALIFORNIA MT)
KICK DOWN RELAY (AT)
RETRACTOR RELAY
HEADLIGHT RELAY (FEDERAL & CALIFORNIA)
BLOWER MOTOR RELAY (FEDERAL & CALIFORNIA)
TNS RELAY (FEDERAL & CALIFORNIA AT)
DIAGNOSIS CONNECTOR
SPEED SENSOR FRONT LH
AT
KICKDOWN SOLENOID
OIL PRESSURE SENSOR
OD CANCEL SOLENOID
LOCKUP SOLENOID
INHIBITOR SWITCH
BACK-UP LIGHT SWITCH
S SENSOR
BACKUP BATTERY
AIR BAG CONTROL UNIT
TURN SIGNAL & HAZARD FLASHER UNIT
HORN RELAY
TIMER & BUZZER UNIT
AT CONTROL UNIT
CIRCUIT OPENING RELAY
CRUISE CONTROL UNIT
FUSE BOX
CLUTCH SWITCH (MT)
STARTER INTERLOCK SWITCH
BRAKE SWITCH
(WITH CRUISE CONTROL)
STOPLIGHT SWITCH
DAYTIME RUNNING LIGHT (DRL)
CONTROL UNIT
CANADA
ENGINE CONTROL UNIT
ABS CONTROL UNIT

PARTS INDEX

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CRUISE CONTROL SWITCH	Q
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I	
IGNITION KEY REMINDER SWITCH	T
IGNITION SWITCH	W~T
IGNITER	B-1a
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INJECTOR	B-1a
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JOIT CONNECTOR	S
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OD OFF SWITCH	H-1
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S SENSOR	S
SHIFTLOCK ACTUATOR	H-2

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- (ISC) ... B-1a
- (PURGE) ... B-1a

SPEED SENSOR ... O

STARTER ... A

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Ⓥ

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Ⓦ

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WINDSHIELD WASHER MOTOR ... D-1,2

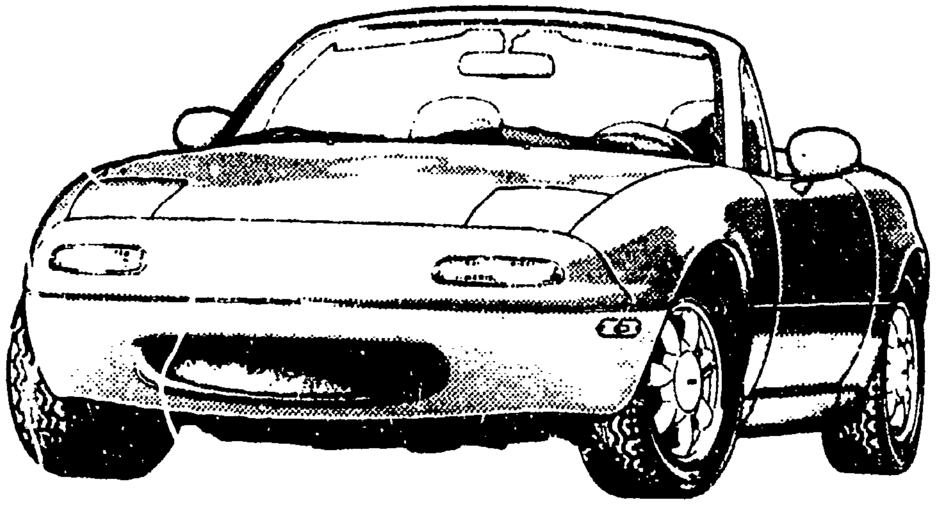
WINDSHIELD WIPER MOTOR ... D-1,2

4-3 SWITCH ... H-1

PARTS NAME SECTION

Parts Catalog

Mazda MX-5 MIATA
U.S.A.
('90)



NA35**-100001-200000

Feb.'92 (FINAL)

Catalog No. AU-NA/J1-07

mazda

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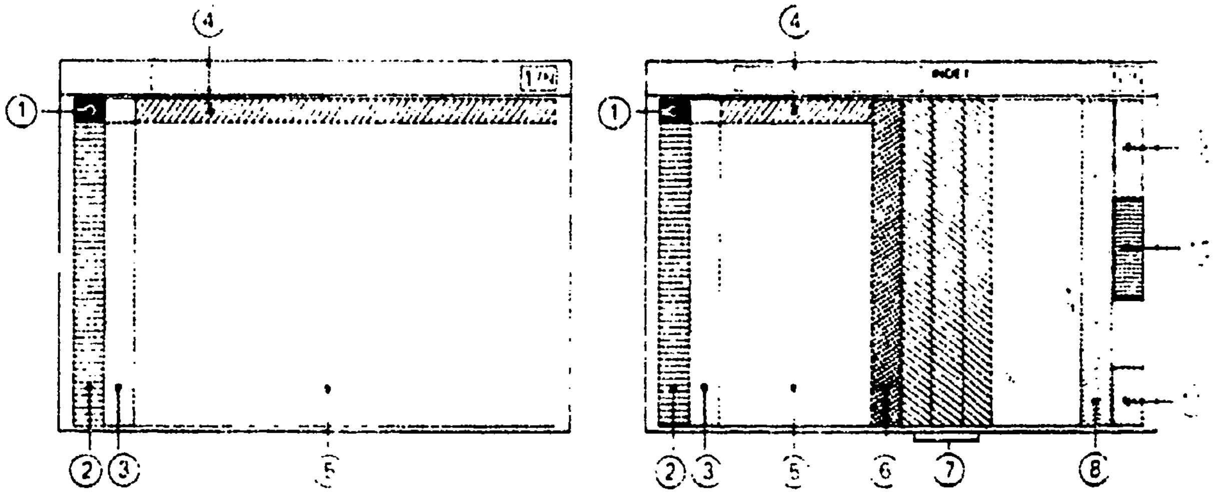
LAYOUT OF CONTENTS

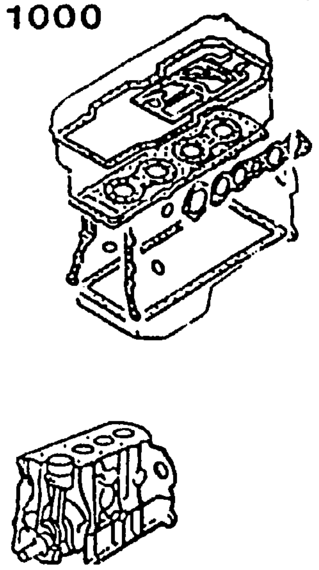
- The following is a typical example of the layout of contents on Mazda microfiche parts catalog



① · Layout of contents
② · Pictorial Index
③ · Master Section No. Index
④ · Section No. Index for the Column
⑤ · Illustration & Text
⑥ · Part No. Index
⑦ · Alphabetical Index
⑧ · Model Identification
⑨ · Vehicle Identification System

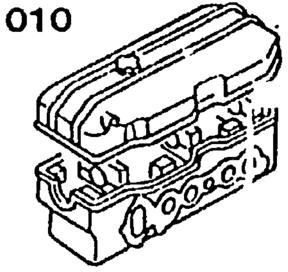
PICTORIAL INDEX

1000



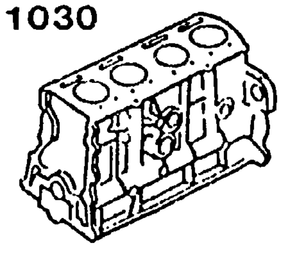
SHORT ENGINE & GASKET SETS

1 1010



CYLINDER HEAD & COVER

2 1030



CYLINDER BLOCK

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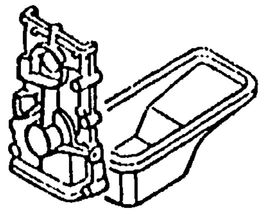

OIL PAN & TIMING COVER

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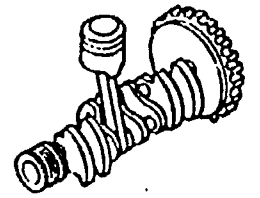

PISTON, CRANKSHAFT & FLYWHEEL

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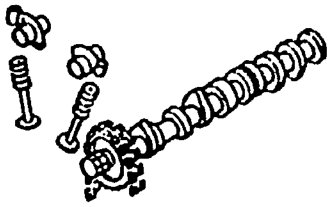
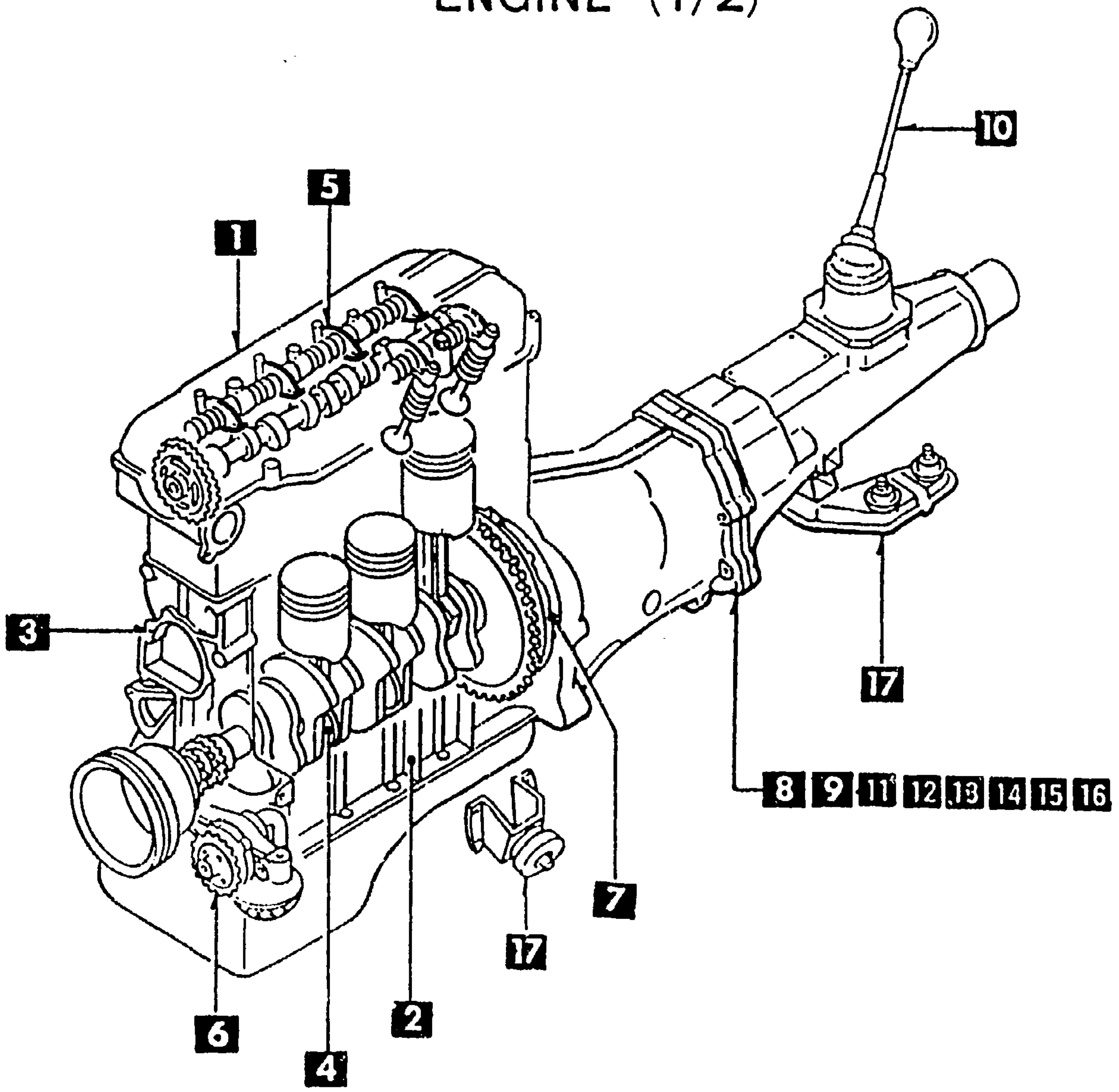


VALVE SYSTEM

ENGINE (1/2)



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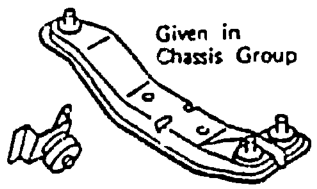
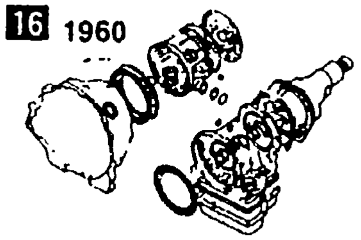


ENGINE & T/MISSION MOUNTINGS

16 1960



GASKET & SEAL KIT (AUTOMATIC)

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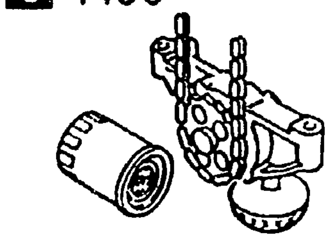

OIL PUMP & FILTER

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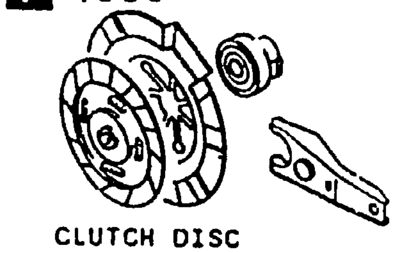

CLUTCH DISC & COVER (MANUAL)

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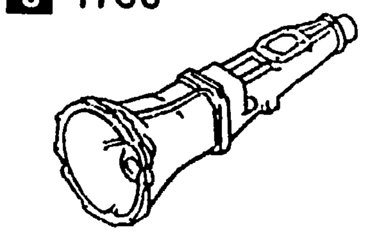
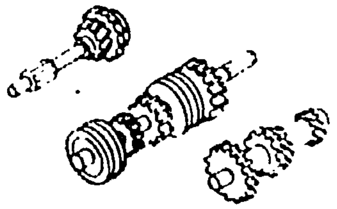


TRANSMISSION CASE (MANUAL)

9 1710



TRANSMISSION GEARS (MANUAL)

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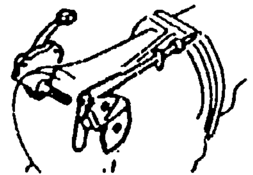

MANUAL LINKAGE SYSTEM (AUTOMATIC)

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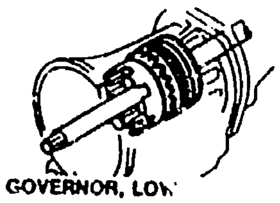
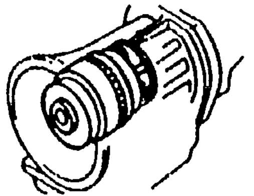


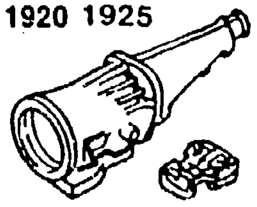
GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)

13 1930



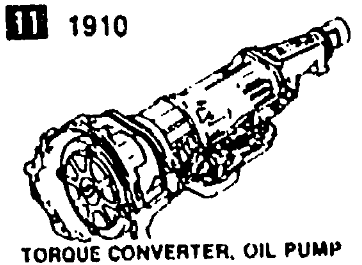
CLUTCH & PLANETARY GEARS (AUTOMATIC)

12 1920 1925



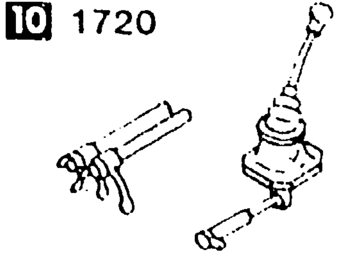
TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)

11 1910



TORQUE CONVERTER, OIL PUMP & PIPINGS (AUTOMATIC)

10 1720



CHANGE CONTROL SYSTEM (MANUAL)

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

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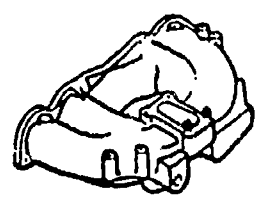
1 1300



INLET MANIFOLD

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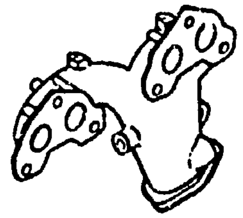

EXHAUST MANIFOLD

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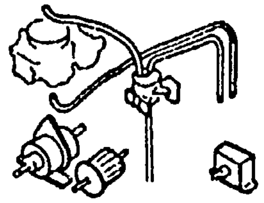

FUEL SYSTEM

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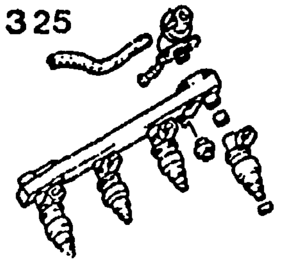

FUEL DISTRIBUTOR

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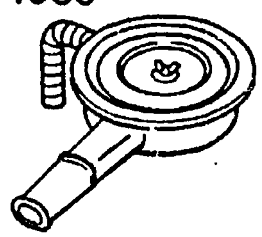
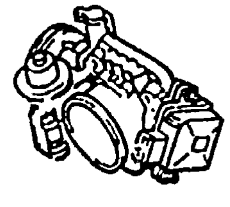


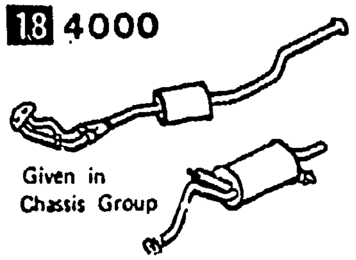
AIR CLEANER

6 1364



THROTTLE BODY

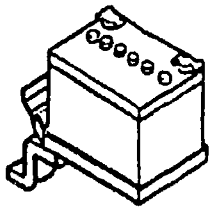
18 4000



Given in
Chassis Group

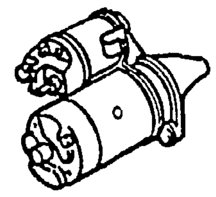
EX.SYSTEM

17 1850



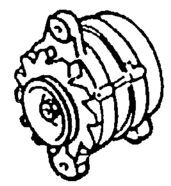
BATTERY

16 1840



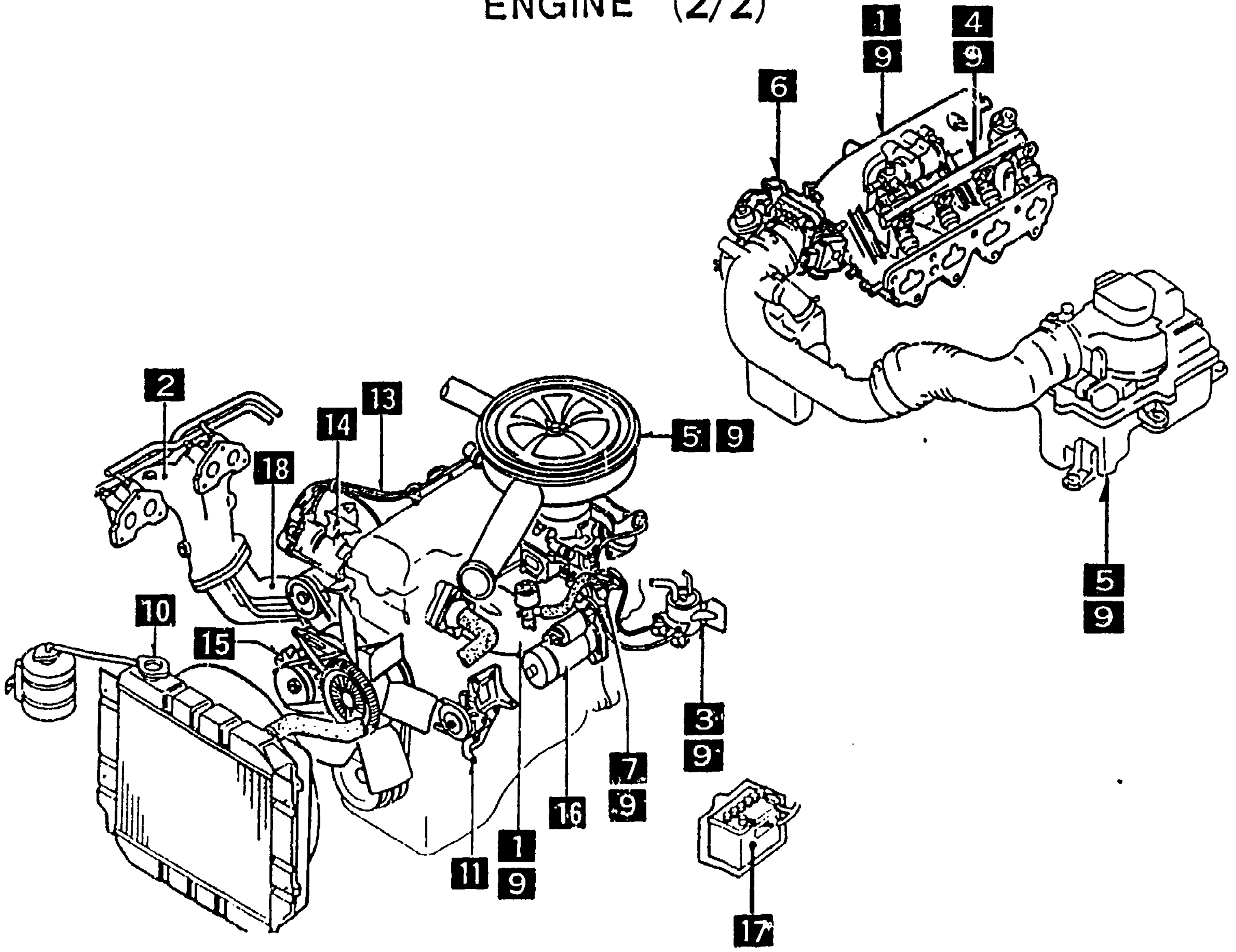
STARTER

15 1830



ALTERNATOR

ENGINE (2/2)



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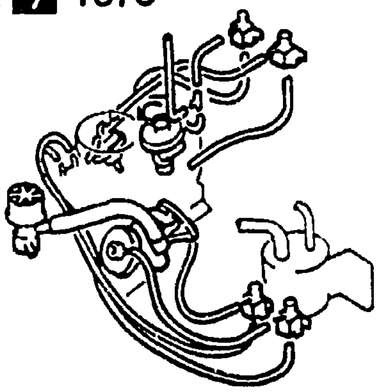
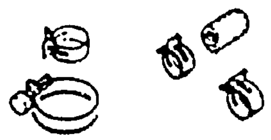


EMISSION CONTROL SYSTEM
(INLET SIDE)

8

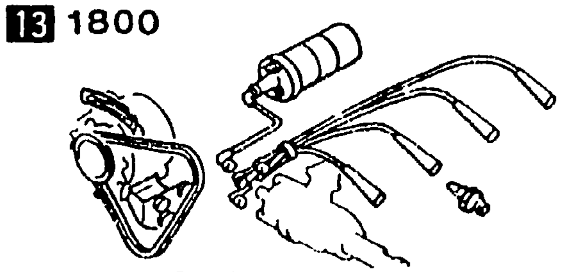
9 1399



CAP & HOSE CLIP
'INLET & EXHAUST SIDE'

14

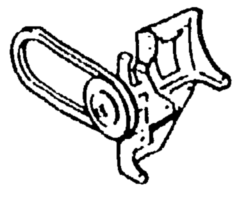
13 1800



ENGINE ELECTRICAL SYSTEM

12

11 1580



BRACKET,PULLEY & BELT

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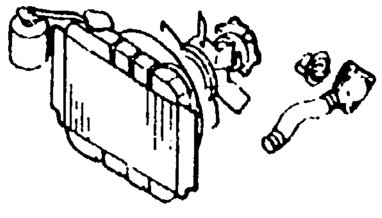

COOLING SYSTEM

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

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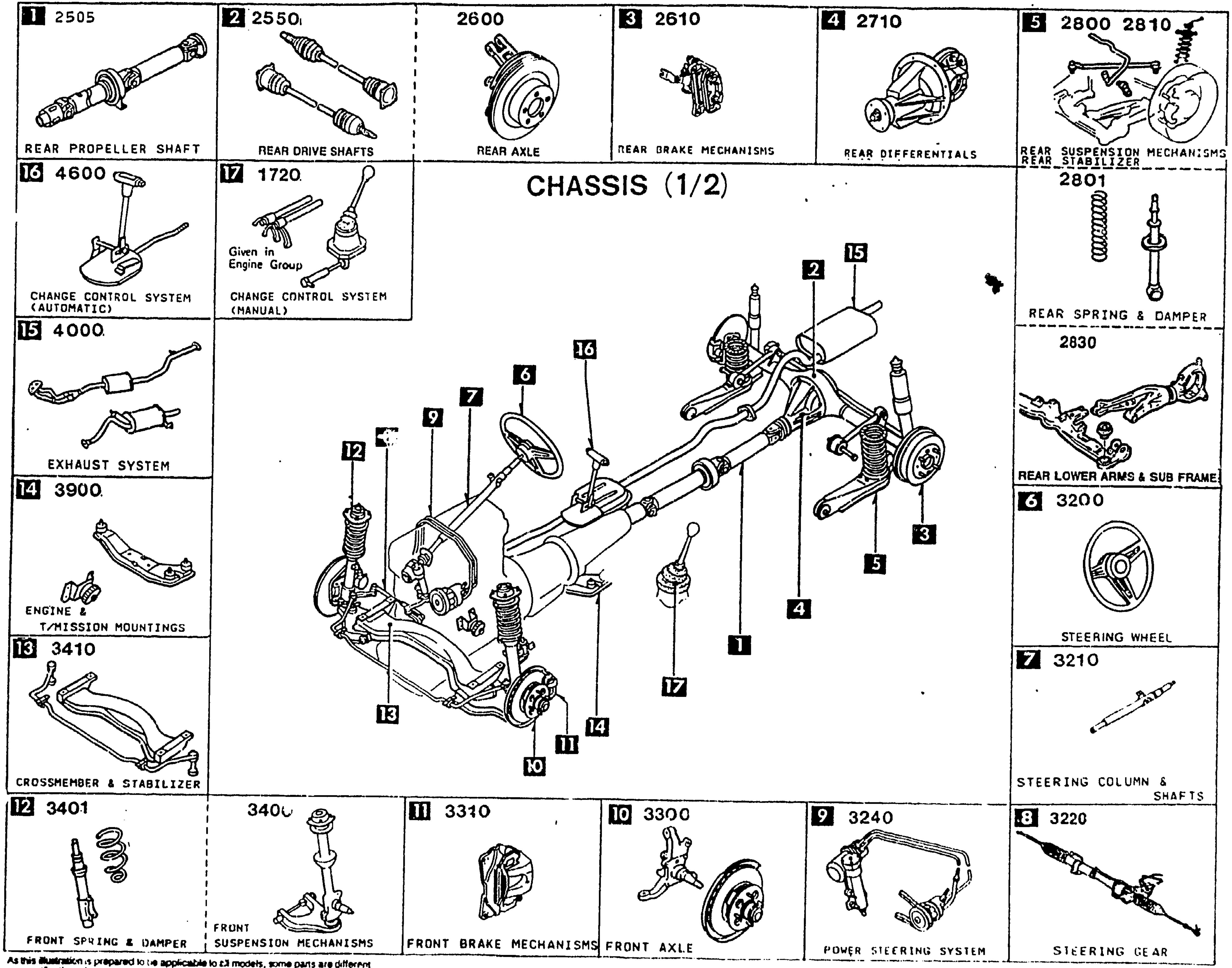
CHASSIS (1/2)
1 2505 REAR PROPELLER SHAFT
2 2550 REAR DRIVE SHAFTS
2600 REAR AXLE
3 2610 REAR BRAKE MECHANISMS
4 2710 REAR DIFFERENTIALS
5 2800 2810 REAR SUSPENSION MECHANISMS REAR STABILIZER
2801 REAR SPRING & DAMPER
2830 REAR LOWER ARMS & SUB FRAME
6 3200 STEERING WHEEL
7 3210 STEERING COLUMN & SHAFTS
8 3220 STEERING GEAR
9 3240 POWER STEERING SYSTEM
10 3300 FRONT AXLE
11 3310 FRONT BRAKE MECHANISMS
3400 FRONT SUSPENSION MECHANISMS
12 3401 FRONT SPRING & DAMPER
13 3410 CROSSMEMBER & STABILIZER
14 3900 ENGINE & T/MISSION MOUNTINGS
15 4000 EXHAUST SYSTEM
16 4600 CHANGE CONTROL SYSTEM (AUTOMATIC)
17 1720 Given in Engine Group CHANGE CONTROL SYSTEM (MANUAL)
15
2
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1
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As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

PICTORIAL INDEX

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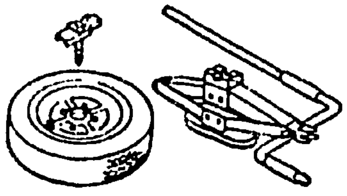

TIRES & JACK

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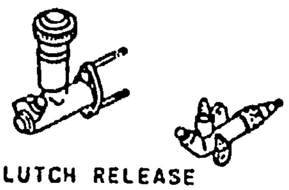
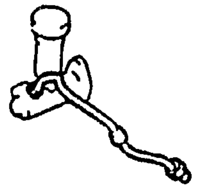


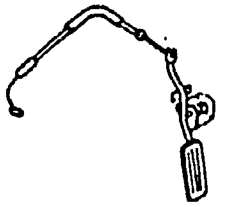
CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)

4145



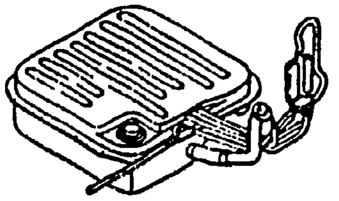
CLUTCH PIPINGS (MANUAL TRANSMISSION)

3 4160



ACCELERATOR CONTROL SYSTEM

4 4200



FUEL TANK

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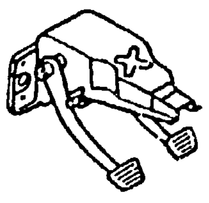
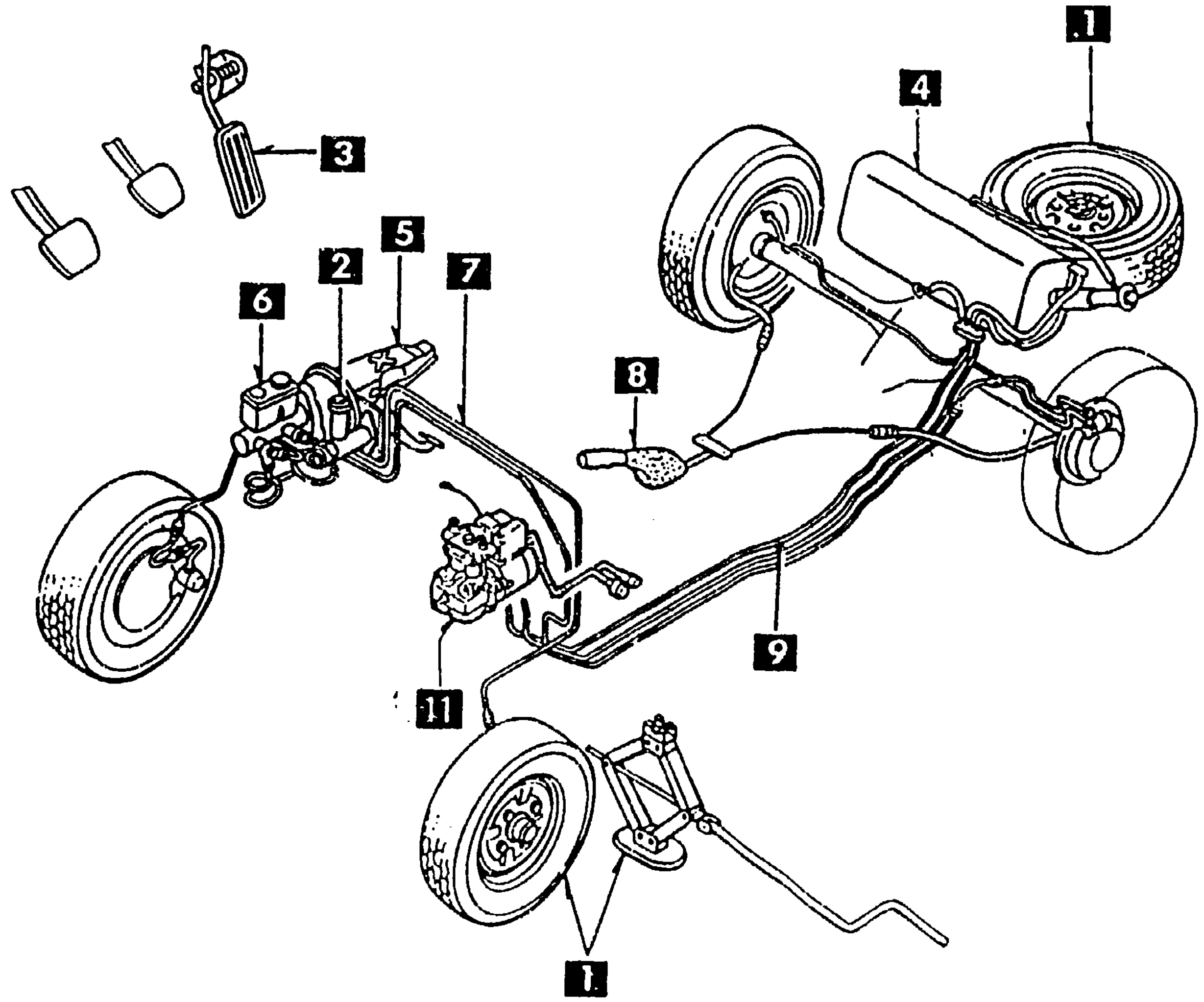


CLUTCH & BRAKE PEDALS

CHASSIS (2/2)



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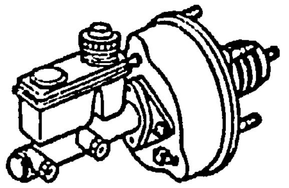

BRAKE MASTER CYLINDER & POWER BRAKE

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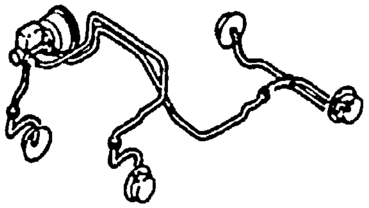

BRAKE PIPINGS

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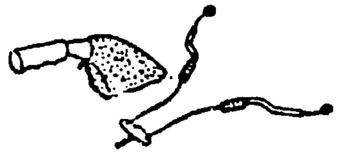

PARKING BRAKE SYSTEM

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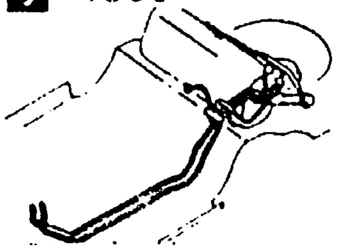

FUEL PIPINGS

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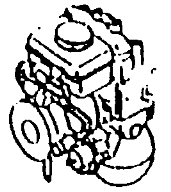

ANTILOCK BRAKE SYSTEM

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

PICTORIAL INDEX

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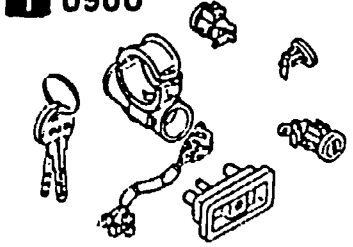

KEY SETS

2

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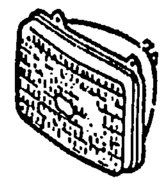

HEAD LAMPS

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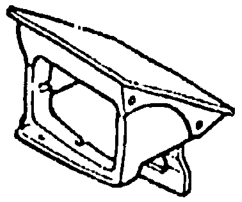

HEAD LAMP RETRACTORS

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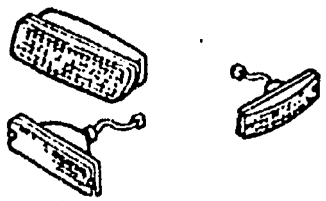
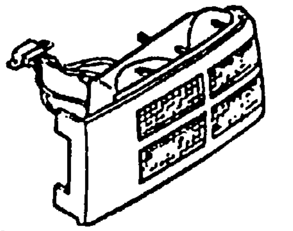


FRONT COMBINATION LAMPS

6 5110



REAR COMBINATION LAMPS

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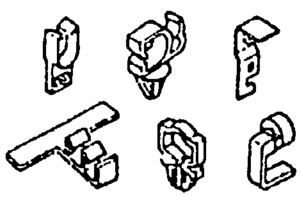

WIRING HARNESS CLAMPS

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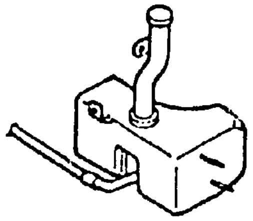

WINDSHIELD WASHER

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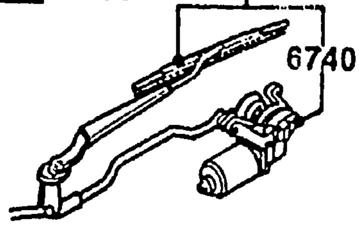

WINDSHIELD WIPERS

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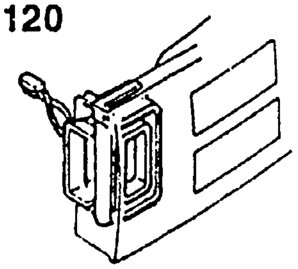

LICENSE LAMPS

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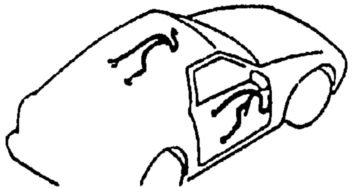
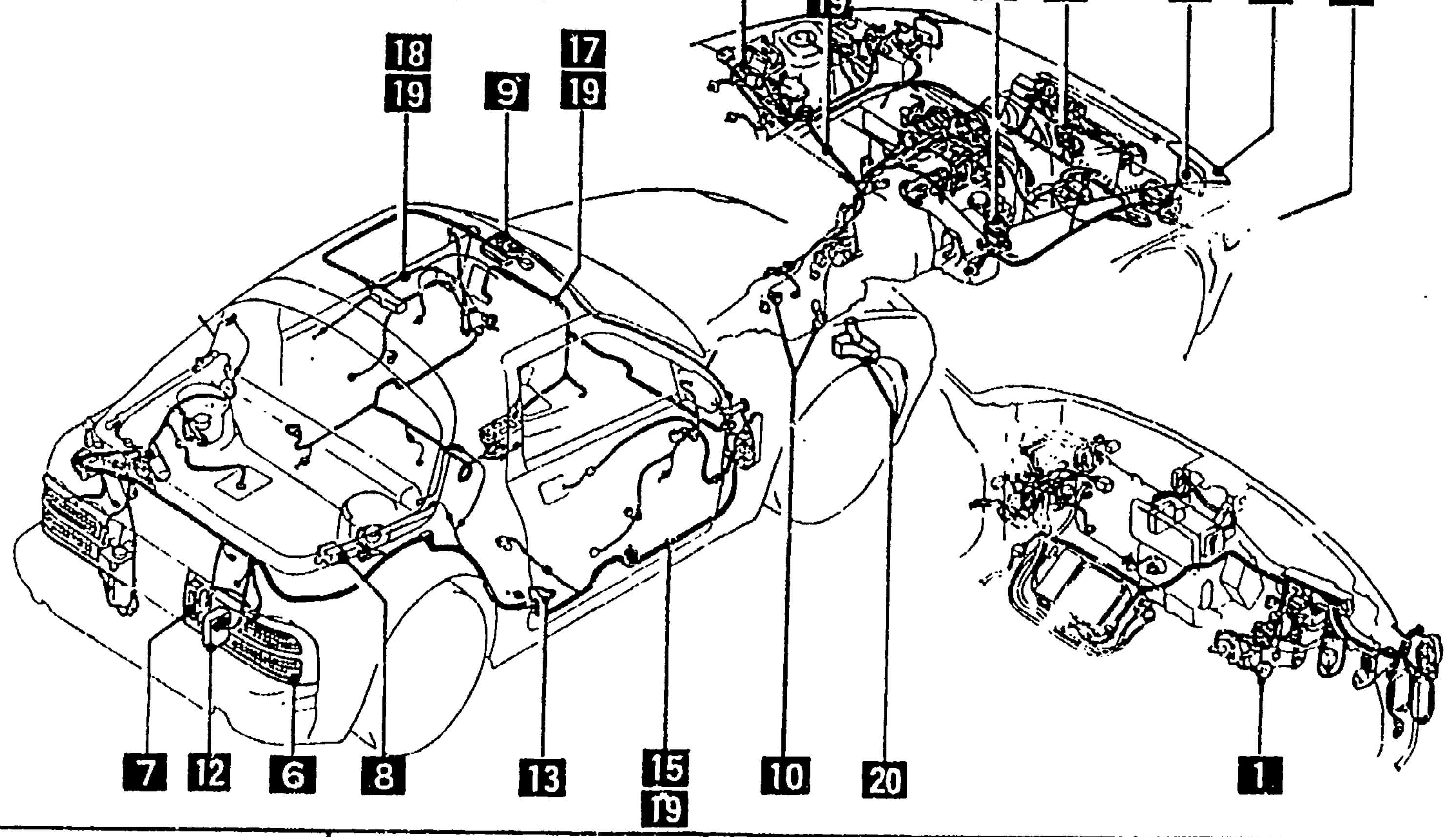


WIRING HARNESSES (DOOR, FLOOR/CEILING)

BODY (1/4)



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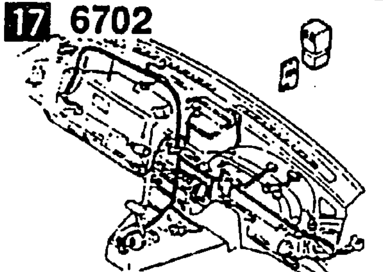
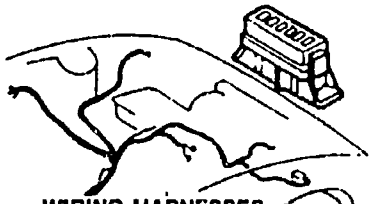


WIRING HARNESSES (DASHBOARD)

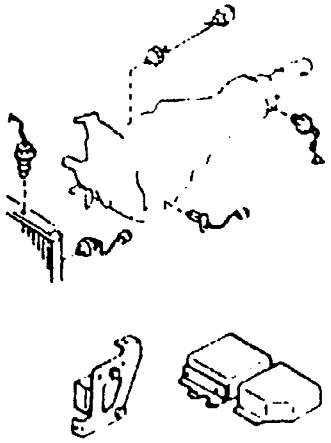
9

16 6701



WIRING HARNESSES (ENGINE & T/MISSION)

10 6600



SWITCHES & RELAYS (ENGINE)

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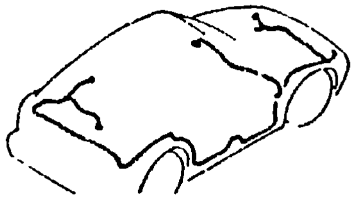
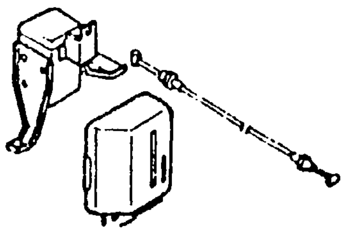


WIRING HARNESSES (FRONT & REAR)

14 6640



AUTO CRUISE CONTROL SYSTEM

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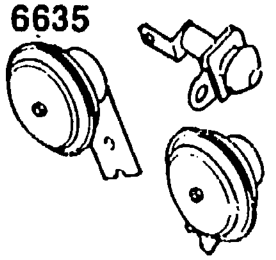
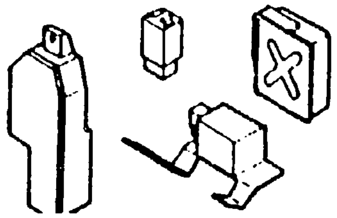


DOOR SWITCH & HORNS

12 6630



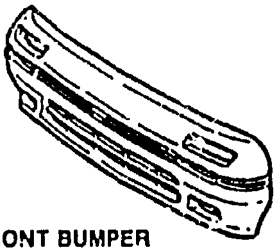
RELAYS & UNIT (BODY)

11

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

PICTORIAL INDEX

1 5000



FRONT BUMPER

2

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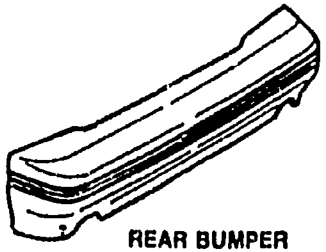

REAR BUMPER

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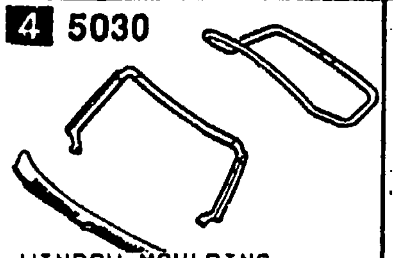
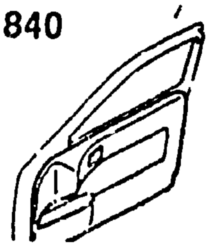


WINDOW MOULDING & COWL GRILLES

5

6

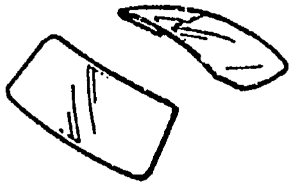
20 5840



FRONT DOOR TRIMS & RELATED PARTS

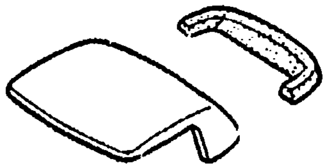
21

22 6300



WINDOW GLASSES

23 6330



SUNROOF

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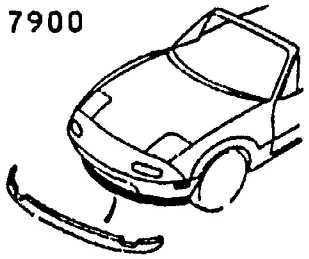

ACCESSORIES

7

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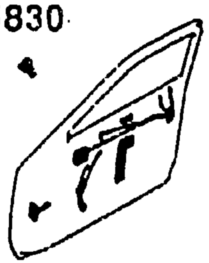
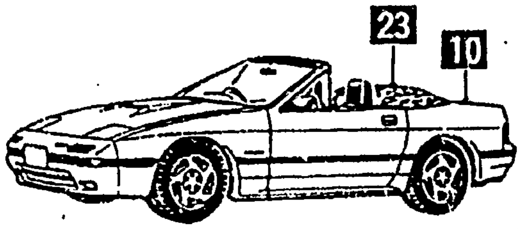
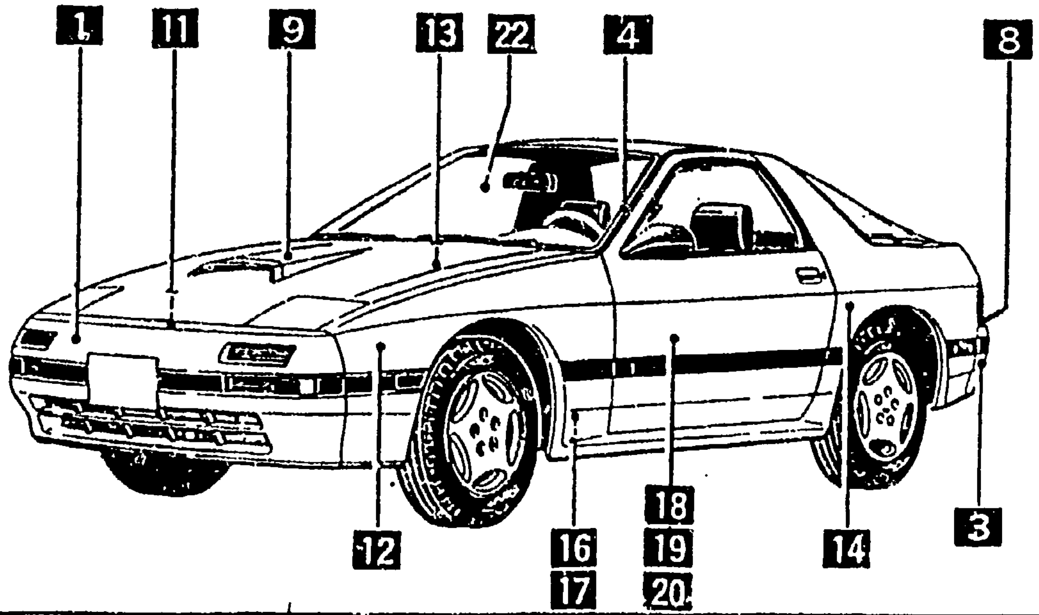


FRONT DOOR MECHANISMS

BODY (2/4)





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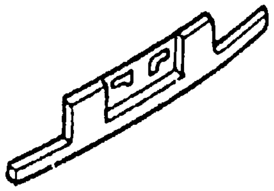

REAR FINISHER

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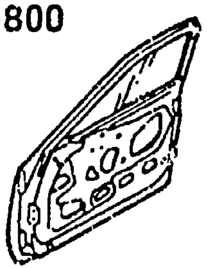
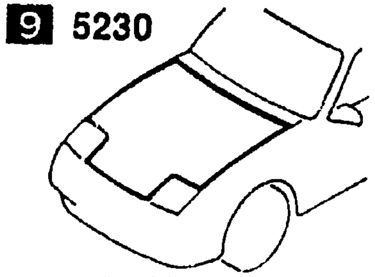


FRONT DOORS

9 5230



BONNET

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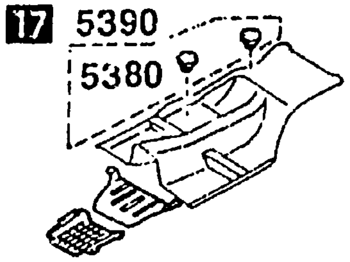
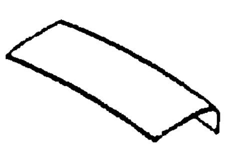
5380



FLOOR ATTACHMENTS

10 5260



TRUNK LID

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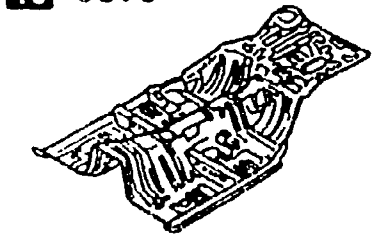

BODY PANELS (FLOOR)

15

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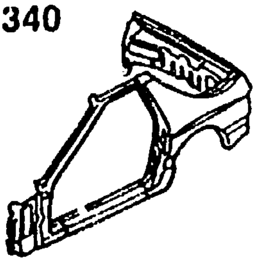

BODY PANELS (SIDE)

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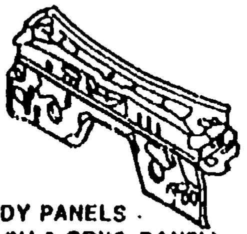
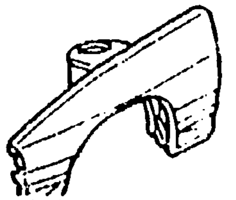


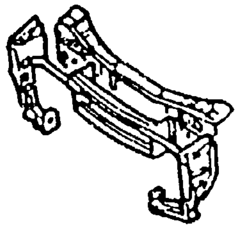
BODY PANELS (DASH & COWL PANEL)

12 5320



BODY PANELS (FENDER & WHEEL APRON)

11 5310



BODY PANELS (FRONT)

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

PICTORIAL INDEX

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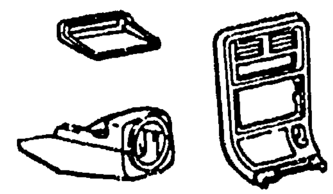
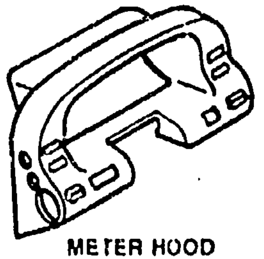


DASHBOARD EQUIPMENTS

2 5520



METER HOOD

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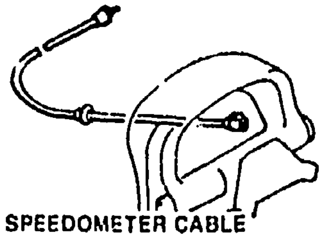

SPEEDOMETER CABLE

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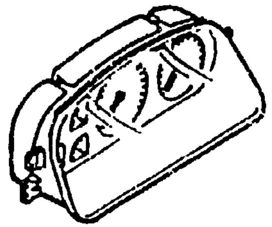

METER COMPONENTS

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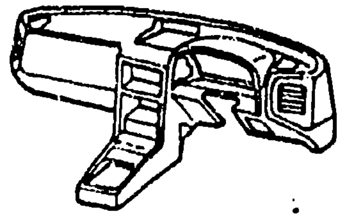

DASHBOARD & RELATED PARTS

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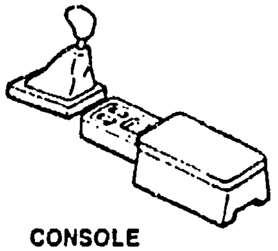
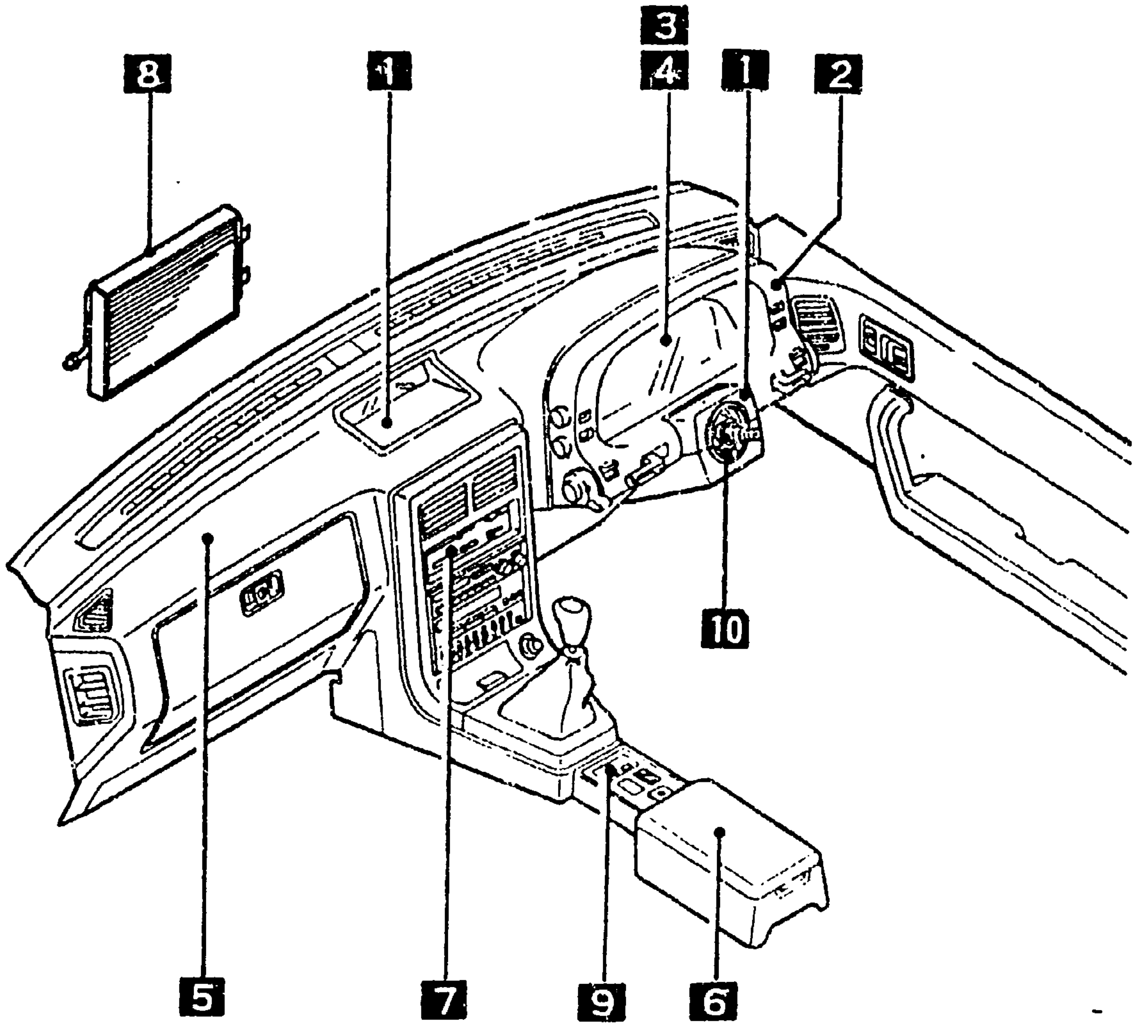


CONSOLE

BODY (3/4)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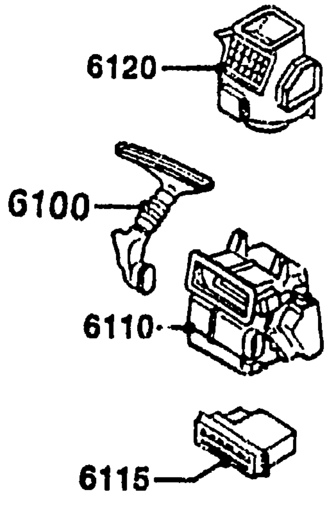
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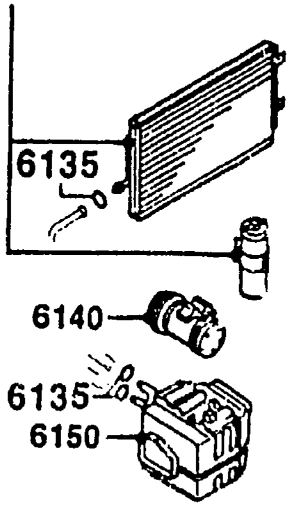
HEATER

8 6130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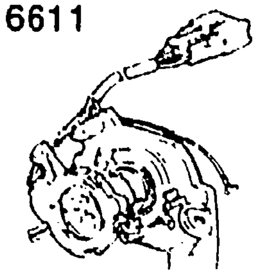
6140
6135
6150

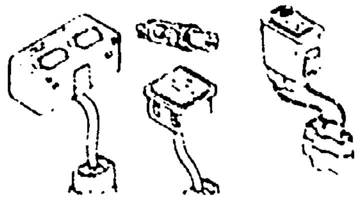
AIR CONDITIONER

10 6611



COMBINATION SWITCH

9 6610



DASHBOARD SWITCHES

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

PICTORIAL INDEX

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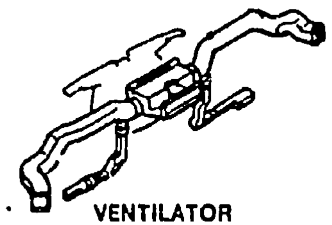
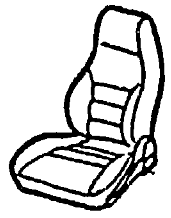


VENTILATOR

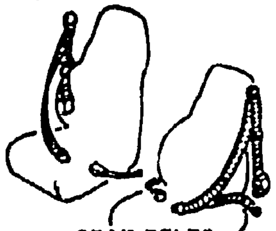
2 5700



SEATS

3

4 5790



SEAT BELTS

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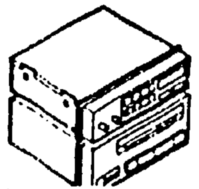

AUDIO SYSTEMS (RADIO & TAPE DECK)

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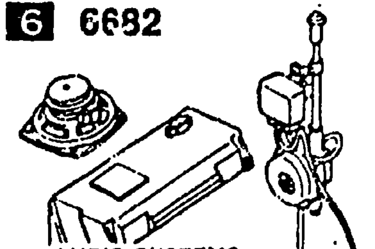
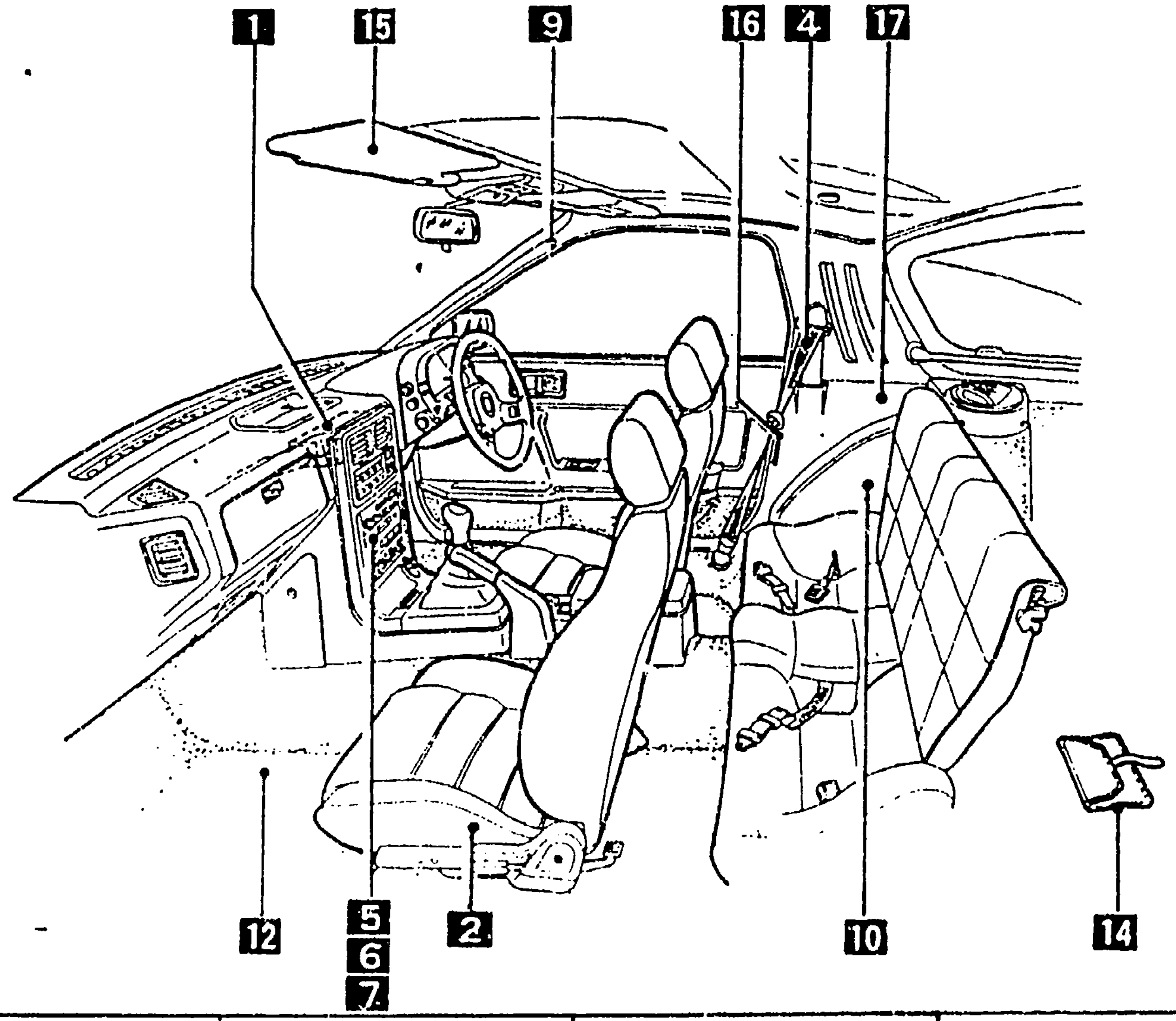


AUDIO SYSTEMS (ANTENNA & SPEAKER)

BODY (4/4)



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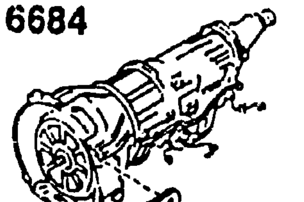


AUDIO SYSTEMS (NOISE SUPPRESSOR & EARTH CORD)

8

9 6820

FRONT HEADER TRIM & PILLAR TRIMS

10 6840

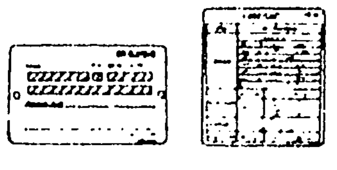
TRIMS & SCUFF PLATES

11

17 7250

REAR WINDOW GLASSES & TRIMS

16 6930



CAUTION PLATES & LABELS

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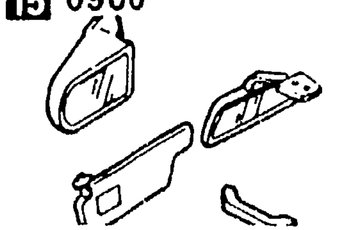
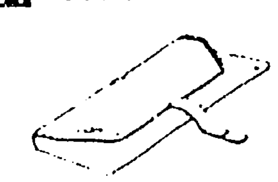


VISORS, ASSIST HANDLES & MIRRORS

14 6870



SERVICE TOOLS

13

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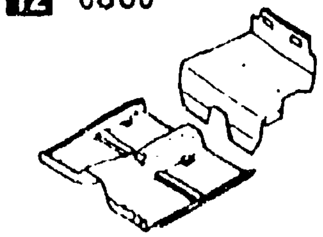

FLOOR MATS & PADS

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SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-I03	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON,CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-I04	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET,PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-I08	1930	CLUTCHES & PLANETARY GEARS (AUTOMATIC)						
1-D09	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMATIC)						
1-I09	1960	GASKET & SEAL KIT (AUTOMATIC)						

DATE. 1992-02

SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM			
1-D11	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM (AT)			
1-F11	2610	REAR BRAKE MECHANISMS						
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-D12	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-I12	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-I13	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-C14	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-D15	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMISSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-I15	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS
2-E05	5000	FRONT BUMPER
2-H05	5010	REAR BUMPER
2-J05	5030	WINDOW MOULDING & COWL GRILLES
2-L05	5100	HEAD LAMPS
2-M05	5103	HEAD LAMP RETRACTORS
2-D06	5105	FRONT COMBINATION LAMPS
2-F06	5110	REAR COMBINATION LAMPS
2-I06	5120	LICENSE LAMPS
2-J06	5180	REAR FINISHER
2-L06	5230	BONNET
2-N06	5260	TRUNK LID
2-D07	5310	BODY PANELS (FRONT)
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)
2-H07	5330	BODY PANELS (DASH & COWL PANEL)
2-I07	5340	BODY PANELS (SIDE)
2-C08	5370	BODY PANELS (FLOOR)
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)
2-G08	5390	FLOOR ATTACHMENTS
2-C09	5500	DASHBOARD EQUIPMENTS
2-E09	5520	METER HOOD
2-F09	5530	SPEEDOMETER CABLE
2-G09	5540	METER COMPONENTS
2-I09	5560	DASHBOARD & RELATED PARTS
2-L09	5570	CONSOLE
2-C10	5580	VENTILATOR
2-D10	5700	SEATS
2-K10	5790	SEAT BELTS
2-L10	5800	FRONT DOORS
2-C11	5830	FRONT DOOR MECHANISMS
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS
2-C12	6100	HEATER
2-D12	6110	HEATER UNIT COMPONENTS
2-E12	6115	HEATER CONTROLS COMPONENTS
2-F12	6120	HEATER BLOWER COMPONENTS
2-G12	6130	AIR CONDITIONER
2-K12	6135	O RING SET,PIPING
2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)
2-N12	6150	COOLING UNIT (AIR CONDITIONER)
2-C13	6300	WINDOW GLASSES
2-D13	6330	SUNROOF
2-M13	6600	SWITCHES & RELAYS (ENGINE)
2-D14	6610	DASHBOARD SWITCHES
2-E14	6611	COMBINATION SWITCH
2-F14	6630	RELAYS & UNIT (BODY)
2-G14	6635	DOOR SWITCH & HORNS
2-H14	6640	AUTO CRUISE CONTROL SYSTEM
2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)
2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)
2-L14	6700	WIRING HARNESSES(FRONT & REAR)
2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)
2-D15	6702	WIRING HARNESSES(DASHBOARD)
2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)
2-F15	6704	WIRING HARNESS CLAMPS
2-I15	6720	WINDSHIELD WASHER
2-K15	6730	WINDSHIELD WIPERS
2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)
2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS
2-C16	6840	TRIMS & SCUFF PLATES
2-E16	6860	FLOOR MATS & PADS
2-G16	6870	SERVICE TOOLS
2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS
2-J16	6930	CAUTION PLATES & LABELS
2-L16	7250	QUARTER WINDOW & TRIMS
3-C03	7900	ACCESSORIES

SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-I03	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON,CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-I04	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET,PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-I08	1930	CLUTCHES & PLANETARY GEARS (AUTOMATIC)						
1-D09	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMATIC)						
1-I09	1960	GASKET & SEAL KIT (AUTOMATIC)						

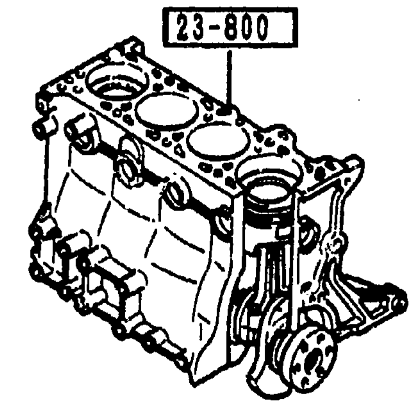
CATLOG-NO= AUNA01-07

DATE. 1992-02

1000 SHORT ENGINE & GASKET SETS

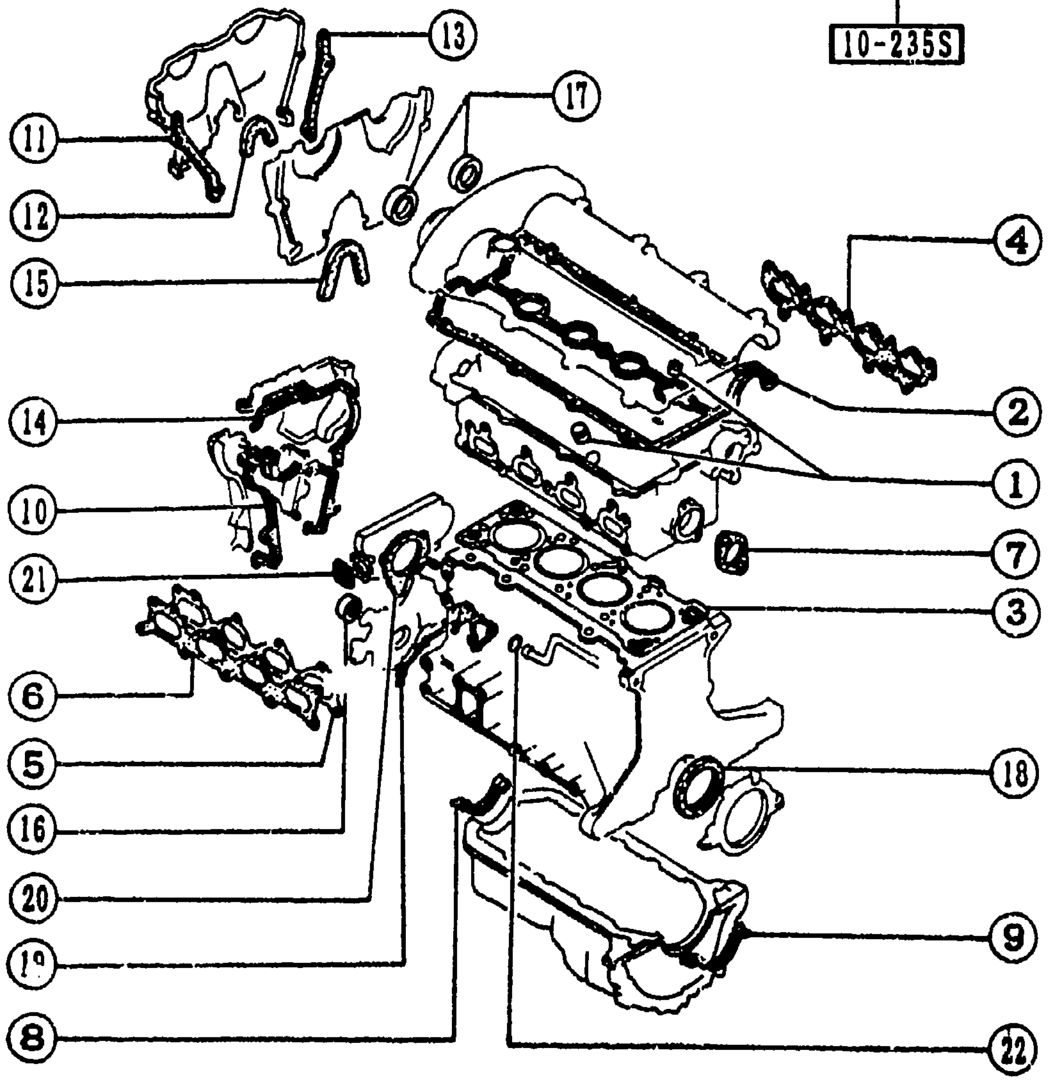
10-271S

1-SEAL,VALVE..........................(16)
2-GASKET,HEAD COVER...................(1)
3-GASKET,CYLINDER HEAD................(1)
4-GASKET,IN.MANIFOLD..................(1)
5-GASKET,EX.MANIFOLD..................(1)
6-GASKET,EX.MANIFOLD..................(1)
7-GASKET,THERMOSTAT COVER.............(2)
8-GASKET,OIL PAN......................(1)
9-GASKET,OIL PAN......................(1)
10-GASKET,T.B.COVER LWR...............(1)
11-GASKET(L)..........................(1)
12-GASKET(INN),TIMING BELT(L).........(1)
13-GASKET(C),TIMING BELT(L)...........(1)
14-GASKET,T.BELT COVER-C. ....(1)
15-RUBBER,SEAL-SEAL PLATE.............(1)
16-SEAL,OIL...........................(1)
17-SEAL,OIL...........................(2)
18-SEAL,OIL-CDRANKSHAFT...............(1)
19-GASKET.,OIL PUMP...................(1)
20-GASKET,WATER PUMP..................(1)
21-GASKET,W.PUMP INLET................(1)
22-RING, O -WATER BY-PASS.............(1)



1-SEAL,VALVE..............(16)
2-GASKET.HEAD COVER.......(1)
3-GASKET,CYLINDER HEAD....(1)
4-GASKET,IN.MANIFOLD......(1)
5-GASKET,EX.MANIFOLD......(1)
6-GASKET,EX.MANIFOLD......(1)
7-GASKET,THERMOSTAT COVER....

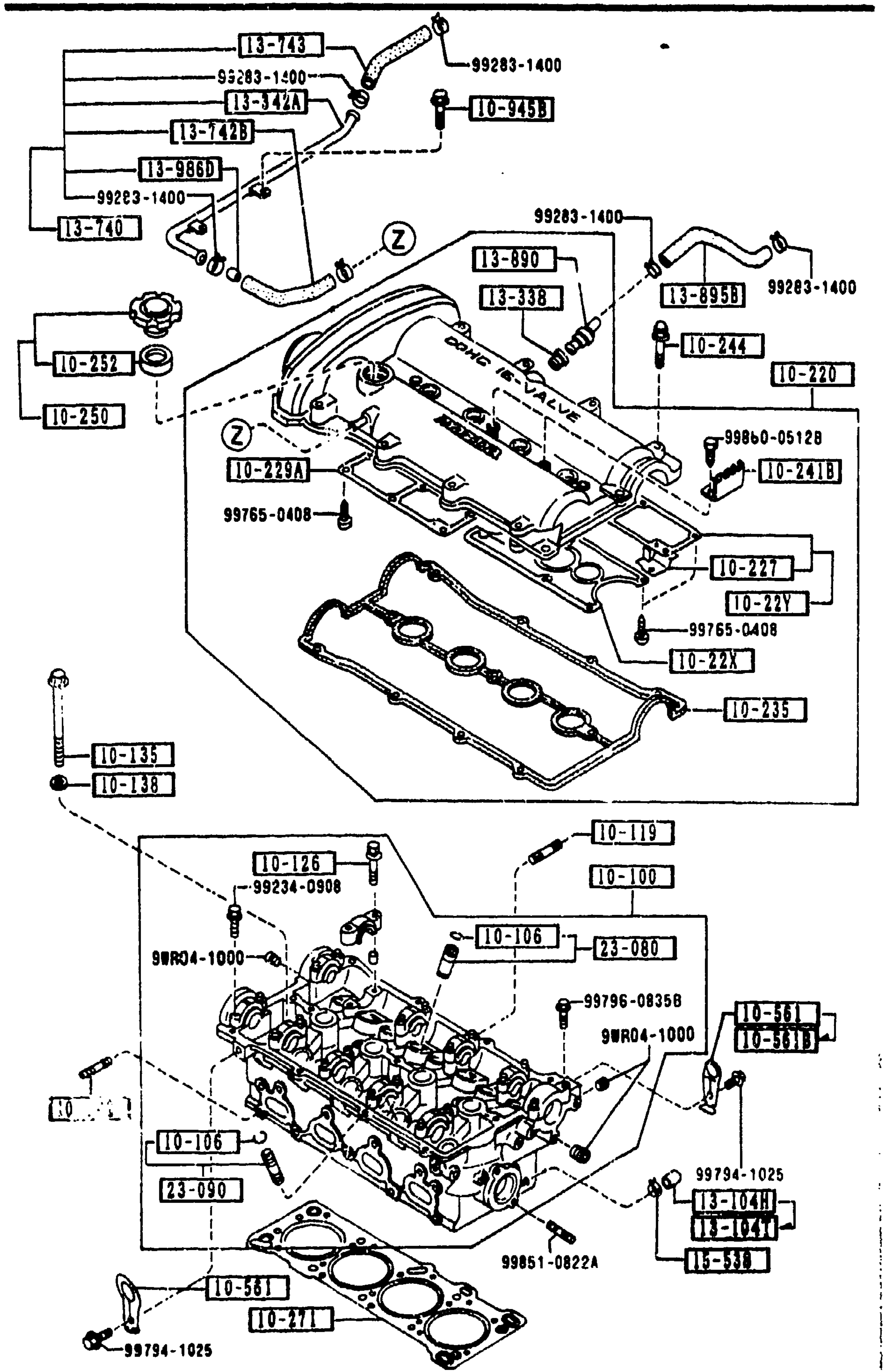
10-235S



PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-235S		GASKET SET,CYL. HEAD			
8AN1-10-235	1				
10-271S		GASKET SET,ENGINE			
8AN1-10-271	1				
23-800		ENGINE,SHORT			
B64E-02-200 A (B64E-02-200A)	1				-9A04
B64J-02-200 A (B64J-02-200A)	1				-0222
B64E-02-200A A (B64E-02-200B)	1				9A04-0222
B64E-02-200B	1	(MT)			0222-
B64J-02-200A	1	(AT)			0222-

9A04 NA35MM-123222
0222 NA35MM-140861

1010 CYLINDER HEAD & COVER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99283-1400
99283-1400
13-342A
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13-742B
13-986D
99283-1400
13-740
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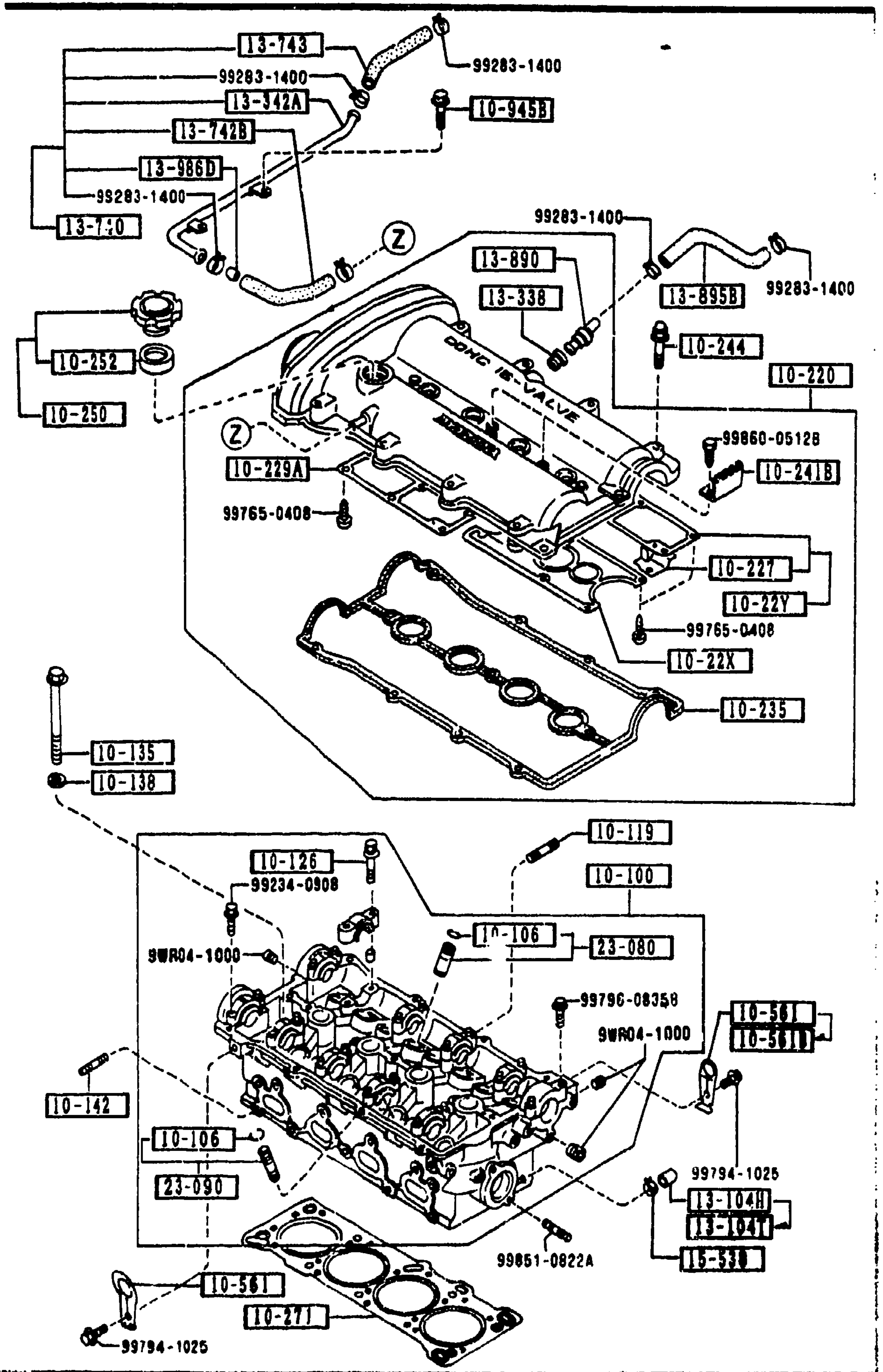
99283-1400
13-890
13-338
13-895B
99283-1400
10-252
10-250
10-244
10-220
Z
99860-05128
10-229A
10-241B
99765-0408
10-227
10-22Y
99765-0408
10-22X
10-235
DOHC 16-VALVE
10-135
10-138
10-119
10-126
10-100
99234-0908
10-106
23-080
9WR04-1000
99796-0835B
9WR04-1000
10-561
10-561B
10-106
23-090
99794-1025
13-104H
13-104T
15-538
99851-0822A
10-561
10-271
99794-1025

1010 -1 CYLINDER HEAD & COVER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-100		HEAD,CYLINDER			
B61P-10-100A AN(B61P-10-100B)	1				-9901
B61P-10-100B	1				9901-
10-106		CLIP,VALVE GUIDE			
B660-10-106	16				
10-119		STUD			
FE4J-13-146	3				
10-126		BOLT,CAMSHAFT CAP			
B660-10-126	20				
10-135		BOLT,CYLINDER HEAD			
B660-10-135A	10				
10-138		WASHER,PLAIN CYL. HEAD			
B630-10-138A	10				
10-142		STUD,EX. MANIFOLD			
B660-10-104A	9				
10-22X		PLATE,OIL BAFFLE-IN.SIDE			
B61P-10-22X	1				
10-22Y		PLATE,OIL BAFFLE-EX.			
B6S7-10-22Y	1				
10-220		COVER,CYLINDER HEAD			
B61P-10-210B A (B61P-10-210C)	1				-9904
B61P-10-210C	1				9904-
10-227		PLATE,BAFFLE			
B61P-10-227	1				
10-229A		PLATE,OIL BAFFLE			
B6S7-10-225	2				
10-235		GASKET,HEAD COVER			

9901 NA35**-119257
9904 NA35**-119498

1010 CYLINDER HEAD & COVER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99283-1400
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13-742B
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99283-1400
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Z
99283-1400
13-890
13-338
13-895B
99283-1400
10-252
10-250
10-244
10-220
Z
10-229A
99860-05128
10-241B
99765-0408
10-227
10-22Y
99765-0408
10-22X
10-235
10-135
10-138
10-119
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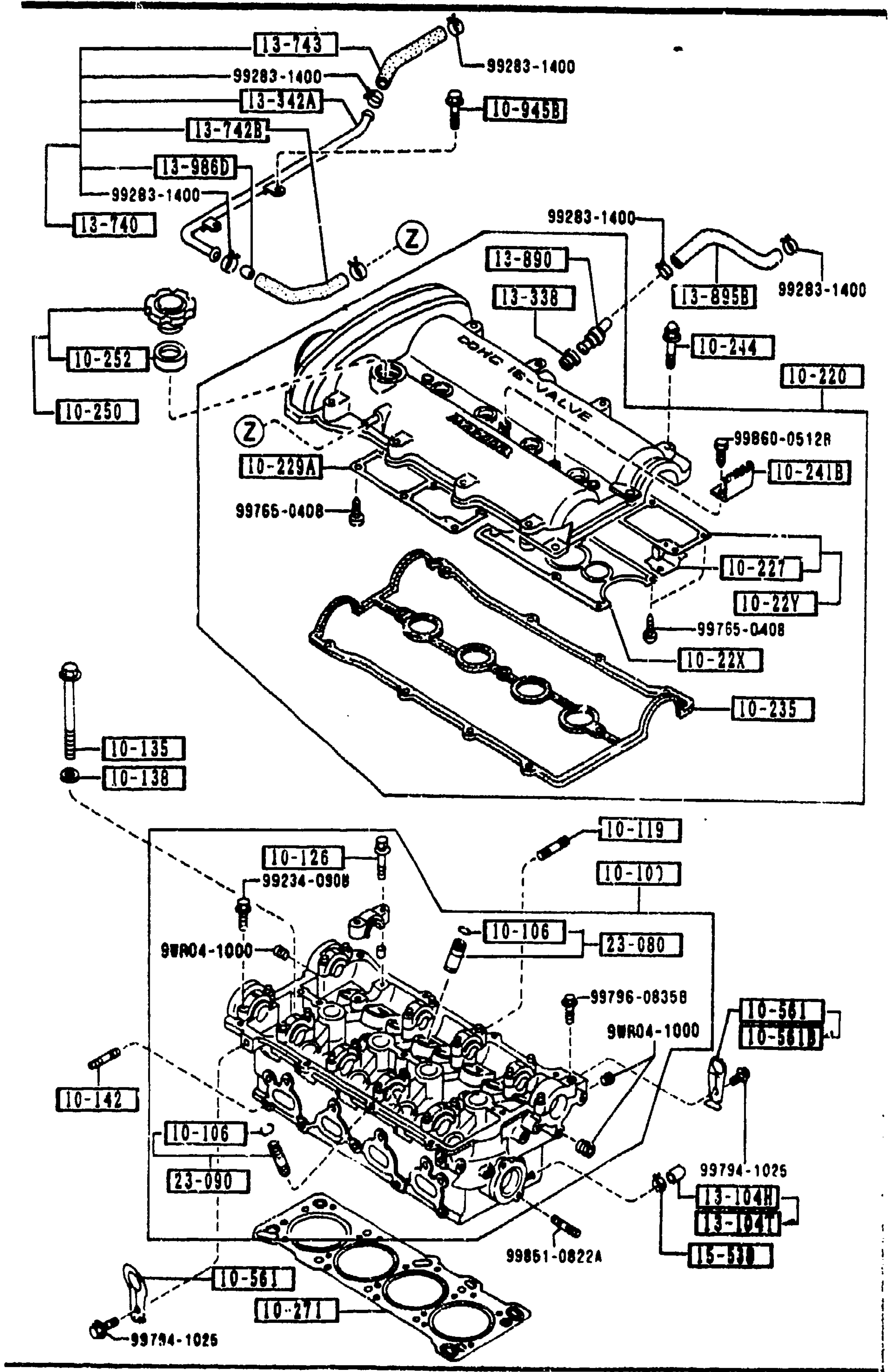
10-100
99234-0908
10-106
23-080
9WR04-1000
99796-08358
9WR04-1000
10-561
10-561B
10-142
10-106
23-090
99794-1025
13-104H
13-104T
99851-0822A
15-538
10-561
10-271
99794-1025
DOHC 16-VALVE

1010 -2 CYLINDER HEAD & COVER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B61P-10-235	1	NON ASBESTOS			
10-241B		PROTECTOR,HT.CORD-S. TANK			
B660-10-241	2				
10-244		BOLT,CYLINDER HEAD COVER			
B660-10-244	11				
10-250		CAP,OIL FILLER			
0453-10-250A	1				
10-252		GASKET			
0324-10-252	1				
10-271		GASKET,CYLINDER HEAD			
B6F4-10-271A	1	NON ASBESTOS			
10-561		HANGER,ENGINE			
B660-10-561	2				-9801
B660-10-561	1				9801-
10-561B		HANGER,ENGINE-REAR			
B61P-10-565	1				9801-
10-945B		BOLT			
B61P-13-366	2				
13-104H		CAP,BLIND			
F667-13-104	1				-9801
13-104T		CAP,SEALING			
FEA7-13-104	1				9801-
13-338		SEAL,RUBBER			
E301-13-338A	1				
13-342A		PIPE,VENTILATION			
B61P-13-74XA	1				

9801 NA35**-116316
9801 NA35**-126490

1010 CYLINDER HEAD & COVER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13-338
13-895B
99283-1400
10-252
10-250
10-244
10-220
Z
DOHC 16-VALVE
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10-227
10-22Y
99765-0408
10-22X
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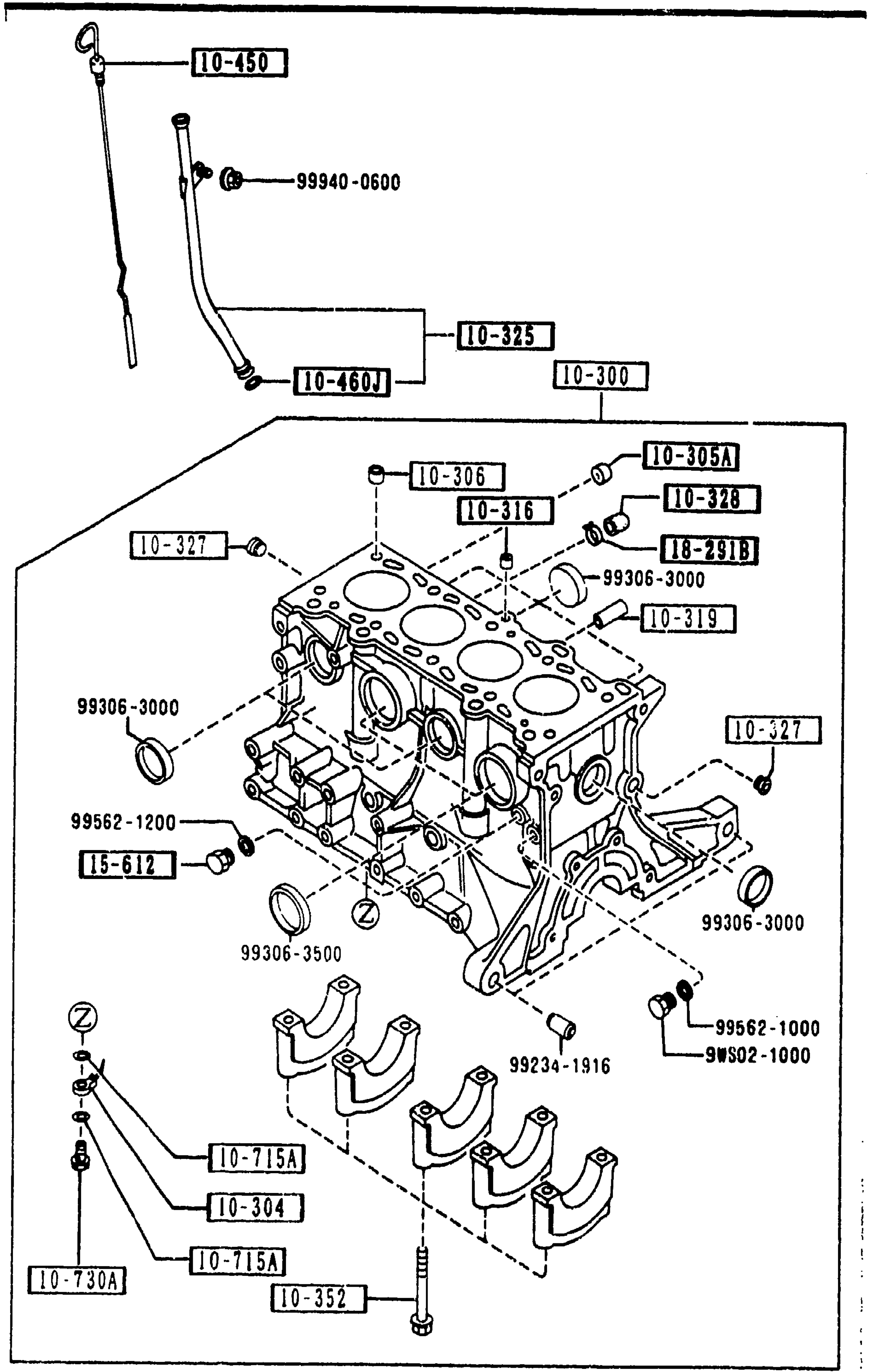
10-106
23-080
9WR04-1000
99796-0835B
9WR04-1000
10-561
10-561B
10-142
10-106
23-090
99794-1025
13-104H
13-104T
99861-0822A
15-538
10-561
10-271
99794-1025

1010 -3 M CYLINDER HEAD & COVER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-740 B61P-13-740A	1	HOSE,VENT.-PURGE CON T. V.			
13-742B B61P-13-742A	1	HOSE,VENTILATION			
13-743 B61P-13-743A	1	HOSE,VENTILATION			
13-890 BP05-13-890	1	VALVE,P.C.V.			
13-895B B61P-13-741	1	HOSE,P.C.V.			
13-986D B61P-13-986	1	ORIFICE			
15-538 JF02-15-538	1	CLAMP,WATER HOSE			
23-080 B6Z0-10-280	8	GUIDE,VALVE			
23-090 B6Z0-10-290	8	GUIDE,VALVE			

1030 CYLINDER BLOCK


10-450
99940-0600
10-325
10-460J
10-300
10-306
10-305A
10-316
10-328
10-327
18-291B
99306-3000
10-319
99306-3000
10-327
99562-1200
15-612
99306-3500
Z
99306-3000
Z
99562-1000
9WS02-1000
99234-1916
10-715A
10-304
10-715A
10-730A
10-352

1030 -1 CYLINDER BLOCK

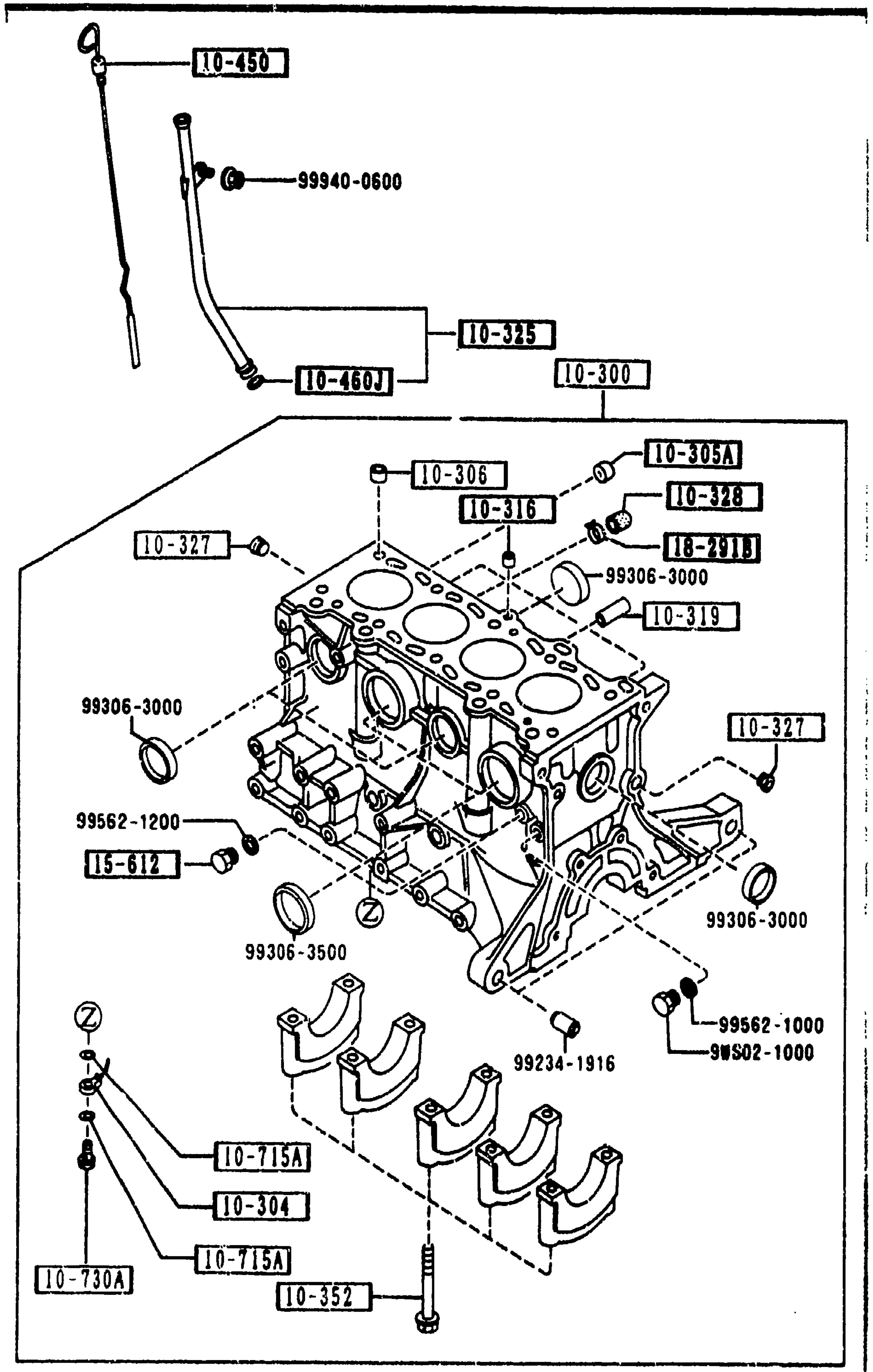
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-300		BLOCK,CYLINDER			
B6A7-10-300G	1				-9330
B64J-10-300	1				9330-
10-304		JET,OIL			
B660-10-580A	4				
10-305A		PLUG			
B366-10-305	1				9330-
10-306		PIN,TUBULAR			
B630-10-306	2				
10-316		PLUG,OIL CONTROL			
B630-10-305	1				-9330
10-319		JOINT			
B630-10-319	1				
10-325		PIPE,OIL LEVEL GAUGE			
B61P-10-440	1				
10-327		PLUG,BLIND			
0221-10-327	2				
10-328		COVER,BLIND-CYL. BLOCK			
B660-10-328	1				
10-352		BOLT,BEARING CAP			
B630-10-352	10				
10-450		GAUGE,OIL LEVEL			
B61P-10-450B A (B61P-10-450C)	1				-9825
B61P-10-450C	1				9825-
10-460J		RING,'O'			
99541-00907	1				
10-715A		GASKET,OIL JET			
SE01-10-715	8				

9330 NA35**-100072
9825 NA35**-118378

CAT. AUNA01-07

1992-02

1030 CYLINDER BLOCK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10-325
10-460J
10-300
10-306
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10-328
10-327
18-291B
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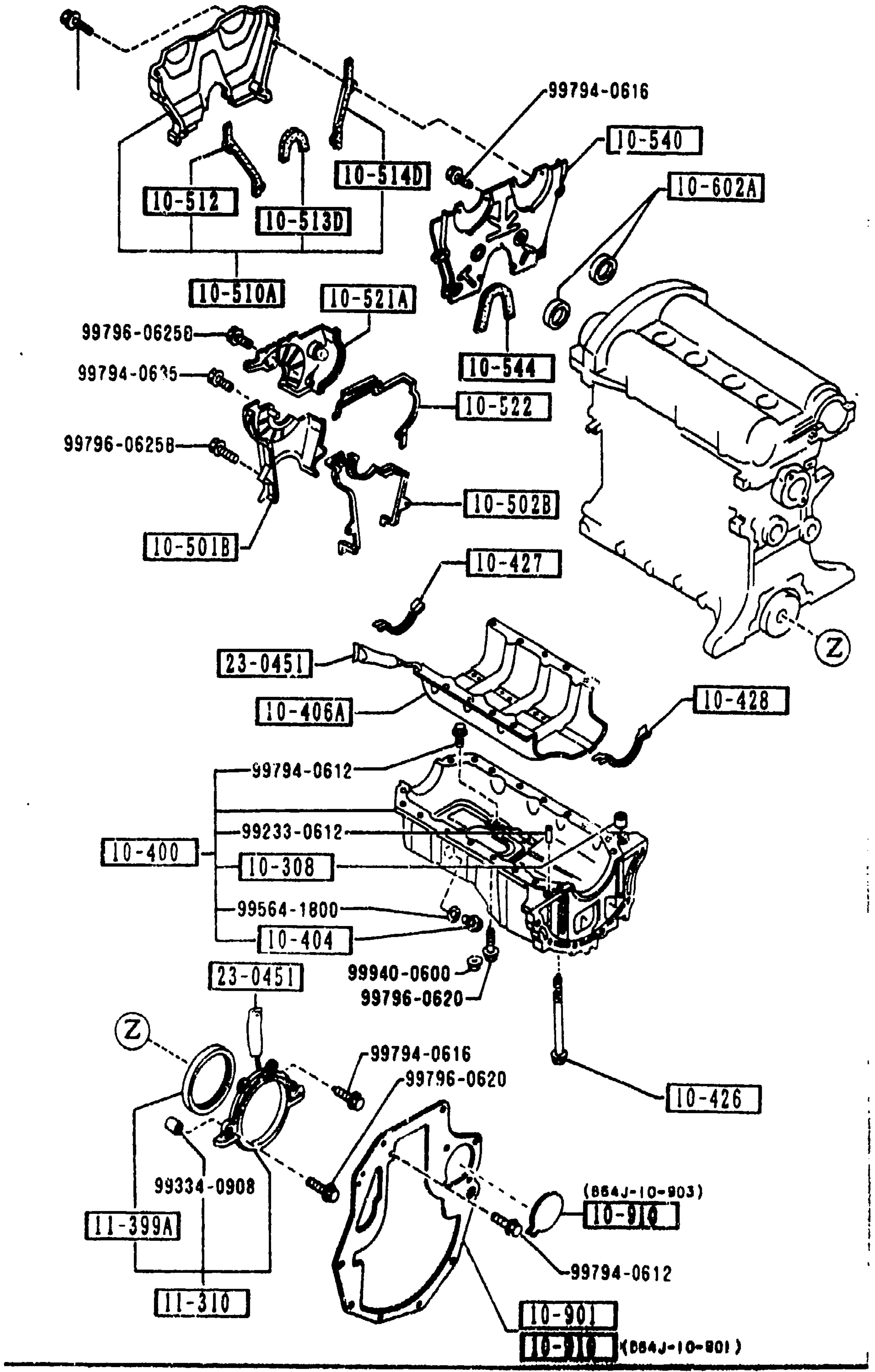
10-319
99306-3000
10-327
99562-1200
15-612
99306-3500
Z
99306-3000
99562-1000
9WS02-1000
99234-1916
Z
10-715A
10-304
10-715A
10-730A
10-352

1030 -2 * CYLINDER BLOCK

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-730A		VALVE,OIL JET			
SE01-10-730	4				
15-612		PLUG			
SE01-15-612	1				
18-291B		CLAMP,HOSE			
R230-15-538	1				

1040 OIL PAN & TIMING COVER


99794-0616
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10-602A
10-514D
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99794-0635
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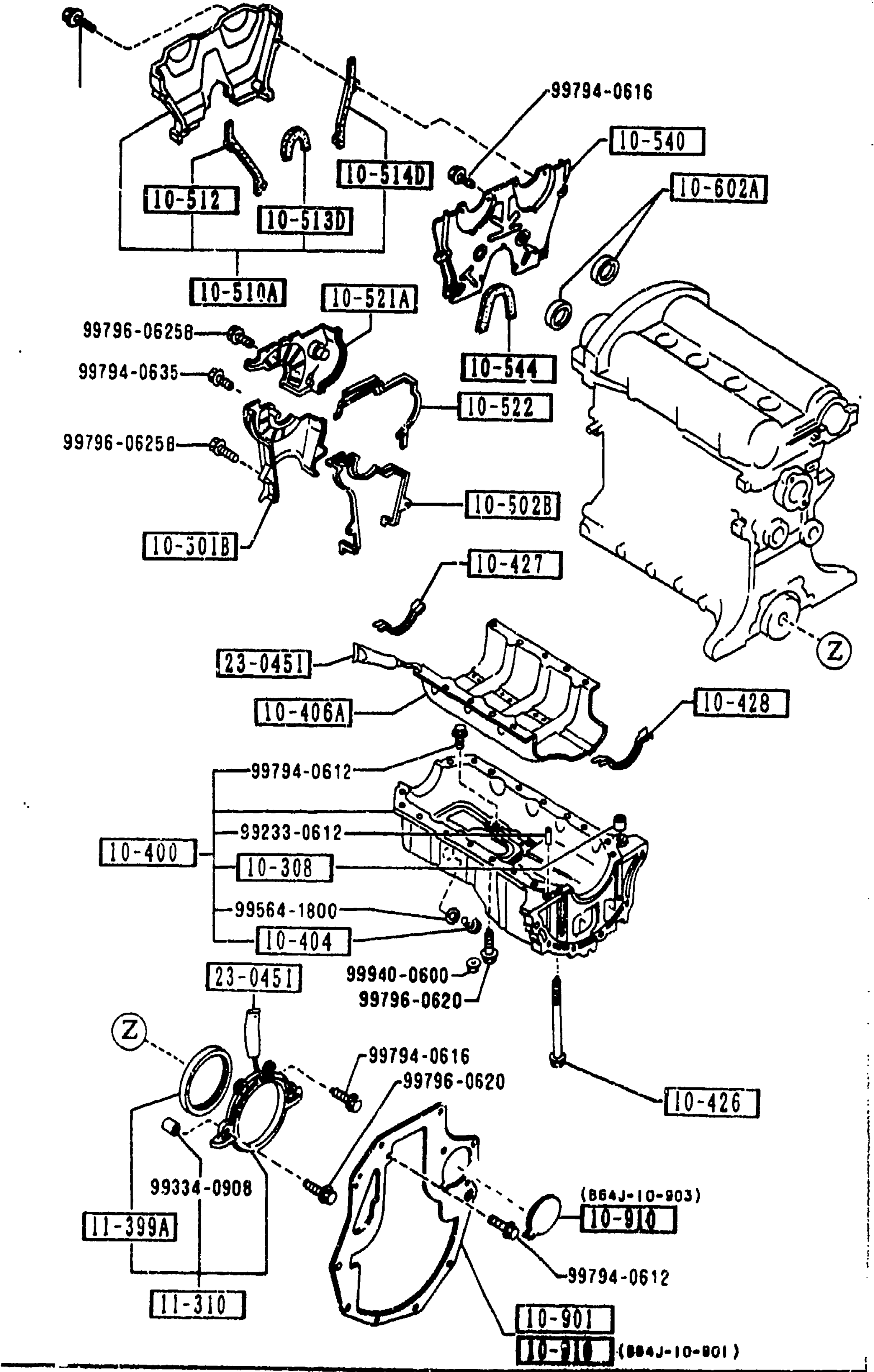
10-522
99796-06250
10-502B
10-501B
10-427
23-0451
10-406A
10-428
Z
99794-0612
10-400
99233-0612
10-308
99564-1800
10-404
23-0451
99940-0600
99796-0620
Z
99794-0616
99796-0620
10-426
99334-0908
11-399A
11-310
(B64J-10-903)
10-910
99794-0612
10-901
10-910
(B64J-10-901)

1040 -1 OIL PAN & TIMING COVER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-308		PIN,TUBULAR			
B6F4-10-308	1				
10-400		PAN,OIL			
B6Y0-10-400B A (B6Y0-10-400C)	1				-0201
B6Y0-10-400C	1				0201-
10-404		PLUG,DRAIN			
B6S7-10-404 (B6S7-10-404A)	1				-0201
B6S7-10-404A	1				0201-
10-406A		PLATE,OIL BAFFLE-CYL . BLK			
B61P-10-40YA	1				
10-426		BOLT			
B6S7-10-465	2				
10-427		GASKET,OIL PAN			
B6F4-10-427	1				
10-428		GASKET,OIL PAN			
B6F4-10-428	1				
10-501B		COVER,TIMING BELT-LWR			
B660-10-501D	1				
10-502B		GASKET,T.B.COVER LWR			
B660-10-502B	1	NON ASBESTOS			
10-510A		COVER(UP.),TIMING CHAIN			
B61P-10-510	1				
10-512		GASKET(L)			
B61P-10-512	1	NON ASBESTOS			
10-513D		GASKET(INN),TIMING BELT(L)			
B61P-10-513	1	NON ASBESTOS			

0201 NA35**-137180

1040 OIL PAN & TIMING COVER



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10-540
10-602A
10-512
10-513D
10-514D
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99796-06258
99794-0635
10-544
10-522
99796-06258
10-502B
10-501B
10-427
23-0451
10-406A
10-428
Z
99794-0612
10-400
99233-0612
10-308
99564-1800
10-404
23-0451
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99796-0620
Z
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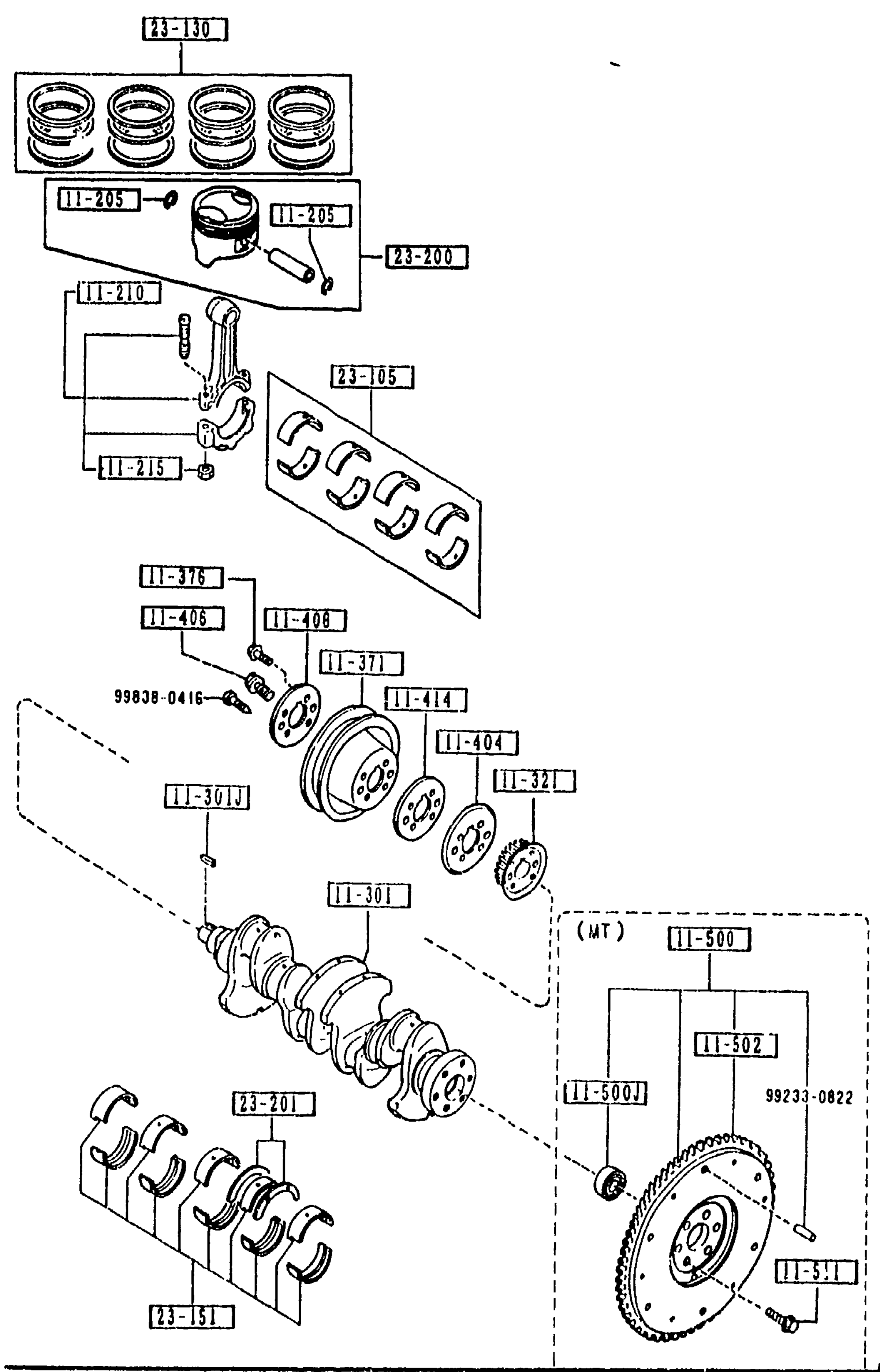
99796-0620
10-426
99334-0908
11-399A
(B64J-10-903)
10-910
99794-0612
11-310
10-901
10-910
(B64J-10-901)

1040 -2 * OIL PAN & TIMING COVER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-514D		GASKET(C),TIMING BELT(L)			
B61P-10-514	1	NON ASBESTOS			
10-521A		COVER,TIMING BELT-C.			
B660-10-521A AN(B660-10-521B)	1				-9626
B660-10-521B	1				9626-
10-522		GASKET,T.BELT COVER-C.			
B660-10-522	1	NON ASBESTOS			
10-540		PLATE,SEAL-T.BELT COVER U			
B61P-10-540B	1				
10-544		RUBBER,SEAL-SEAL PLATE			
B61P-10-544	1				
10-602A		SEAL,OIL			
F801-10-602	2				
10-901		PLATE,END			
B61P-10-901 A (B61P-10-901A)	1				-9701
B61P-10-901A	1	(MT)			9701-
10-910		COVER,END PLATE			
B64J-10-901	1	(AT)			
B64J-10-903	1	(AT)			
11-310		COVER,REAR			
B366-11-310 A (B366-11-310B)	1				-9701
B366-11-310B	1				9701-
11-399A		SEAL,OIL-CRANKSHAFT			
B630-11-312	1				
23-0451		TUBE,SILICON			
8527-77-739	1				

9626 NA35**-111021
9701 NA35**-111969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11-408
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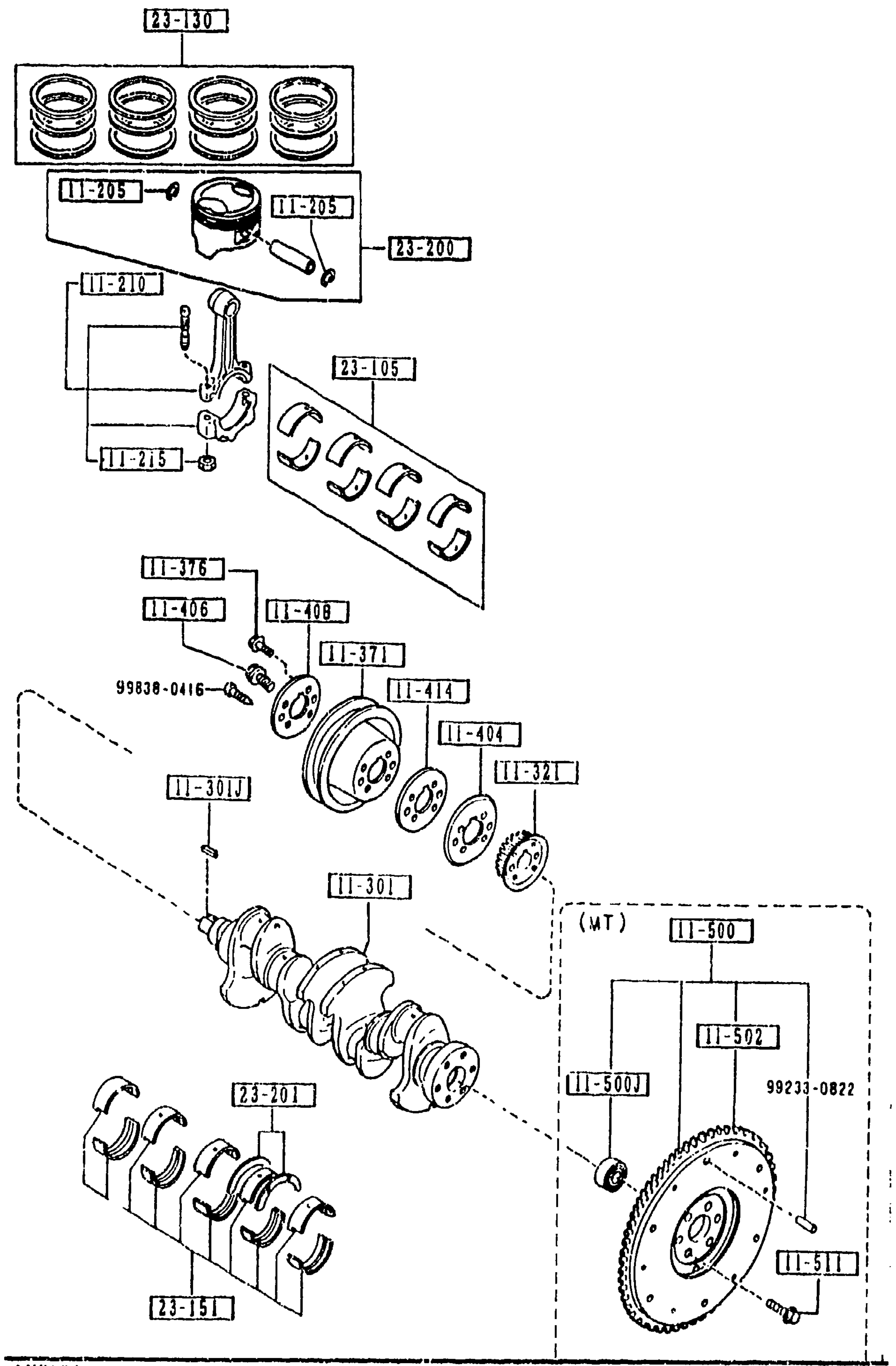
11-404
11-321
11-301J
11-301
(MT)
11-500
11-502
11-500J
99233-0822
23-201
11-511
23-151

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
11-205		CLIP			
0221-11-205	8				
11-210		ROD,CONNECTING			
B6S7-11-210D	4				
11-215		NUT,CONNECTING ROD			
B6S7-11-215A	8				
11-301		CRANKSHAFT			
B616-11-300B	1				
11-301J		KEY,WOODRUFF-PULLEY			
B630-11-317 A (B630-11-317A)	1				-0101
B630-11-317A	1				0101-
11-321		PULLEY,TIMING BELT			
B366-11-321A	1				
11-371		PULLEY,CRANKSHAFT			
B6S7-11-401A	1				
11-376		BOLT,PULLEY			
B631-11-405	4				
11-404		PLATE,TIMING BELT GUIDE			
B541-11-404	1				
11-406		BOLT,LOCK-C.SHAFT PULLEY			
B630-11-406C	1				
11-408		PLATE,CRANKSHAFT PULLEY			
B630-11-408B	1				
11-414		PLATE(OUT),TIMING BELT			
B631-11-414	1				
11-500		WHEEL,FLY			
B61P-11-500	1	(MT)			

0101 NA35**-133591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11-371
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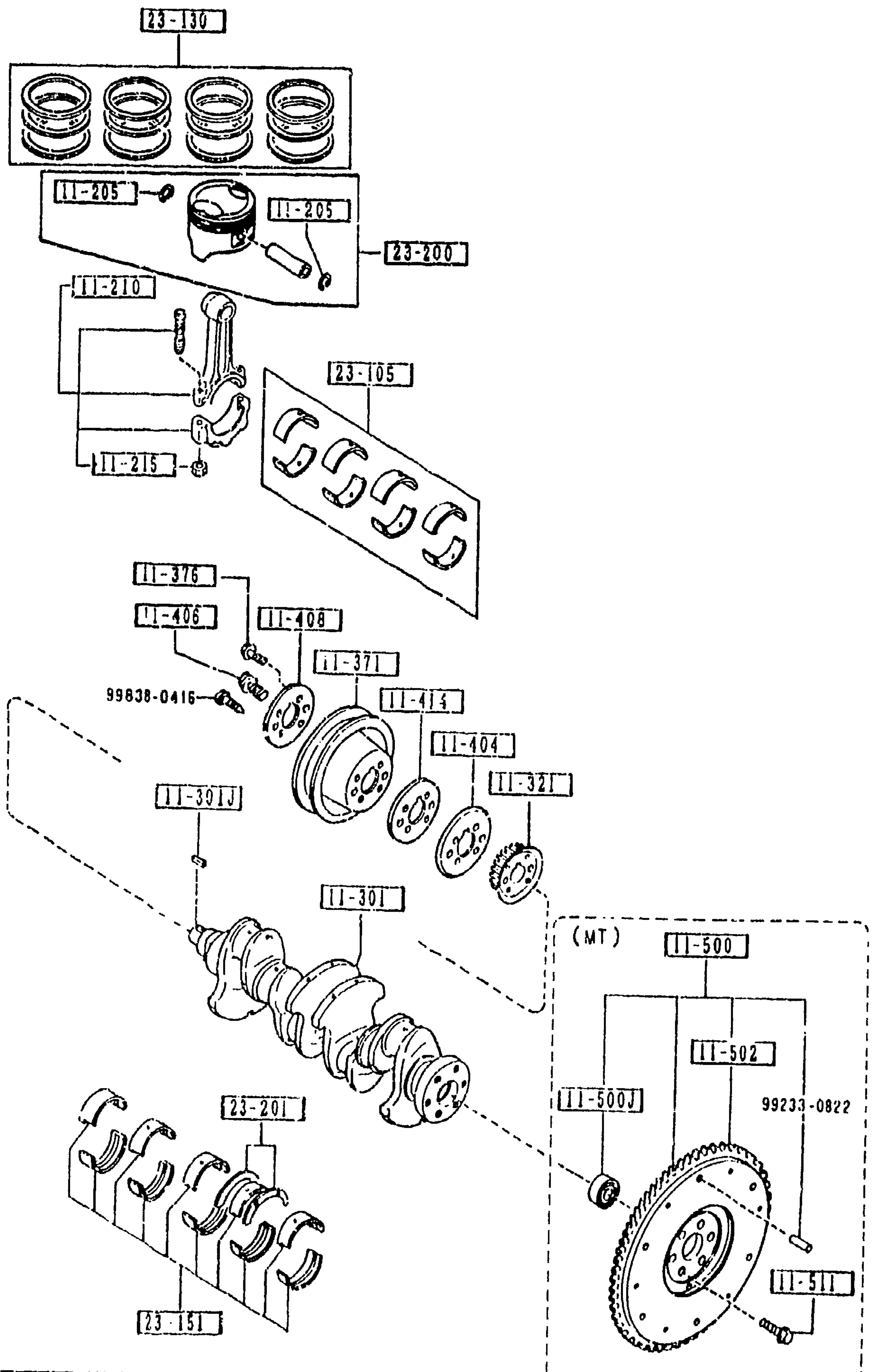
11-414
11-404
11-321
11-301J
11-301
(MT)
11-500
11-502
11-500J
99233-0822
23-201
11-511
23-151

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
11-500J		BEARING,BALL-FLY WHEEL			
F801-11-303	1	(MT)			
11-502		GEAR,RING-FLY WHEEL			
B367-11-502	1	(MT)			
11-511		BOLT,LOCK-FLY WHEEL			
F201-11-511	6	(MT)			
23-105		METAL SET,CONN.ROD			
B6Y1-11-SE0	1	STD.			
B6Y1-11-SFX	1	O.S. 0.50			
B6Y1-11-SFY	1	O.S. 0.75			
B6Y1-11-SF0	1	O.S. 0.25			
23-130		RING SET,PISTON			
B6Y3-11-SC0	1	STD. (AT)			
B6Y3-11-SDX	1	O.S. 0.50 (AT)			
B6Y3-11-SD0	1	O.S. 0.25 (AT)			
B6Y4-11-SC0 A (B6Y4-11-SC0A)	1	STD.			-9A04
B6Y4-11-SDX A (B6Y4-11-SDXA)	1	O.S. 0.50			-9A04
B6Y4-11-SD0 A (B6Y4-11-SD0A)	1	O.S. 0.25			-9A04
B6Y4-11-SC0A	1	STD. (MT)			9A04-
B6Y4-11-SDXA	1	O.S 0.50 (MT)			9A04-
B6Y4-11-SD0A	1	O.S 0.25 (MT)			9A04-
23-151		METAL SET,MAIN BRG.			
B6Y2-11-SG0	1	STD.			
B6Y1-11-SHX	1	O.S. 0.50			

9A04 NA35NM-123222

1100 PISTON,CRANKSHAFT & FLYWHEEL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11-215
11-376
11-406
11-408
11-371
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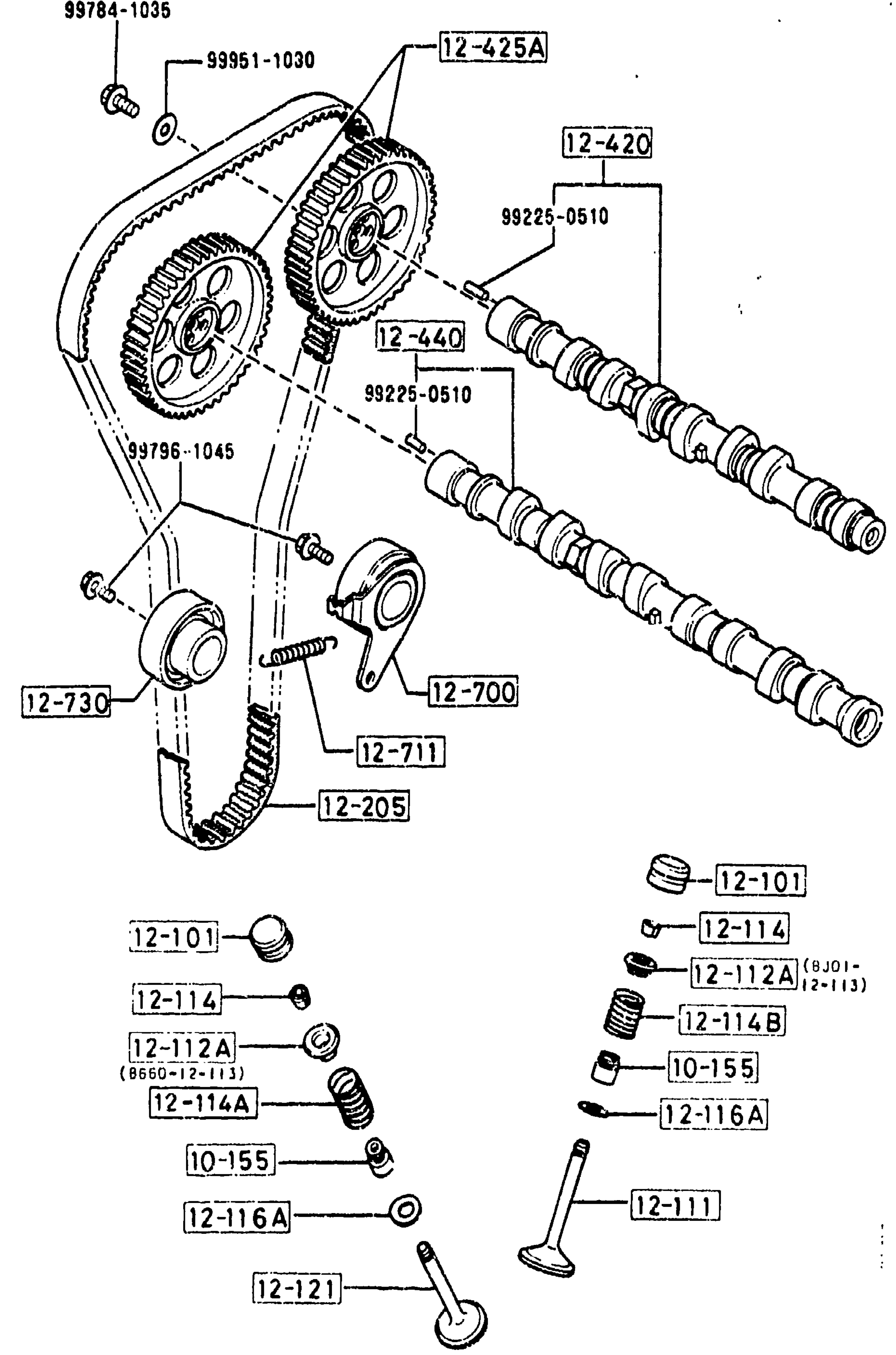
11-414
11-404
11-321
11-301J
11-301
(MT)
11-500
11-502
11-500J
99233-0822
23-201
11-511
23-151

1100 -3 * PISTON,CRANKSHAFT & FLYWHEEL

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B6Y1-11-SH0	1	O.S. 0.25			
23-200		PISTON SET			
B6Z5-11-SA0	4	STD. (AT)			
B6Z5-11-SBX	4	O.S. 0.50 (AT)			
B6Z5-11-SB0	4	O.S. 0.20 (AT;			
B6Z2-11-SA0B A (B6Z2-11-SA0C)	4	STD			-9601
B6Z2-11-SBXB A (B6Z2-11-SBXC)	4	O.S. 0.50			-9601
B6Z2-11-SB0B A (B6Z2-11-SB0C)	4	O.S. 0.25			-9601
B6Z2-11-SA0C	4	STD. (MT)			9601-
B6Z2-11-SBXC	4	O.S. 0.50 (MT)			9601-
B6Z2-11-SB0C	4	O.S. 0.25 (MT)			9601-
23-201		METAL SET,THRUST			
B6Y0-11-SJ0 A (B6Y1-11-SJ0)	1	STD.			-0405
B6Y0-11-SKX A (B6Y1-11-SKX)	1	O.S. 0.50			-0405
B6Y0-11-SKY	1	O.S. 0.75			-0405
B6Y0-11-SK0 A (B6Y1-11-SK0)	1	O.S. 0.25			-0405
B6Y1-11-SJ0	1	STD.			0405-
B6Y1 11-SKX	1	O.S. 0.50			0405-
B6Y1-11-SKY	1	O.S. 0.75			0405-
B6Y1-11-SK0	1	O.S. 0.25			0405-

9601 NA35**-106797
0405 NA35**-147140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12-440
99225-0510
99796-1045
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12-700
12-711
12-205
12-101
12-101
12-114
12-114
12-112A
(BJ01-12-113)
12-112A
(B660-12-113)
12-114B
12-114A
10-155
10-155
12-116A
12-116A
12-111
12-121

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-155		SEAL,VALVE			
B660-10-155	16				
12-101		ADJUSTER,HYDRAULIC LASH			
B660-12-101	16	NITTAN VALVE			
12-111		VALVE,INLET			
B6S7-12-111	8				
12-112A		SEAT,VALVE SPG-UP.			
BJ01-12-113	8				
B660-12-113	8				
12-114		COTTER,VALVE			
B660-12-114	32				
12-114A		SPRING,OUT.-VALVE			
B61P-12-125	6				
12-114B		SPRING,VALVE			
BJ01-12-125	8				
12-116A		SEAT,VALVE SPG.-LWR			
B660-12-123	16				
12-121		VALVE,EXHAUST			
B660-12-121	8				
12-205		BELT,TIMING			
B6S7-12-205A	1				
12-420		CAMSHAFT			
B64J-12-420	1	(AT)			
B660-12-420C	1	(MT)			
12-425A		PULLEY,CAMSHAFT			
B6S7-12-425A	2				
12-440		CAMSHAFT,EXHAUST			
B[illegible]A7-12-440A	1	(AT)			

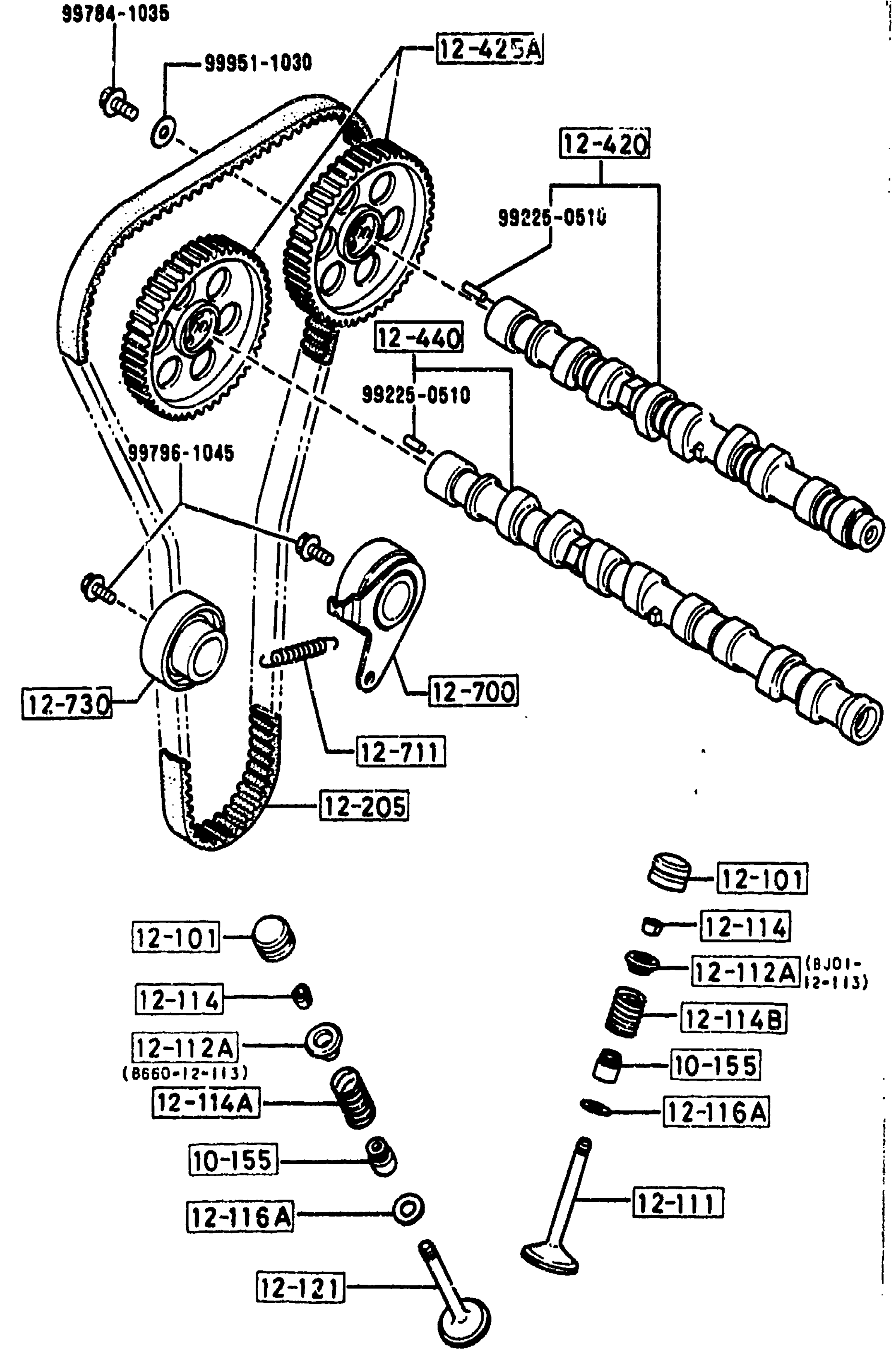
SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-I03	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON,CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-I04	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET,PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-I08	1930	CLUTCHES & PLANETARY GEARS (AUTOMATIC)						
1-D09	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMATIC)						
1-I09	1960	GASKET & SEAL KIT (AUTOMATIC)						

CATLOG-NO= AUNA01-07

DATE. 1992-02

1200 VALVE SYSTEM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12-440
99225-0510
99796-1045
12-730
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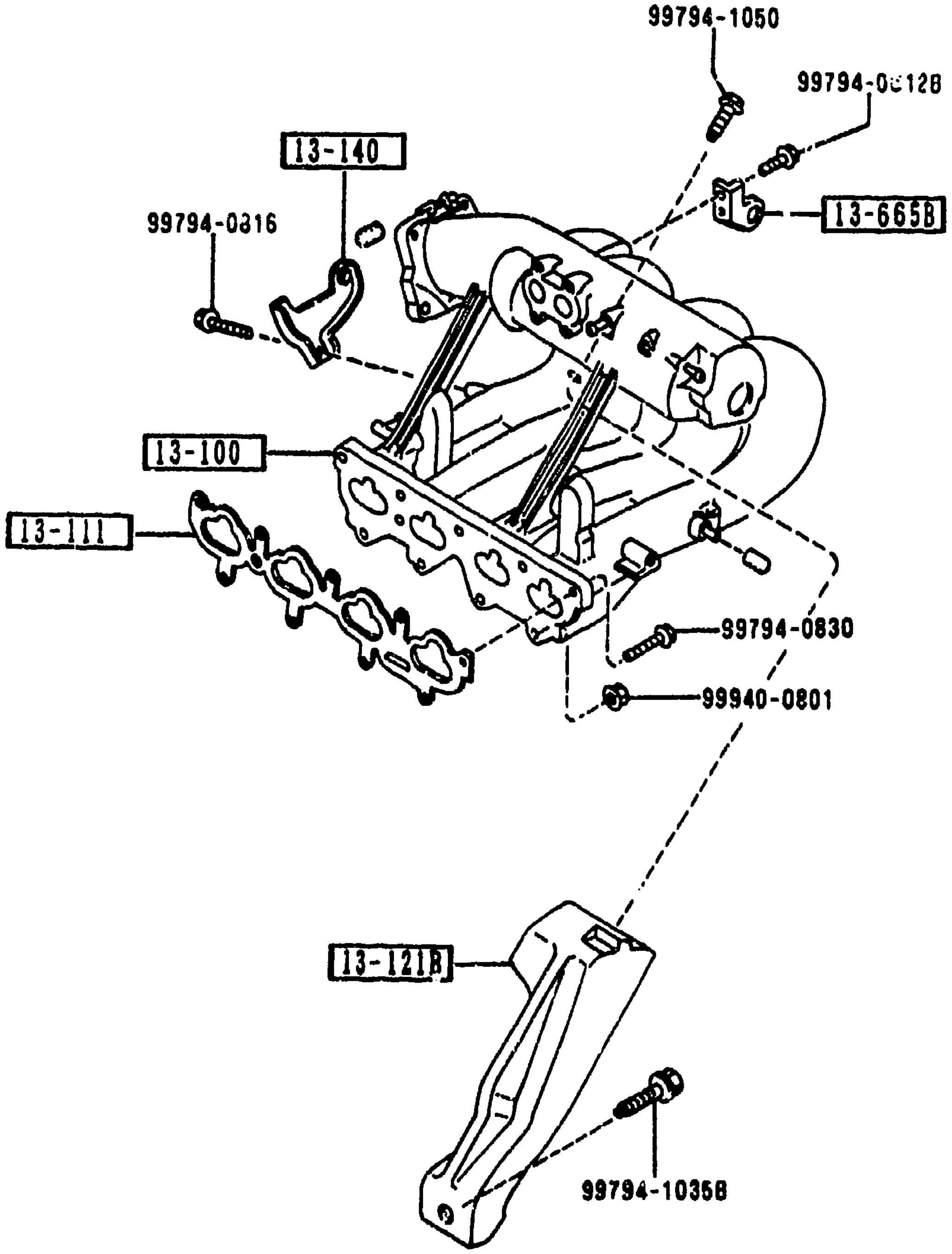
12-205
12-101
12-114
12-112A
(BJ01-12-113)
12-114B
10-155
12-116A
12-111
12-101
12-114
12-112A
(B660-12-113)
12-114A
10-155
12-116A
12-121

1200 -2 * VALVE SYSTEM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
B61P-12-440	1	(MT)			
12-700		TENSIONER,T.BELT			
B660-12-700C	1				
12-711		SPRING,TENSIONER			
B660-12-711C	1				
12-730		IDLER,TIMING BELT			
B660-12-730B	1				

1300 INLET MANIFOLD

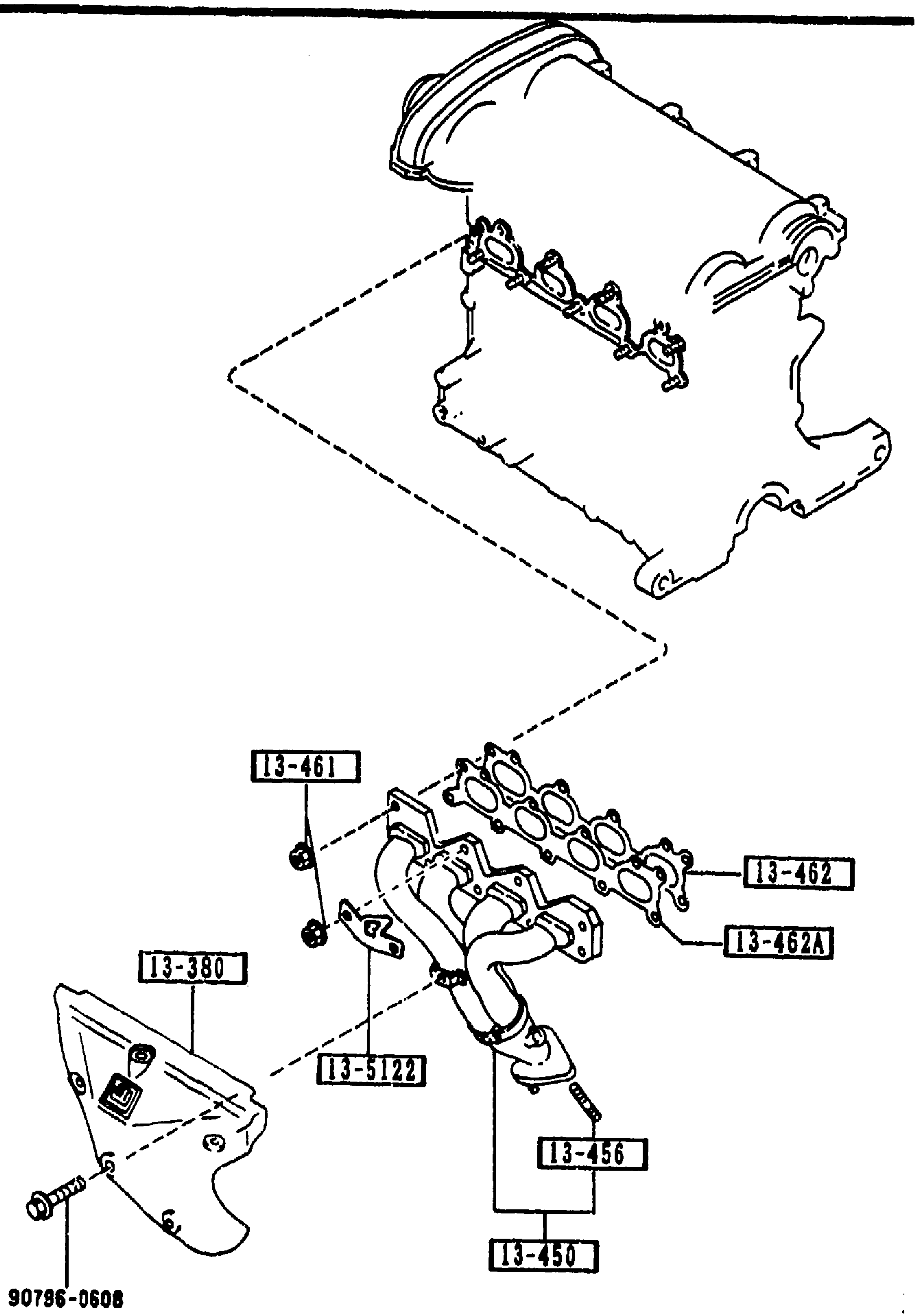

99794-1050
99794-08128
13-140
13-665B
99794-0316
13-100
13-111
99794-0830
99940-0801
13-121B
99794-10358

* NOTES : REFER TO SECT.NO.1399 AS FOR CAPS.

1300 -1 * INLET MANIFOLD

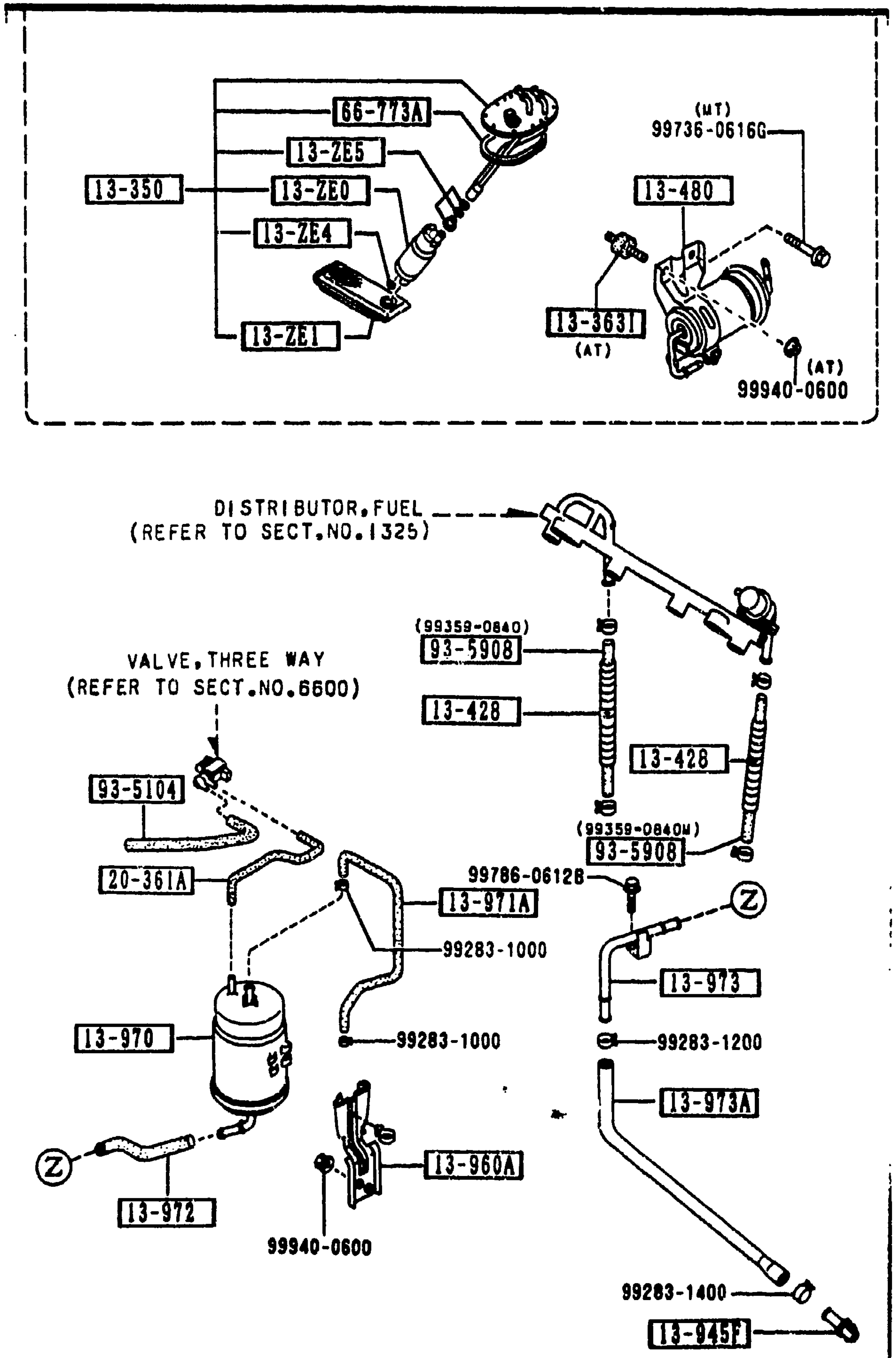
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-100		MANIFOLD,INLET			
B61P-13-100B A (B61P-13-100C)	1				-9417
B61P-13-100C AN(B61P-13-100D)	1				9417-0404
B61P-13-100D	1				0404-
13-111		GASKET,IN.MANIFOLD			
B61P-13-111	1	NON ASBESTOS			
13-121B		STAY,MANIFOLD			
B61P-13-121	1				
13-140		BRKT.SURGE TANK			
B61P-13-140	1				
13-665B		BRACKET,ACCEL WIRE			
B61P-13-665	1				

9417 NA35**-100773
0404 NA35**-146945



PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-380		INSULATOR,HEAT			
B61P-13-380A	1				-9C01
B61P-13-380B	1				9C01-
13-450		MANIFOLD,EXHAUST			
B61P-13-450 A (B61P-13-450A)	1				-9714
B61P-13-450A	1				9714-
13-456		STUD			
2306-13-456	3				
13-461		NUT,EX.MANIFOLD			
B6S7-13-465	9				
13-462		GASKET,EX.MANIFOLD			
B695-13-460 A (B695-13-460A)	1	NON ASBESTOS			-9801
B695-13-460A	1	NON ASBESTOS			9801-
13-462A		GASKET,EX.MANIFOLD			
B695-13-462	1				
13-5122		BRACKET,EX.MANIFOLD			
B61P-13-468	1				9C01-

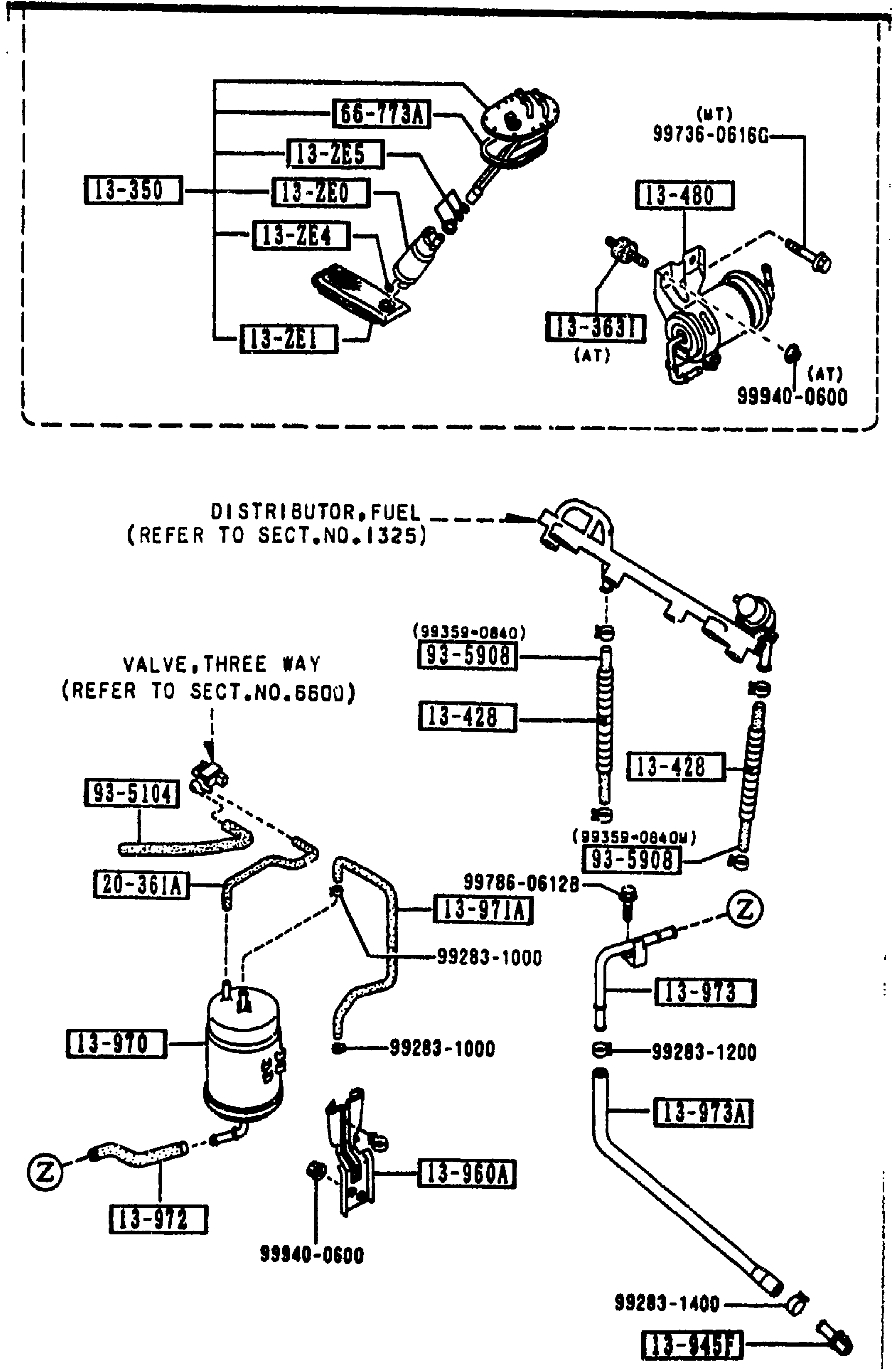
9714 NA35**-113830
9801 NA35**-116316
9C01 NA35**-130310


66-773A
13-ZE5
13-350
13-ZE0
13-ZE4
13-ZE1
(MT)
99736-0616G
13-480
13-363I
(AT)
(AT)
99940-0600
DISTRIBUTOR,FUEL
(REFER TO SECT.NO.1325)
(99359-0840)
93-5908
13-428
VALVE,THREE WAY
(REFER TO SECT.NO.6600)
93-5104
13-428
(99359-0840M)
93-5908
20-361A
99786-06128
13-971A
Z
99283-1000
13-973
13-970
99283-1000
99283-1200
13-973A
Z
13-960A
13-972
99940-0600
99283-1400
13-945F

* NOTES : REFER TO SECT.NO.1399 AS FOR HOSE CLIPS.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-ZE0		PUMP,FUEL			
B61P-13-ZE0	1				
13-ZE1		FILTER,FUEL PUMP			
B61P-13-ZE1	1				
13-ZE4		WASHER,LOCK-PUMP FILTER			
FEH2-13-ZE4	1	DENSO			
13-ZE5		RING,'O'-FUEL PUMP			
BJ04-13-ZE5	1				-9511
B61P-13-ZE5	1				9511-
13-350		PUMP,FUEL			
B61P-13-350B	1				
13-363I		RUBBER,INSULATION			
N326-13-363B	2	(AT)			
13-428		PROTECTOR			
B61P-13-428	2				
13-480		FILTER,FUEL			
B61P-20-490	1				
13-945F		CONNECTOR			
JE16-13-298	1				
13-960A		BRACKET,CANISTER			
B61P-13-960	1				
13-970		CANISTER			
B61P-13-970	1				
13-971A		HOSE,VACUUM			
B61P-13-971	1				
13-972		HOSE,EVAPORATION			
B61P-13-972A	1				

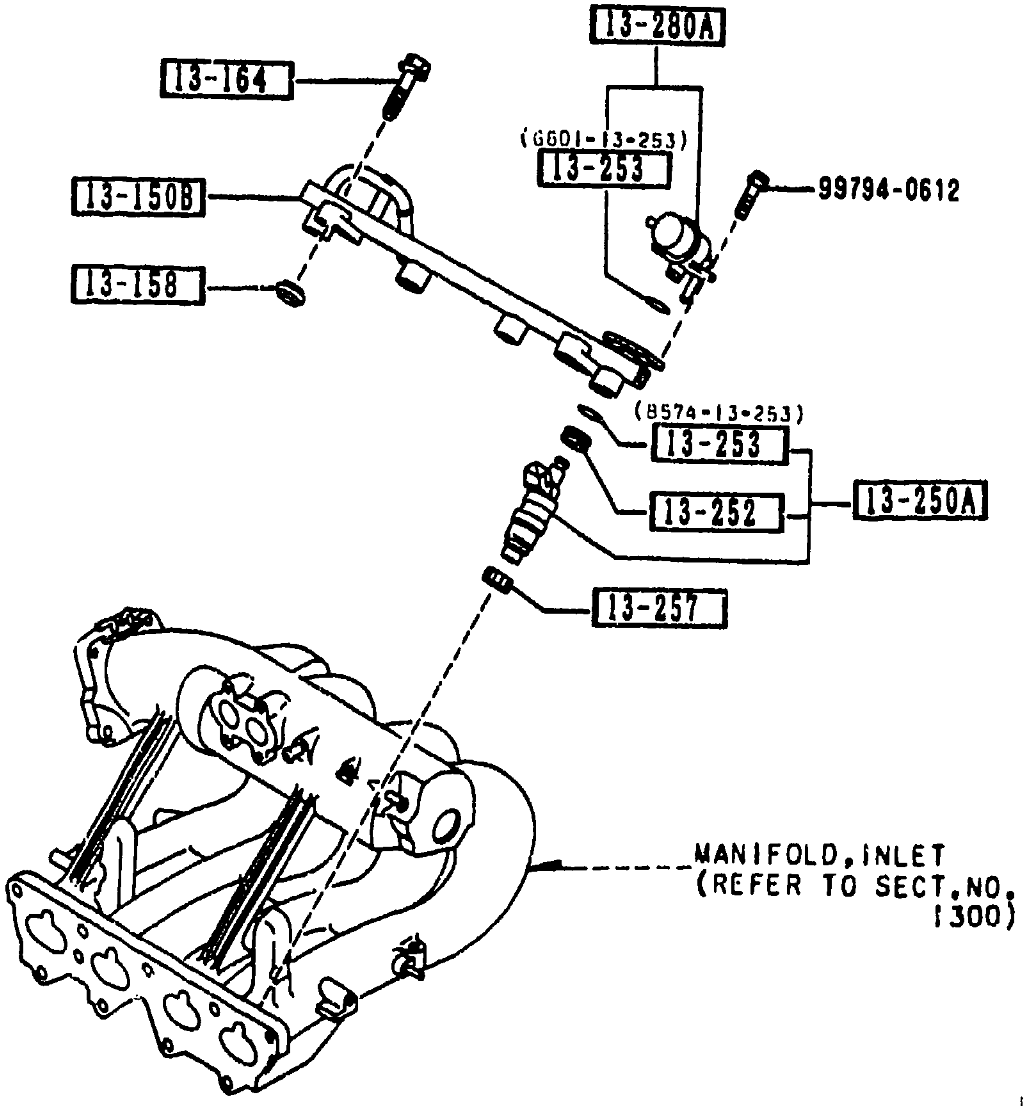
9511 NA35**-103176


66-773A
13-2E5
13-350
13-2E0
13-2E4
13-2E1
(MT)
99736-0616G
13-480
13-363I
(AT)
(AT)
99940-0600
DISTRIBUTOR,FUEL
(REFER TO SECT.NO.1325)
(99359-0840)
93-5908
13-428
13-428
(99359-0840M)
93-5908
VALVE,THREE WAY
(REFER TO SECT.NO.6600)
93-5104
20-361A
13-971A
99283-1000
99283-1000
99786-06128
Z
13-973
99283-1200
13-970
13-973A
13-960A
Z
13-972
99940-0600
99283-1400
13-945F

* NOTES : REFER TO SECT.NO.1399 AS FOR HOSE CLIPS.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-973		HOSE,DRAIN			
B61P-13-97YA	1				
13-973A		HOSE,EVAPORATION			
B61P-13-973A	1				
20-361A		TUBE,VACUUM			
B61P-20-361	1				
66-773A		GASKET			
NA01-60-962	1				
93-5104		HOSE			
99351-04999	1				
93-5908		HOSE			
99359-0840	1				
99359-0840M	1				

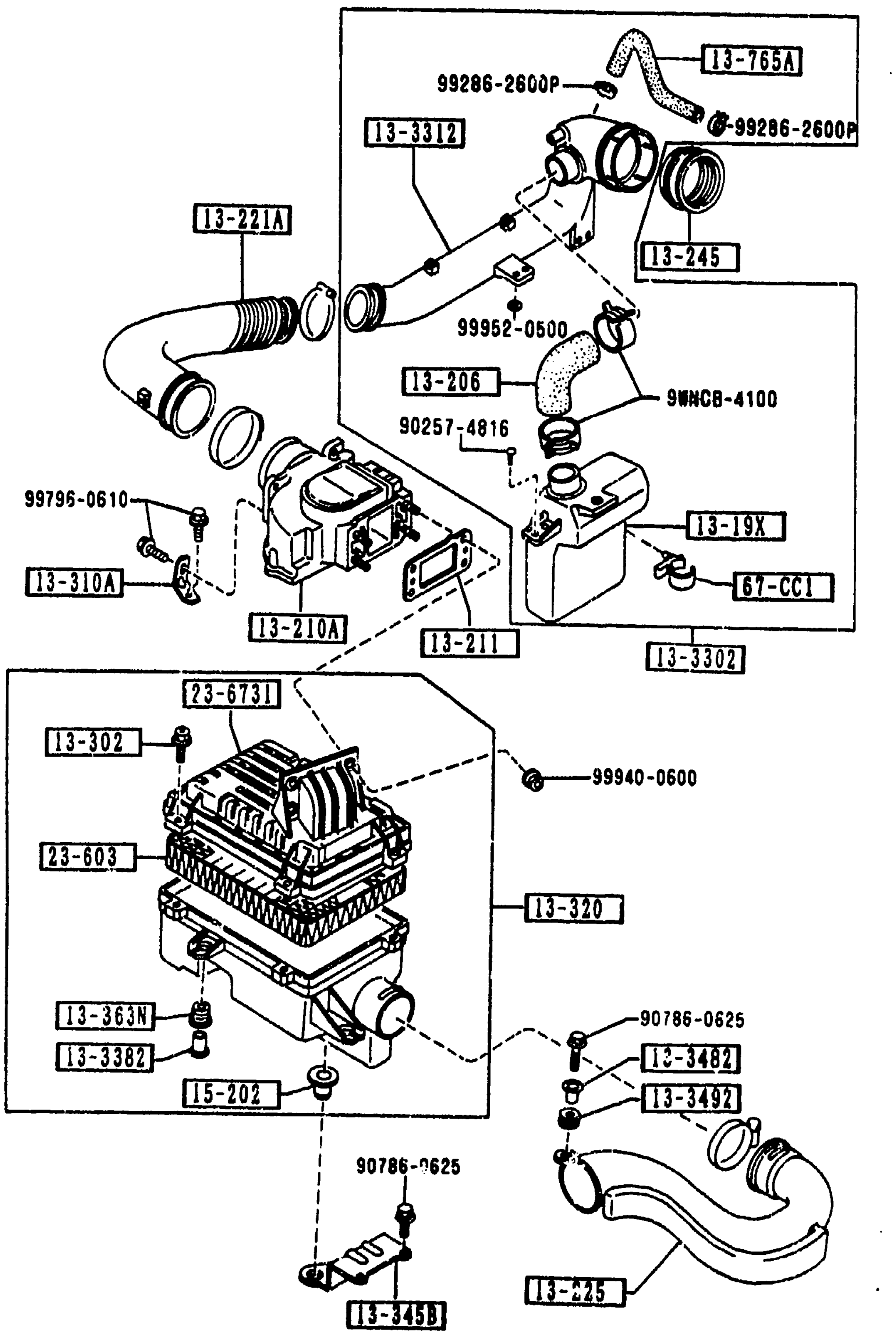
1325 FUEL DISTRIBUTOR


13-280A
13-164
(G601-13-253)
13-253
99794-0612
13-150B
13-158
(8574-13-253)
13-253
13-252
13-250A
13-257
MANIFOLD,INLET
(REFER TO SECT.NO.
1300)

1325 -1 * FUEL DISTRIBUTOR

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-150A		DISTRIBUTOR,FUEL			
B61P-13-150	1				
13-158		INSULATOR,FUEL DIST.			
B675-13-158	2				
13-164		BOLT,FUEL DISTRIBUTOR			
F8B3-13-164	2				
13-250A		INJECTOR,FUEL			
B6S7-13-250	4				
13-252		GROMMET			
8574-13-252	4				
13-253		RING,'O'			
G601-13-253	1				
8574-13-253	4				
13-257		INSULATOR,INJECTION			
JE06-13-257	4				
13-280A		PRESSURE RG.,FUEL			
B61P-13-280	1				

1330 AIR CLEANER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99796-0610
13-19X
13-310A
67-CC1
13-210A
13-211
13-3302
23-6731
13-302
99940-0600
23-603
13-320
13-363N
13-3382
15-202
90786-0625
13-3482
13-3492
90786-0625
13-345B
13-225

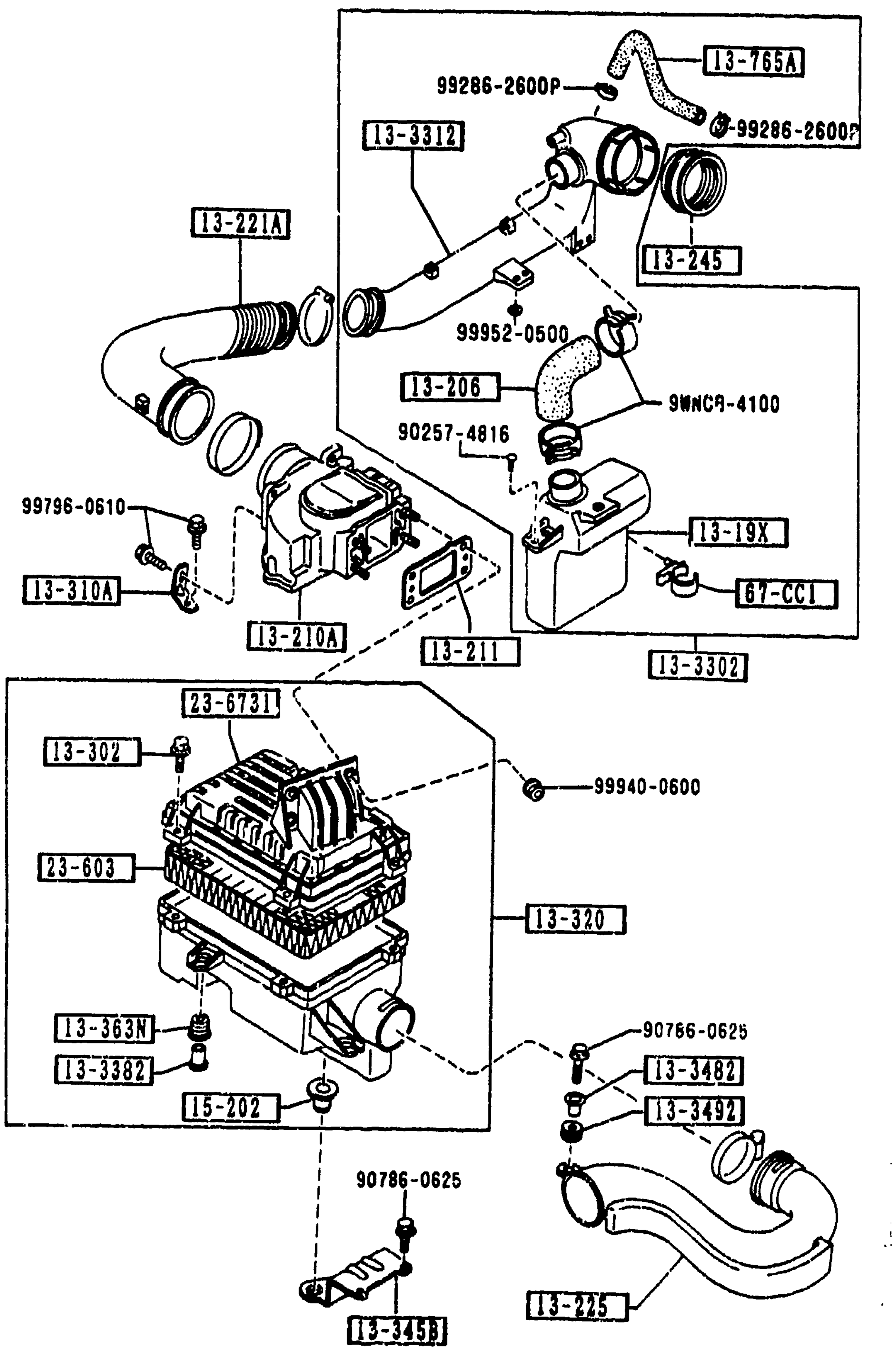
:* NOTES : REFER TO SECT.NO.1399 AS FOR HOSE CLIPS.

1330 -1 AIR CLEANER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-19X		CHAMBER,RESONANCE			
B61P-13-19XA	1	(MT)			
B64J-13-19X	1	(AT)			
13-206		HOSE.AIR			
B61P-13-206A	1				
13-210A		METER,AIR FLOW			
B6S7-13-210A	1				
13-211		GASKET			
B6S7-13-211A	1	NON ASBESTOS			
13-221A		HOSE,AIR			
B61P-13-221B	1				
13-225		DUCT,FRESH AIR			
B61P-13-200A A (B61P-13-200B)	1				-9926
B61P-13-200B	1				9926-
13-245		JOINT,RUBBER			
B61P-13-245	1				
13-302		BOLT,AIR CLEANER			
F201-13-302A	5				
13-310A		BRKT,AIR FLOW METER			
B61P-13-311B	1				
13-320		CLEANER,AIR			
B61P-13-320 A (B61P-13-320A)	1				-9825
B61P-13-320A	1				9825-
13-3302		TUBE,AIR INTAKE			
B61P-13-330E	1	(MT)			
B64J-13-330	1	(AT)			
13-3312		PIPE,AIR INTAKE			

9825 NA35**-118378
9926 NA35**-122894

1330 AIR CLEANER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15-202
90786-0625
13-3482
13-3492
90786-0625
13-345B
13-225

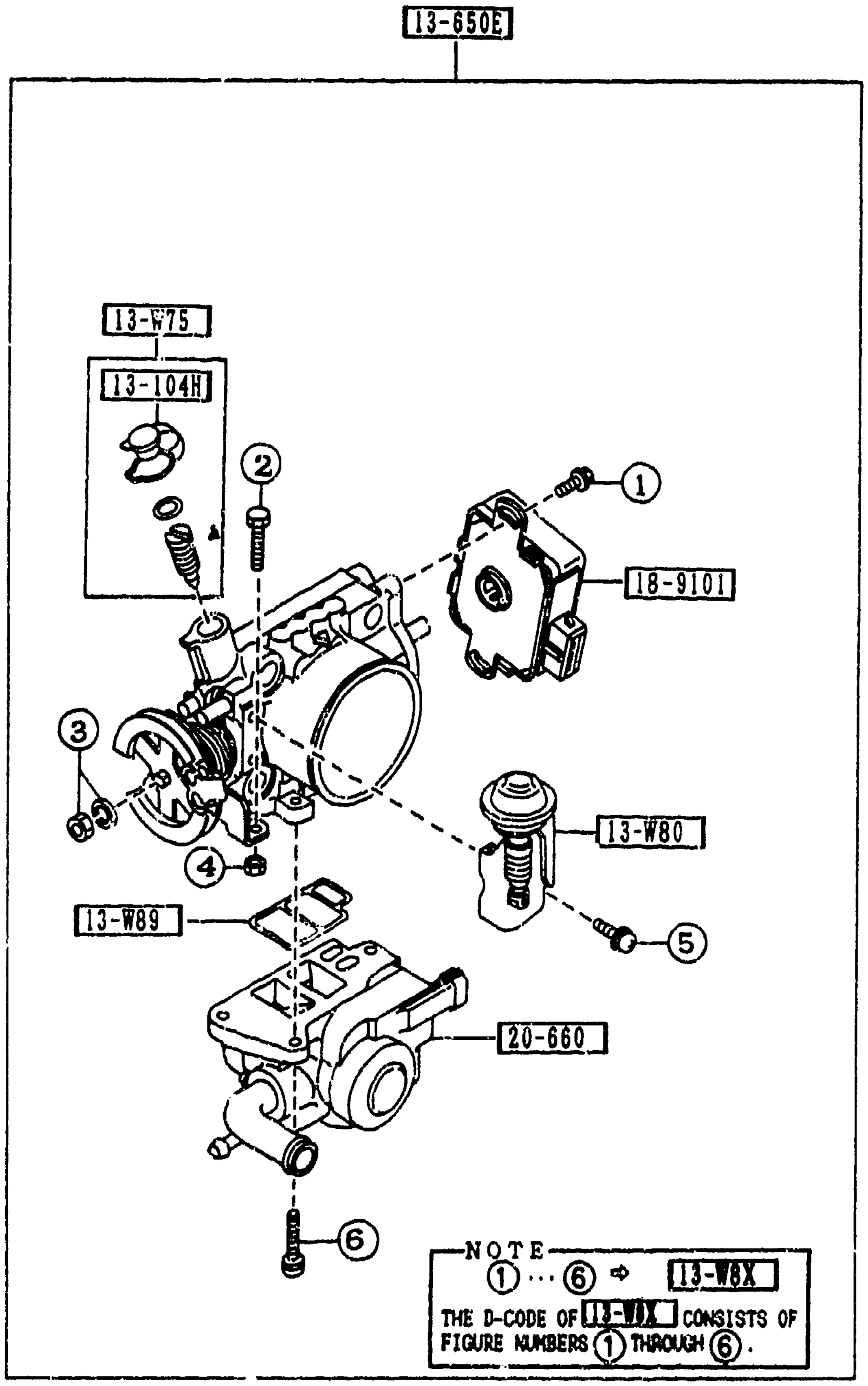
* NOTES : REFER TO SECT.NO.1399 AS FOR HOSE CLIPS.

1330 -2 * AIR CLEANER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B61P-13-331B	1				
13-3382		SPACER			
FE51-13-329	3				
13-345B		BRACKET,AIR CLEANER			
B61P-20-211	1				
13-3482		SPACER,AIR INT.PIPE			
V115-13-348	1				-0201
SLA1-13-321	1				0201-
13-3492		INSULATOR			
S501-13-349	1				
13-363N		RUBBER,MOUNTING			
FE51-13-363	3				
13-765A		HOSE,AIR			
B61R-13-765	1				
15-202		RUBBER,MOUNT			
E501-15-202	1	DENSO			
23-603		ELEMENT,AIR CLEANER			
B6S7-13-Z40	1				
23-6731		COVER,AIR CLEANER			
B61P-13-Z01	1				
67-CC1		CLIP,HARNESS			
NA02-67-CH1	1				

0201 NA35**-137180

1364 THROTTLE BODY

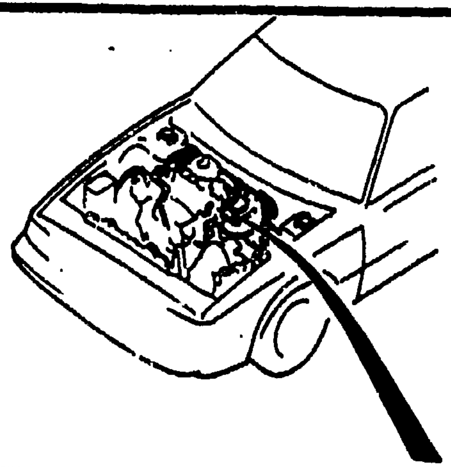


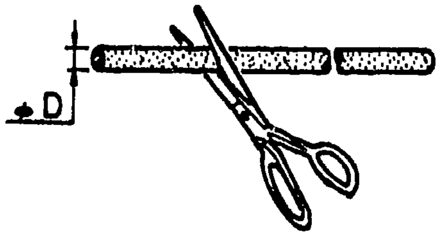
NOTE
①…⑥ ⇨ 13-W8X
THE D-CODE OF 13-W8X CONSISTS OF FIGURE NUMBERS ① THROUGH ⑥.

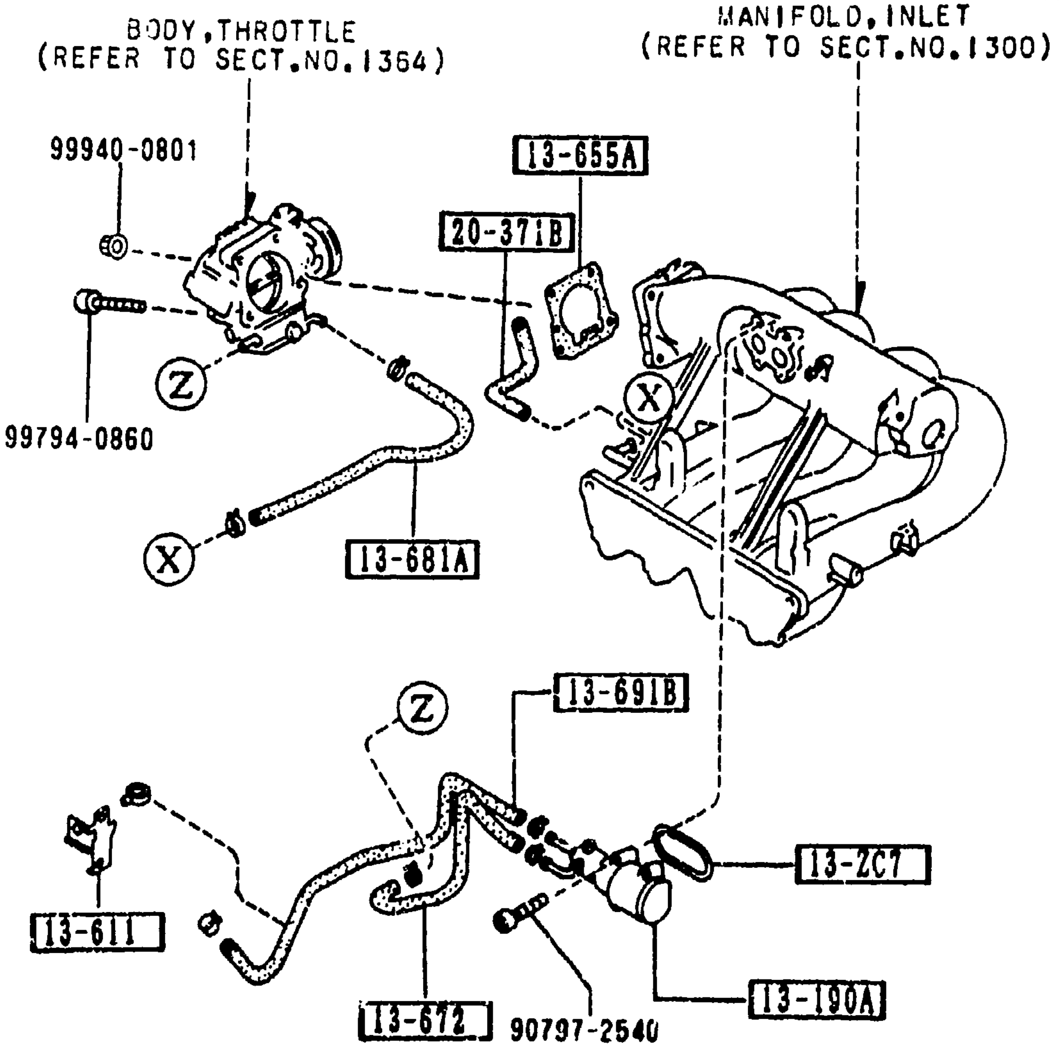
1364 -1 M THROTTLE BODY

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-W75		SCREW SET,IDLE ADJUST··THR			
B551-13-W75A	1				
13-W8X		SCREW & WASHER SET			
B551-13-W8X	1				
13-W80		BRACKET SET,DASH POT-THRO			
B61P-13-W80	1				
13-W89		GASKET,THERMO			
B551-13-W89	1				
13-104H		CAP,BLIND			
B551-13-104	1				
13-650E		BODY,THROTTLE			
B61P-13-640B	1	(MT)			
B64J-13-640	1	(AT)			
18-9101		SENSOR,THROTTLE			
B6S8-18-911	1	(AT)			
B630-18-911	1	(MT)			
20-660		VALVE,BY-PASS AIR CONTROL			
B61P-20-660	1				

1370 EMISSION CONTROL SYSTEM (INLET SIDE)



93-5104		99351-04999	D=4MM



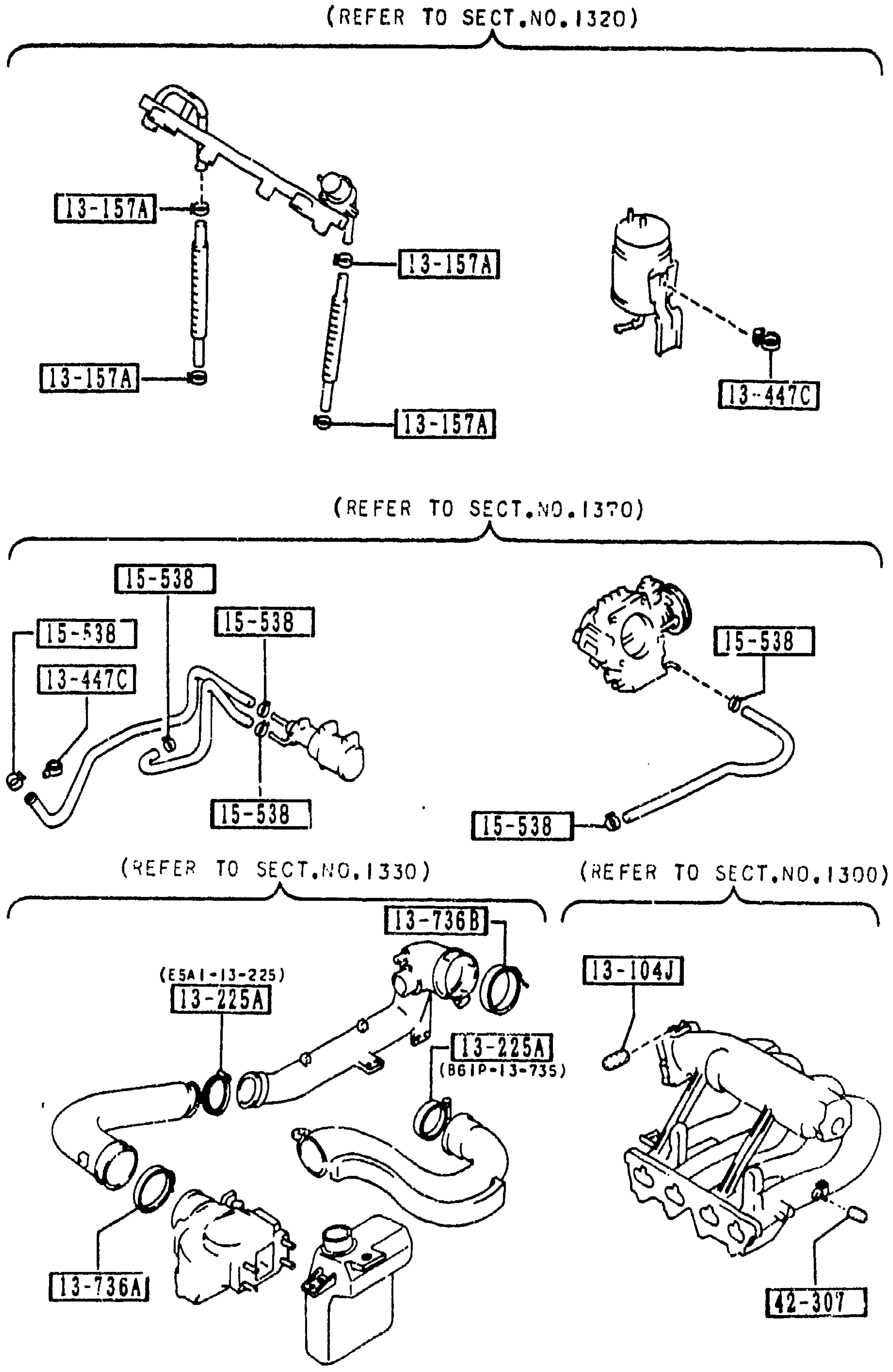
BODY,THROTTLE
(REFER TO SECT.NO.1364)
MANIFOLD,INLET
(REFER TO SECT.NO.1300)
99940-0801
13-655A
20-371B
Z
99794-0860
X
X
13-681A
Z
13-691B
13-ZC7
13-611
13-672
90797-2540
13-190A

* NOTES : REFER TO SECT.NO.1399 AS FOR HOSE CLIPS.

1370 -1 * EMISSION CONTROL SYSTEM (INLET SIDE)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-ZC7		RING,'O'-AIR VALVE			
B6S7-13-ZC7	1				
13-190A		VALVE,AIR			
B61P-13-190A	1	(MT)			
B64J-13-190	1	(AT)			
13-611		BRACKET			
B61P-13-685A	1				
13-655A		GASKET			
B6S7-13-655	1	NON ASBESTOS			
13-672		HOSE,WATER			
B61P-13-682A	1				
13-681A		HOSE,WATER			
B61P-13-681B	1				
13-691B		HOSE,WATER			
B61P-13-691A	1				
20-371B		TUBE,VACUUM			
B61P-20-371	1				
93-5104		HOSE			
99351-04999	1				

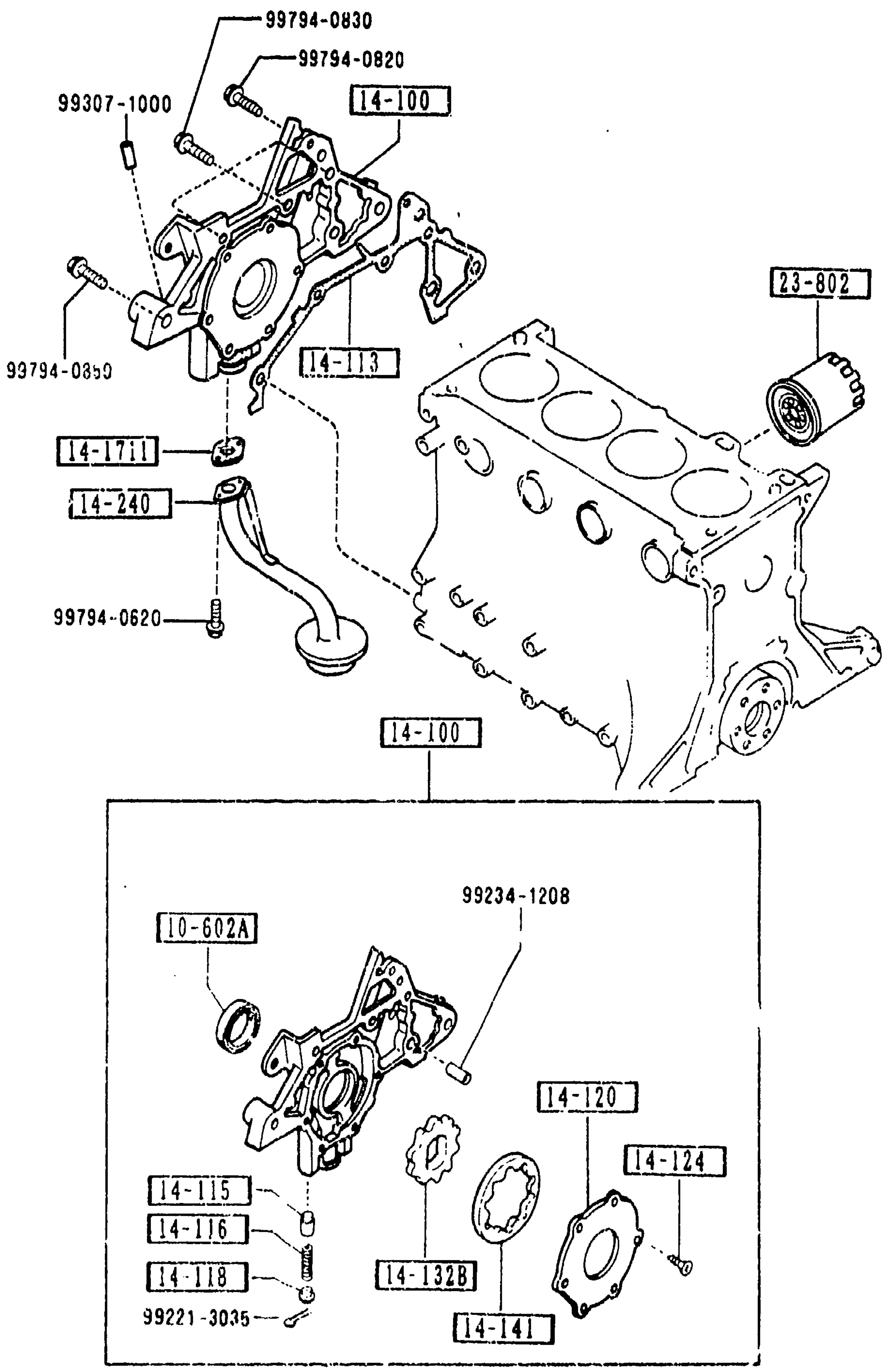
1399 CAP & HOSE CLIP (INLET & EXHAUST SIDE)


(REFER TO SECT.NO.1320)
13-157A
13-157A
13-157A
13-157A
13-447C
(REFER TO SECT.NO.1370)
15-538
15-538
15-538
13-447C
15-538
15-538
15-538
(REFER TO SECT.NO.1330)
(REFER TO SECT.NO.1300)
13-736B
(E5A1-13-225)
13-225A
13-225A
(B61P-13-735)
13-104J
13-736A
42-307

1399 -1 * CAP & HOSE CLIP (INLET & EXHAUST SIDE)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-104J		CAP,BLIND			
1010-13-104	1				
13-157A		CLIP			
8574-13-157	4				
13-225A		CLAMP,HOSE			
E5A1-13-225	1				
B61P-13-735	1				
13-447C		CLAMP,HOSE			
B61P-13-447	2				
13-736A		CLAMP,HOSE-A.I.P./A. CLNR			
B630-13-736	1				
13-736B		CLAMP,HOSE			
F249-13-736	1				
15-538		CLAMP,WATER HOSE			
JF02-15-538	6				
42-307		CAP			
0223-42-307	1	(MT)			

1400 OIL PUMP & FILTER


99794-0830
99794-0820
99307-1000
14-100
99794-0850
14-113
23-802
14-1711
14-240
99794-0620
14-100
99234-1208
10-602A
14-120
14-124
14-115
14-116
14-118
14-132B
14-141
99221-3035

1400 -1 M OIL PUMP & FILTER

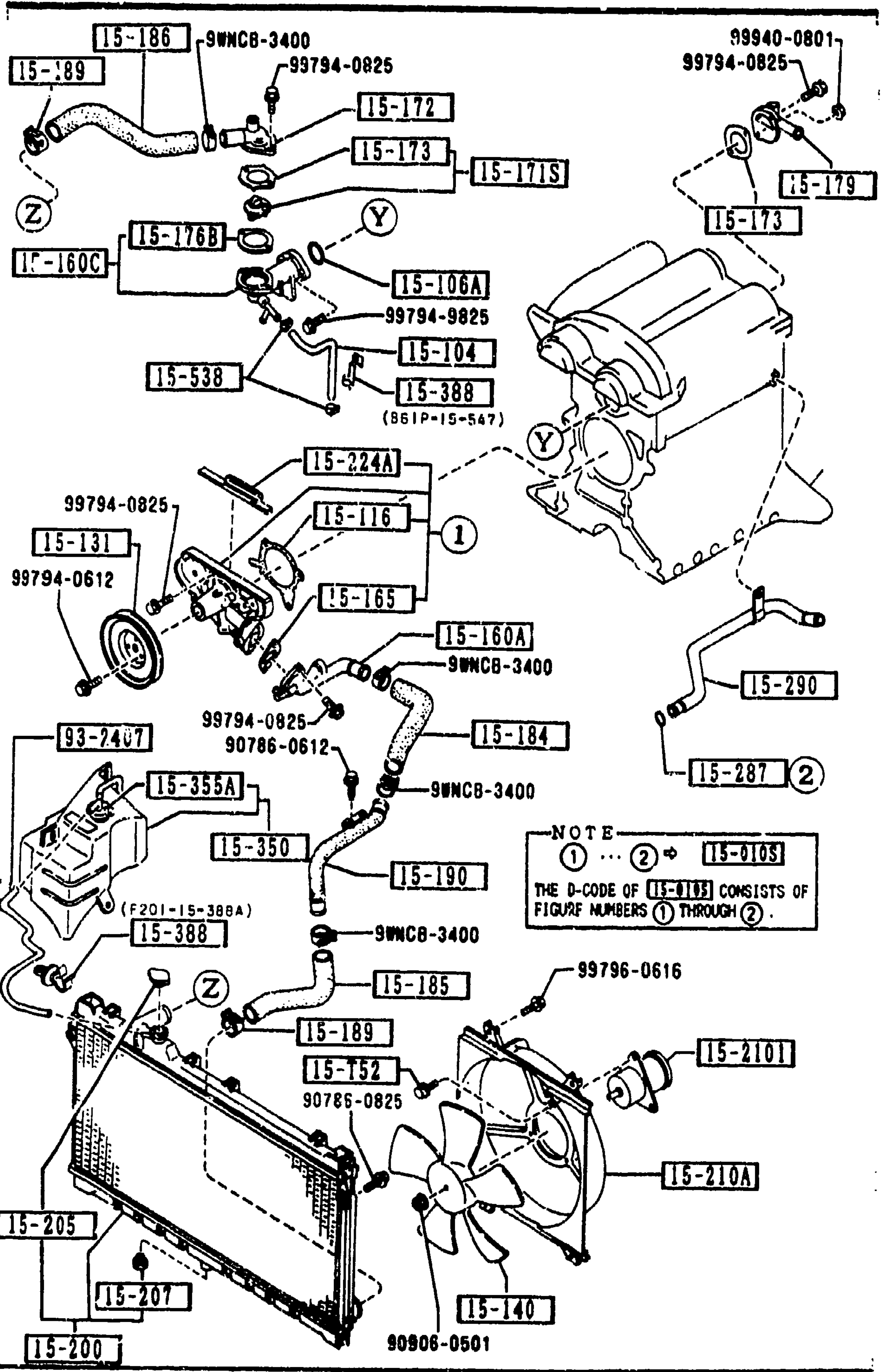
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-602A B630-10-602	1	SEAL,OIL			
14-100 B630-14-100E	1	PUMP,OIL			
14-113 B630-14-113	1	GASKET,OIL PUMP ASBESTOS			
14-115 0221-14-115	1	PLUNGER,CONTROL			
14-116 0324-14-116A	1	SPRING,PRESSURE			
14-118 0222-14-118	1	SHEET,SPRING			
14-120 B630-14-121	1	COVER,OIL PUMP			
14-124 FE1H-14-124	6	SCREW,OIL PUMP COVER			
14-132B B660-14-132	1	GEAR,INNER			
14-141 B660-14-141	1	GEAR,OUTER			
14-1711 0810-14-171A	1	GASKET,OIL STRAINER ASBESTOS			
14-240 B61P-14-240	1	STRAINER,OIL			
23-802 B6Y1-14-302	1	CARTRIDGE,OIL FILTER			

SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-I03	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON,CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-I04	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET,PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-I08	1930	CLUTCHES & PLANETARY GEARS (AUTOMATIC)						
1-D09	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMATIC)						
1-I09	1960	GASKET & SEAL KIT (AUTOMATIC)						

CATLOG-NO= AUNA01-07

DATE. 1992-02


15-186
9WNCB-3400
15-189
99794-0825
15-172
15-173
15-171S
Z
15-176B
15-160C
Y
15-106A
99794-9825
15-104
15-538
15-388
(B61P-15-547)
99940-0801
99794-0825
15-179
15-173
Y
15-224A
99794-0825
15-116
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15-131
99794-0612
15-165
15-160A
9WNCB-3400
99794-0825
15-184
90786-0612
93-2407
15-355A
9WNCB-3400
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15-287
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15-190
(F201-15-388A)
15-388
9WNCB-3400
15-185
Z
15-189
99796-0616
15-T52
15-2101
90786-0825
15-210A
15-205
15-207
15-140
15-200
90906-0501

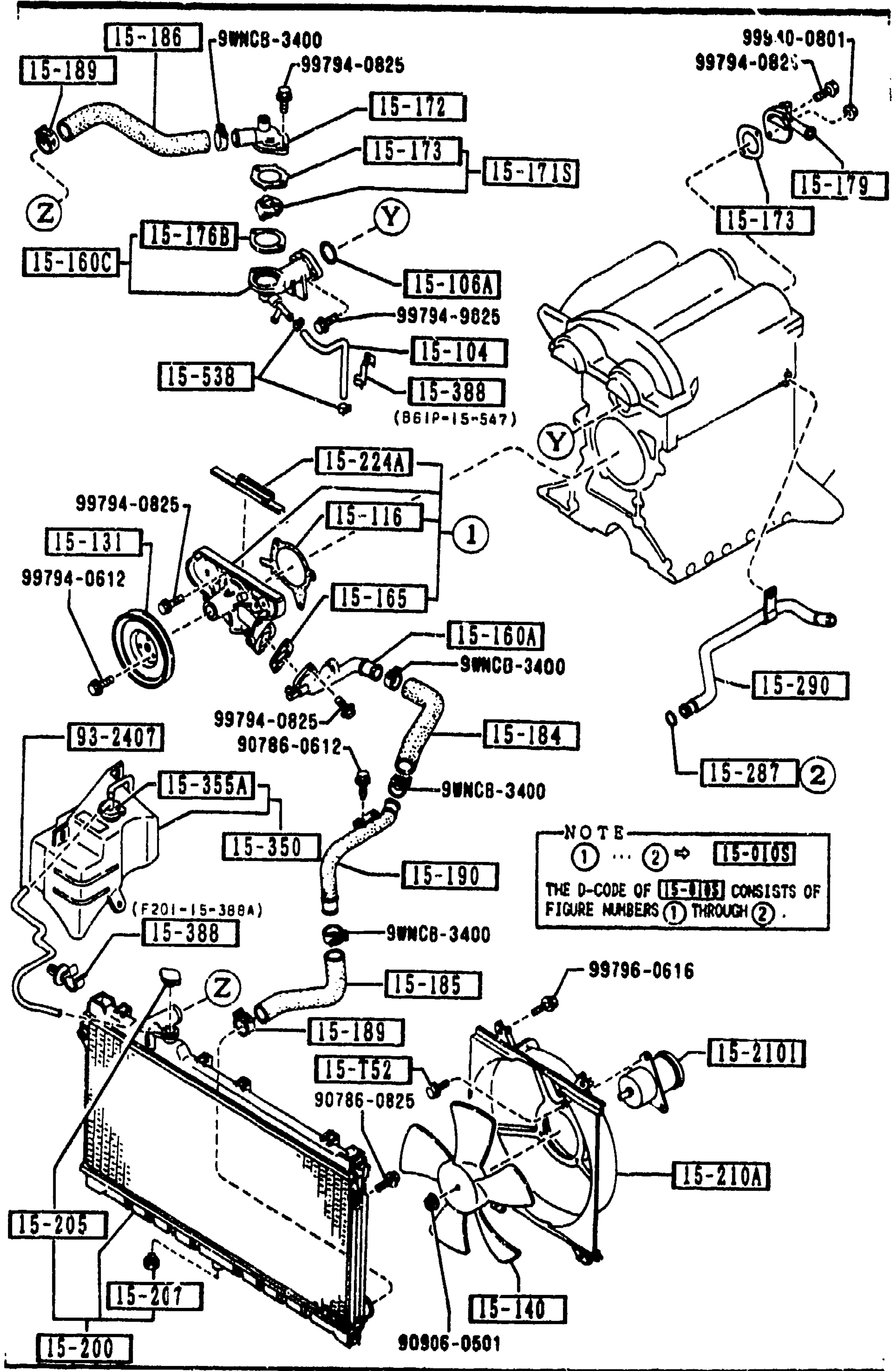
NOTE ① ··· ② ⇨ 15-010S

THE D-CODE OF 15-010S CONSISTS OF FIGURE NUMBERS ① THROUGH ②.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-T52		SCREW,MOTOR-ELECTRIC FAN			
B6S8-15-T52	3				
15-010S		PUMP SET,WATER			
8AB8-15-010	1	NON ASBESTOS			
15-104		HOSE,WATER BY-PASS			
B61P-15-261A	1				
15-106A		RING,'O'-WATER PUMP			
B61P-15-106	1				
15-116		GASKET,WATER PUMP			
B621-15-116A	1	NON ASBESTOS			
15-131		PULLEY,WATER PUMP			
B366-15-131 AN(B366-15-131A)	1				-9901
B366-15-131A	1				9901-
15-140		FAN,COOLING			
B6S8-15-140A	1	CALSONIC (AT)			
B61P-15-140	1	(MT)			
15-160A		INLET,WATER PUMP			
B61P-15-160	1				
15-160C		PIPE,WATER PUMP			
B61P-15-170A A (B61P-15-170B)	1				-9401
B61P-15-170B	1				9401-
15-165		GASKET,W.PUMP INLET			
B621-15-165	1	NON ASBESTOS			
15-171S		THERMOSTAT SET			
8AN1-15-171	1	NON ASBESTOS			

9401 NA35**-100090
9901 NA35**-119257

1500 COOLING SYSTEM


15-186
9WNCB-3400
15-189
99794-0825
15-172
15-173
15-171S
Z
15-176B
Y
15-160C
15-106A
99794-9825
15-104
15-538
15-388
(B61P-15-547)
99940-0801
99794-0825
15-179
15-173
Y
15-224A
15-116
1
99794-0825
15-131
99794-0612
15-165
15-160A
9WNCB-3400
99794-0825
90786-0612
15-184
9WNCB-3400
93-2407
15-355A
15-350
15-190
(F201-15-388A)
15-388
9WNCB-3400
15-185
Z
15-189
15-T52
90786-0825
99796-0616
15-2101
15-210A
15-205
15-207
15-200
15-140
90906-0501
15-290
15-287
2

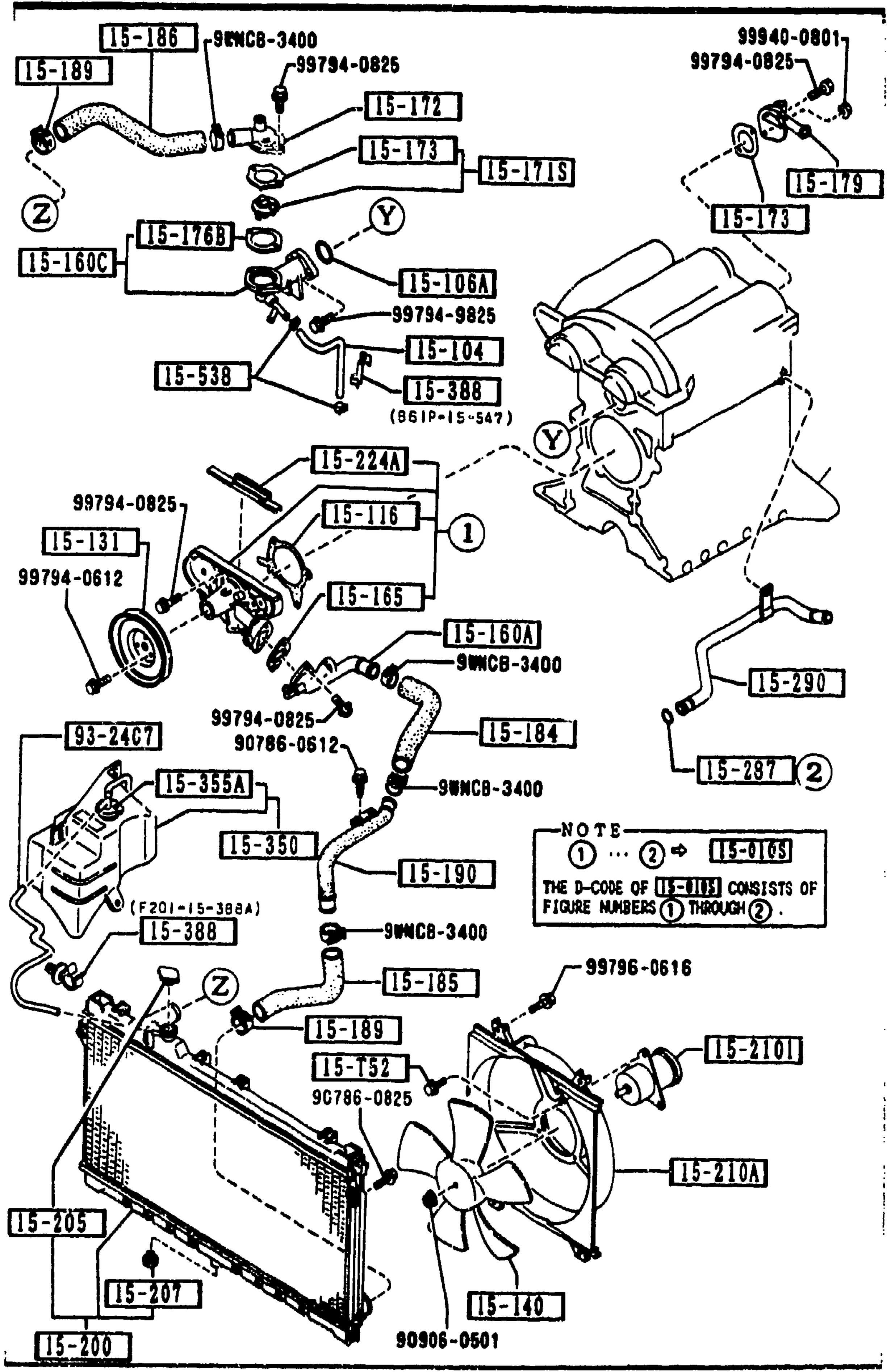
NOTE
① ··· ② ⇨ 15-010S
THE D-CODE OF 15-010S CONSISTS OF FIGURE NUMBERS ① THROUGH ②.

1500 -2 COOLING SYSTEM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-172		COVER,THERMOSTAT			
B61P-15-172	1				
15-173		GASKET,THERMOSTAT COVER			
B621-15-173	2	NON ASBESTOS			
15-176B		CASE,THERMOSTAT			
B61P-15-176A A (B61P-15-176B)	1				-9401
B61P-15-176B	1				9401-
15-179		OUTLET,WATER			
B61P-15-179 A (B61P-15-179A)	1				-9415
B61P-15-179A	1				9415-
15-184		HOSE,WATER			
B61P-15-184	1				
15-185		HOSE,WATER			
B61P-15-185	1				
15-186		HOSE,WATER			
B61P-15-186	1				
15-189		CLAMP,HOSE			
B366-15-182	2				
15-190		PIPE,WA			
B61P-15-190	1				
15-200		RADIATOR			
B61P-15-200	1	CALSONIC (MT)			
B64J-15-200A	1	CALSONIC (AT)			
15-205		CAP,RADIATOR			
D316-15-205	1	CALSONIC			

9401 NA35**-100090
9415 NA35**-100712

1500 COOLING SYSTEM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15-189
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15-173
15-171S
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15-176B
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15-106A
99794-9825
15-104
15-538
15-388
(B61P-15-547)
99940-0801
99794-0825
15-179
15-173
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99794-0825
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99794-0612
15-165
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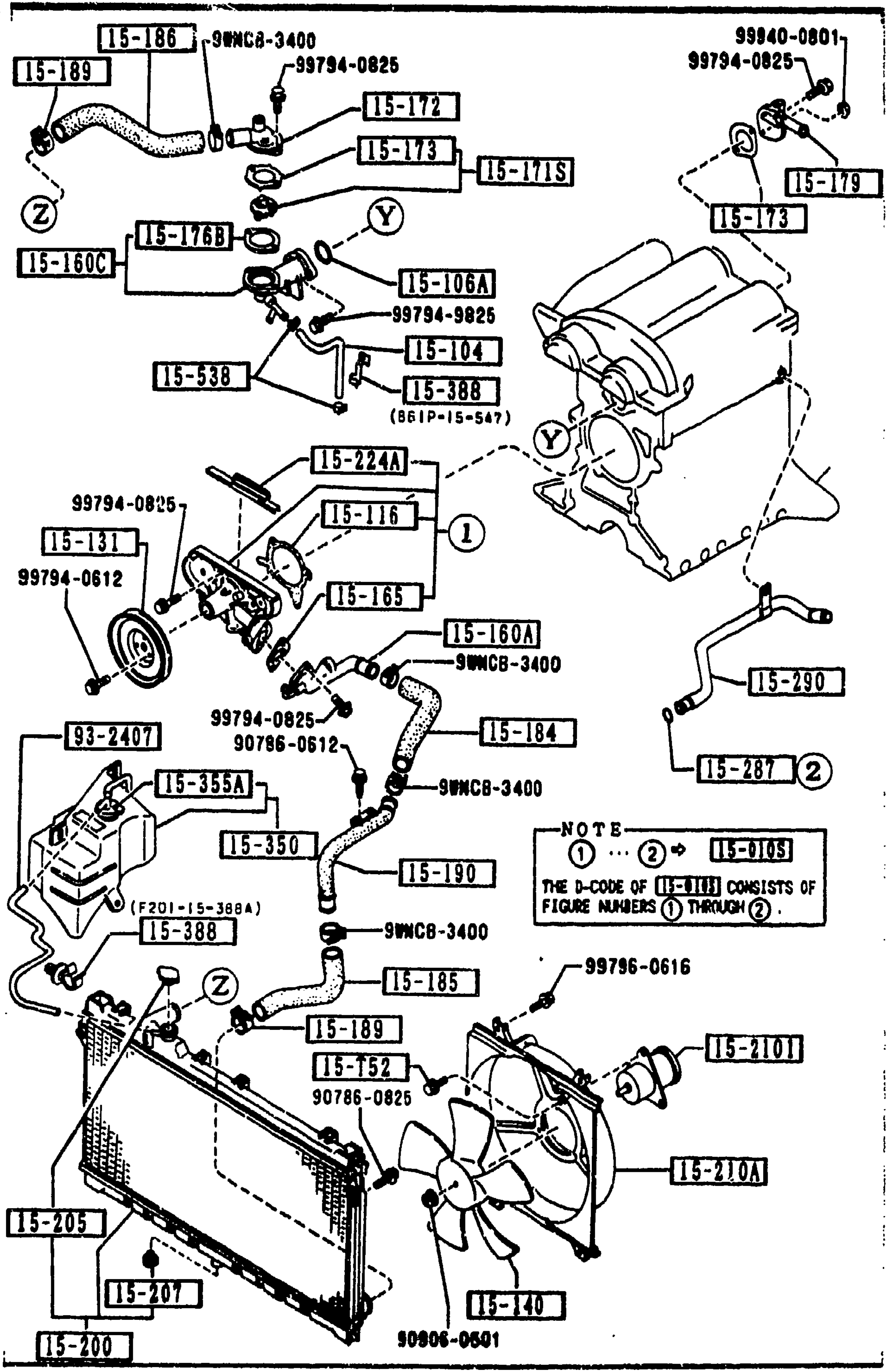
9WNCB-3400
15-184
99794-0825
90786-0612
9WNCB-3400
93-24C7
15-355A
15-350
15-190
(F201-15-388A)
15-388
9WNCB-3400
15-290
15-287
2
99796-0616
Z
15-185
15-189
15-T52
90786-0825
15-2101
15-210A
15-205
15-207
15-140
15-200
90906-0501

NOTE
① ··· ② ⇒ 15-010S
THE D-CODE OF 15-010S CONSISTS OF FIGURE NUMBERS ① THROUGH ②.

1500 -3 COOLING SYSTEM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-207		COCK,DRAIN			
N326-15-203	1				
15-210A		COWLING,RADIATOR			
B61P-15-210A	1				
15-2101		FAN DRIVE			
B61P-15-150A	1	(MT)			
B64J-15-150	1	(AT)			
15-224A		RUBBER,SEAL			
B660-10-543B	1				
15-287		RING,'O'-WATER BY-PASS			
E301-15-287	1				
15-290		PIPE,BY PASS			
B61P-15-290 AN(B61P-15-290A)	1				-9A01
B61P-15-290A AN(B61P-15-290B)	1				9A01-0301
B61P-15-290B	1				0301-
15-350		TANK,SUB-RADIATOR			
B61P-15-350A A (B61P-15-350B)	1				-9419
B61P-15-350B AN(B61P-15-350C)	1				9419-9901
B61P-15-350C	1				9901-
15-355A		CAP,SUB TANK			
B61P-15-355 AN(B61P-15-355A)	1				-9901
B61P-1[illegible]55A	1				9901-
15-388		CLIP,HOSE-SUB T.& WATER H			
B61P-15-547	1				
F201-15-388 A (F201-15-388A)	1				-9401
F201-15-388A	1				9401-

9401 NA35**-100090
9419 NA35**-101038
9901 NA35**-119257
9A01 NA35**-122908
0301 NA35**-141901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99794-0825
15-189
15-172
15-173
15-171S
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Y
15-176B
15-160C
15-106A
99794-9825
15-104
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99794-0825
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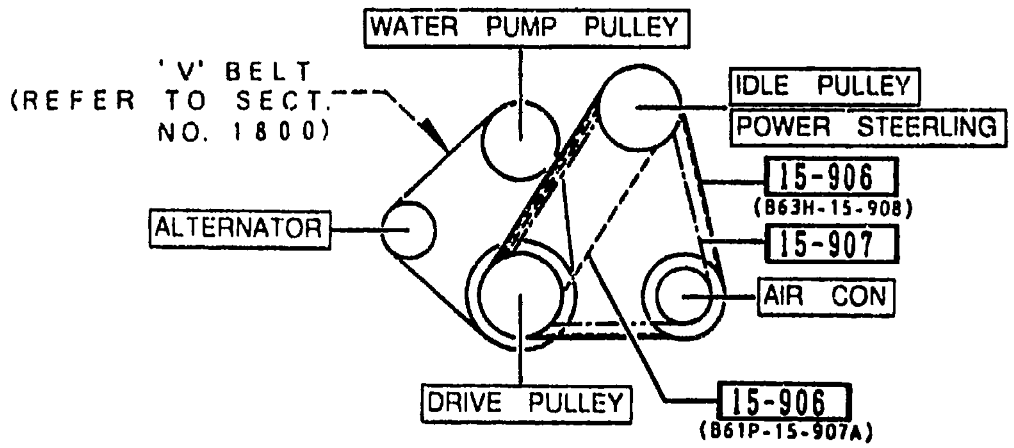
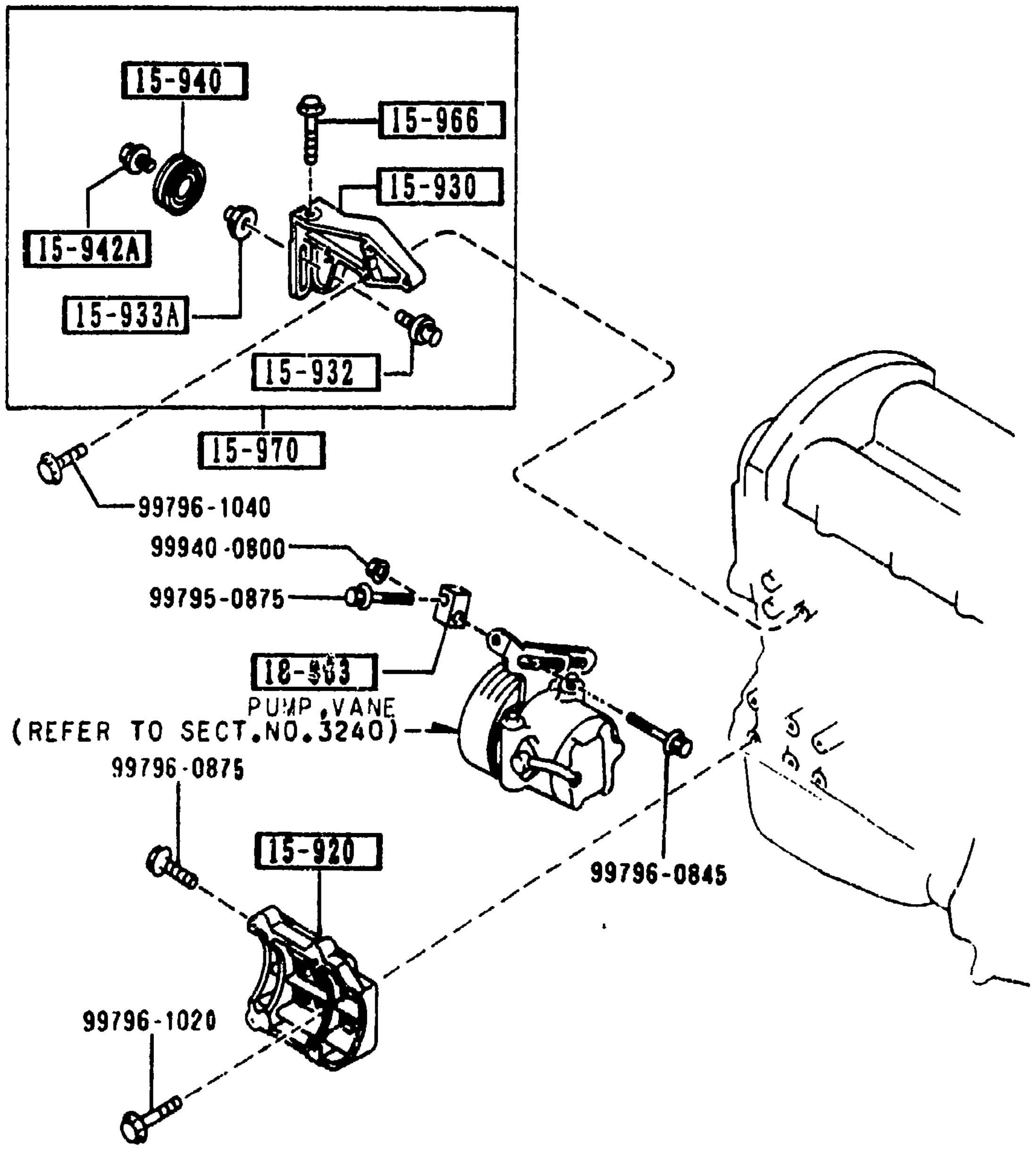
9WNC8-3400
15-185
Z
15-189
15-T52
90786-0825
99796-0616
15-210I
15-210A
15-205
15-207
15-200
15-140
90906-0601
15-290
15-287
2
Y

NOTE
① ··· ② ⇒ 15-010S
THE D-CODE OF 15-010S CONSISTS OF FIGURE NUMBERS ① THROUGH ②.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-538		CLAMP,WATER HOSE			
JF02-15-538	2				
93-2407		HOSE,WATER			
99324-07630	1				-9419
99324-07610	1				9419-

9419 NA35MM-101038

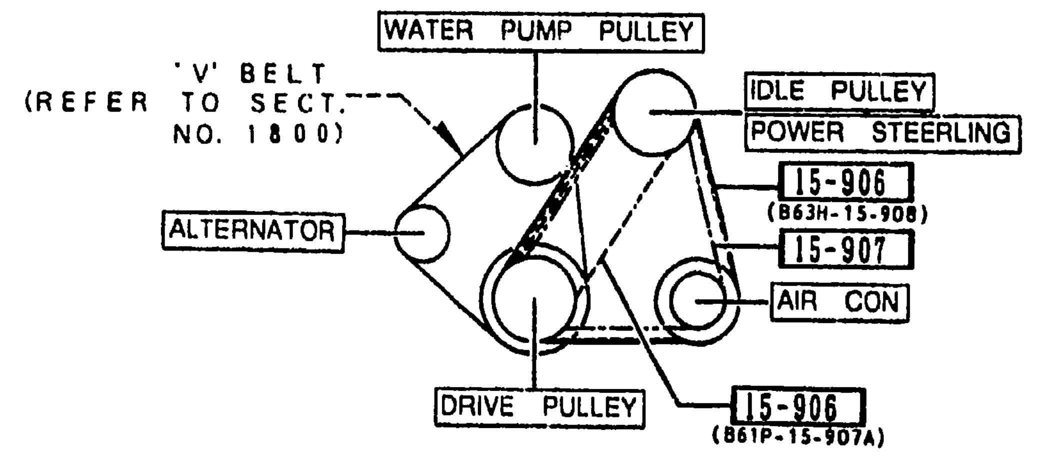

WATER PUMP PULLEY
'V' BELT (REFER TO SECT. NO. 1800)
IDLE PULLEY
POWER STEERLING
ALTERNATOR
15-906
(B63H-15-908)
15-907
AIR CON
DRIVE PULLEY
15-906
(B61P-15-907A)

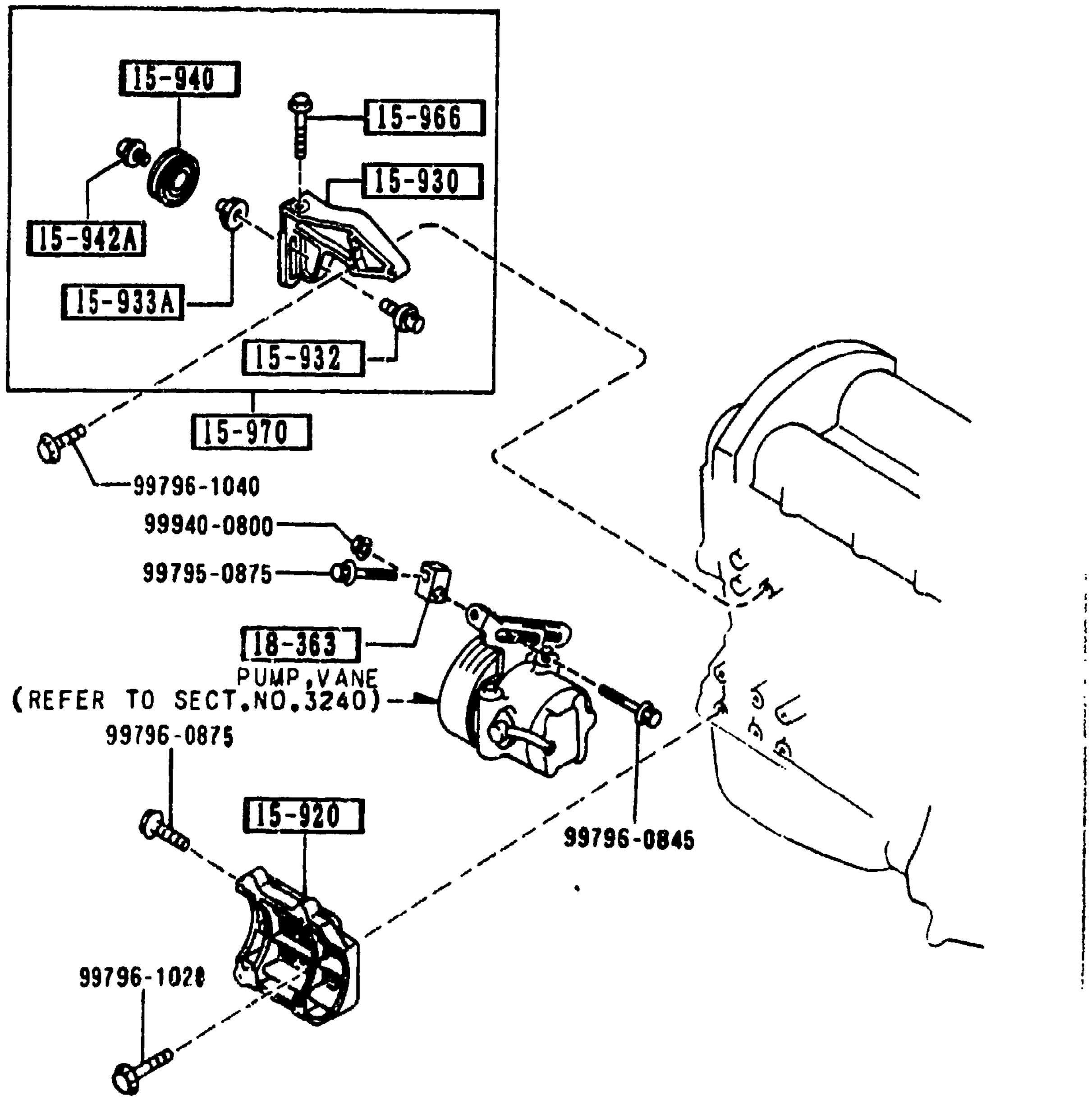

15-940
15-966
15-930
15-942A
15-933A
15-932
15-970
99796-1040
99940-0800
99795-0875
18-363
PUMP,VANE
(REFER TO SECT.NO.3240)
99796-0875
15-920
99796-0845
99796-1020

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-906		BELT'V'			
B63H-15-908	1	L=953 4PK RIB.V			
B61P-15-907 AN(B61P-15-907A)	1	L=865 4PK RIB.BELT			-9626
B61P-15-907A	1	L=855 4PK RIB.BELT (W/P.S.)			9626-
15-907		BELT'V'			
B63H-15-909	1	L=855 4PK RIB.V			
15-920		BRACKET,COMPRESSOR			
B61P-15-810A	1	(A)			
15-930		BRACKET,IDLE PULLEY			
BP01-15-951	1	(A)			
15-932		SHAFT,PULLEY			
B631-15-932	1	(A)			
15-933A		COLLAR			
BP01-15-933	1	(A)			
15-940		PULLEY,IDLE			
BP01-15-940	1	(A)			
15-942A		COLLAR			
E564-15-942	1	(A)			
15-966		BOLT,ADJUST			
E564-15-934	1	(A)			
15-970		PULLEY,IDLE			
BP01-15-930	1	(A)			
18-363		SPACER,STRAP			

9626 NA35**-111021

1580 BRACKET,PULLEY & BELT


WATER PUMP PULLEY
'V' BELT (REFER TO SECT. NO. 1800)
IDLE PULLEY
POWER STEERLING
15-906
(B63H-15-908)
ALTERNATOR
15-907
AIR CON
DRIVE PULLEY
15-906
(B61P-15-907A)


15-940
15-966
15-930
15-942A
15-933A
15-932
15-970
99796-1040
99940-0800
99795-0875
18-363
PUMP,VANE
(REFER TO SECT.NO.3240)
99796-0875
15-920
99796-0845
99796-1028

1580 -2 M BRACKET,PULLEY & BELT

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D F201-18-363	1	(W/P.S.)			

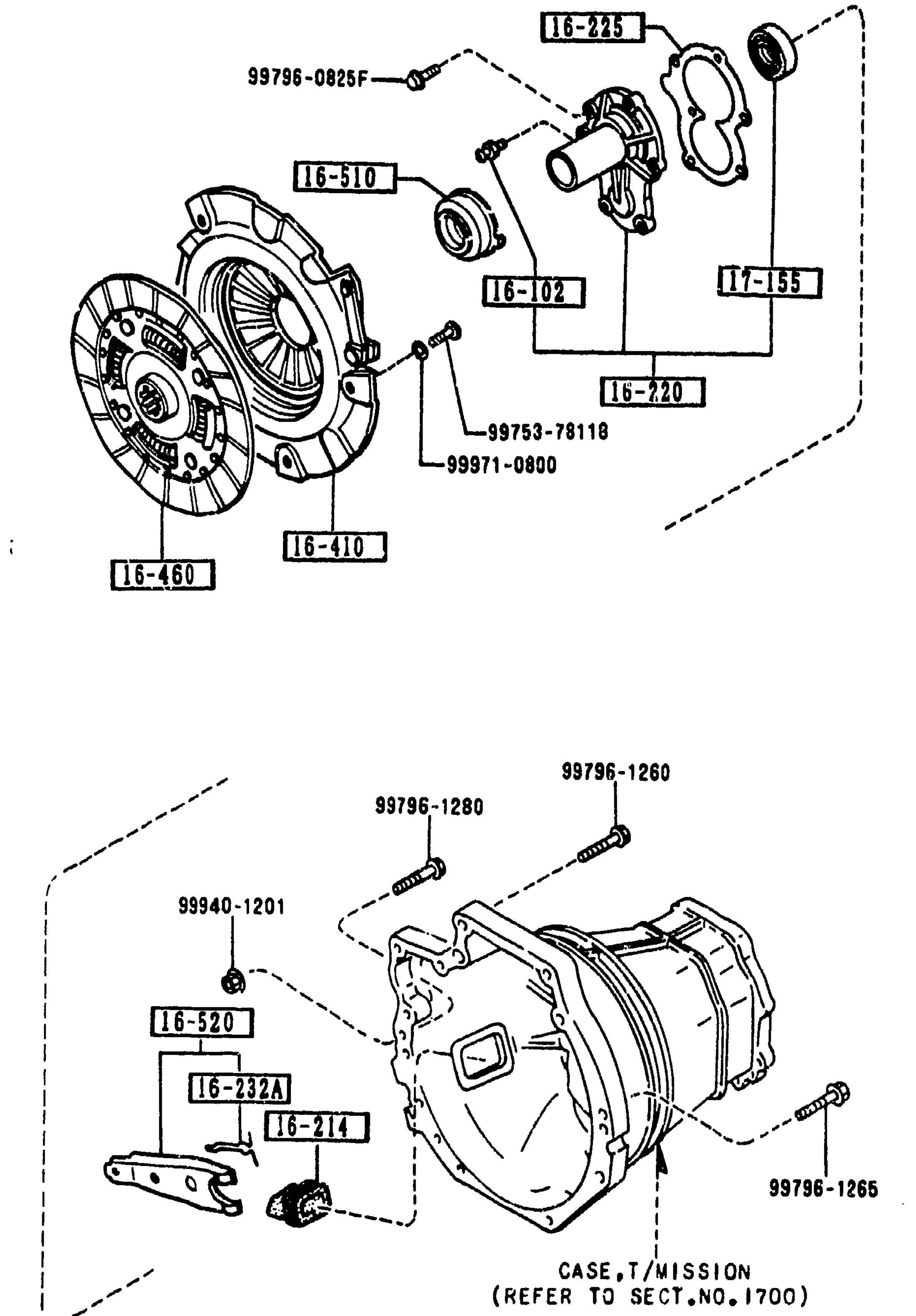
CAT. AUNA01-07

1992-02

SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-I03	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON,CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-I04	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET,PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-I08	1930	CLUTCHES & PLANETARY GEARS (AUTOMATIC)						
1-D09	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMATIC)						
1-I09	1960	GASKET & SEAL KIT (AUTOMATIC)						

1600 CLUTCH DISC & COVER (MANUAL)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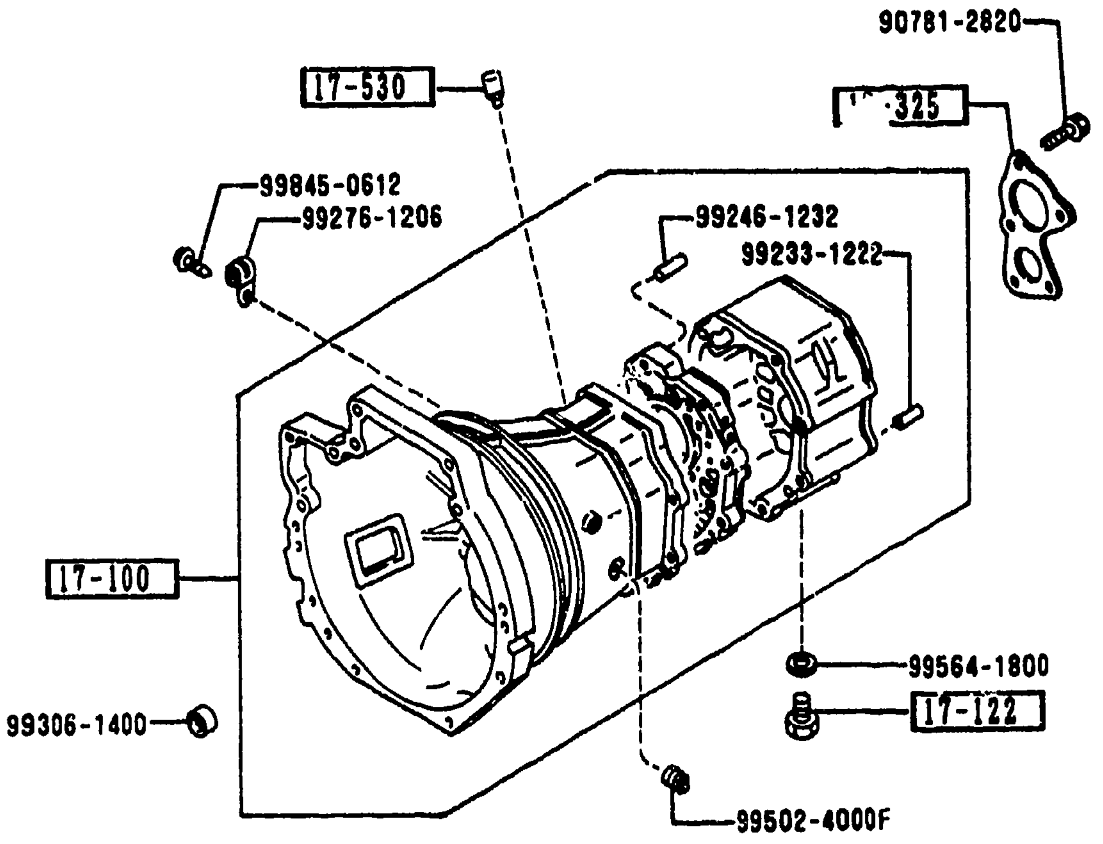
99796-1280
99940-1201
16-520
16-232A
16-214
99796-1265
CASE,T/MISSION
(REFER TO SECT.NO.1700)

1600 -1 * CLUTCH DISC & COVER (MANUAL)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
16-102 0603-16-102B	1	PIN,PIVOT-CLUTCH REL.FORK			
16-214 FE86-16-214	1	COVER,DUST-CLUTCH FORK			
16-220 B622-16-220	1	COVER,FRONT CLUTCH			
16-225 FE50-16-225A	1	GASKET,FRONT COVER			
16-232A 1416-16-232A	1	SUPPORTER,FORK			
16-410 B622-16-410	1	COVER,CLUTCH			
16-460 B622-16-460 A (B622-16-460A)	1	DISC,CLUTCH ASBESTOS			-9330
B622-16-460A	1	ASBESTOS			9330-
16-510 B622-16-510	1	COLLAR,CLUTCH REL.			
16-520 B622-16-520	1	FORK,CLUTCH RELEASE			
17-155 H501-17-103	1	SEAL,OIL			

9330 NA35**-100072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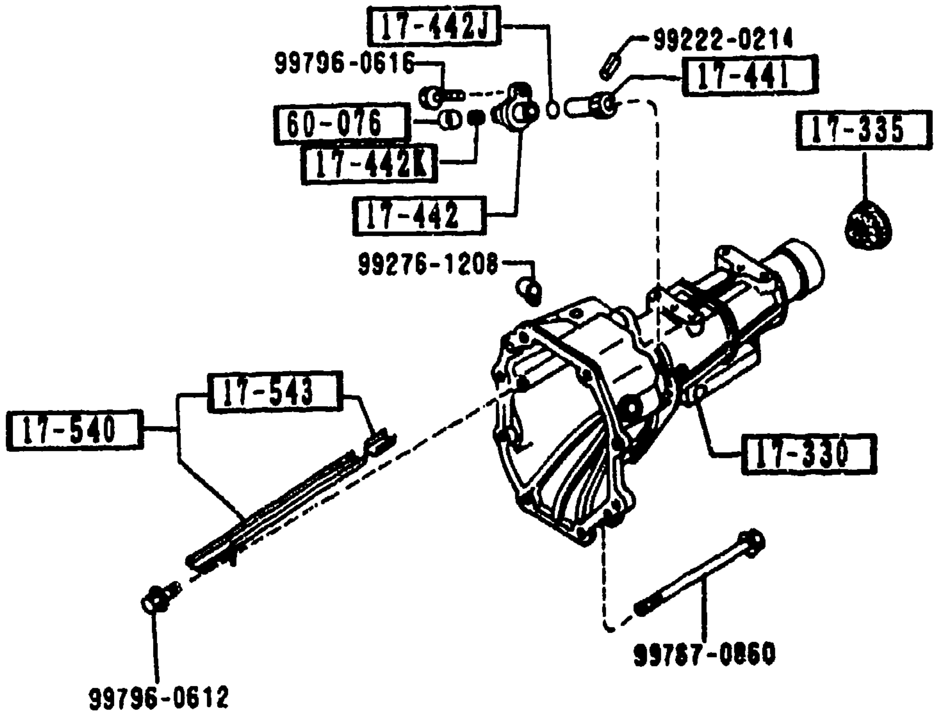
99502-4000F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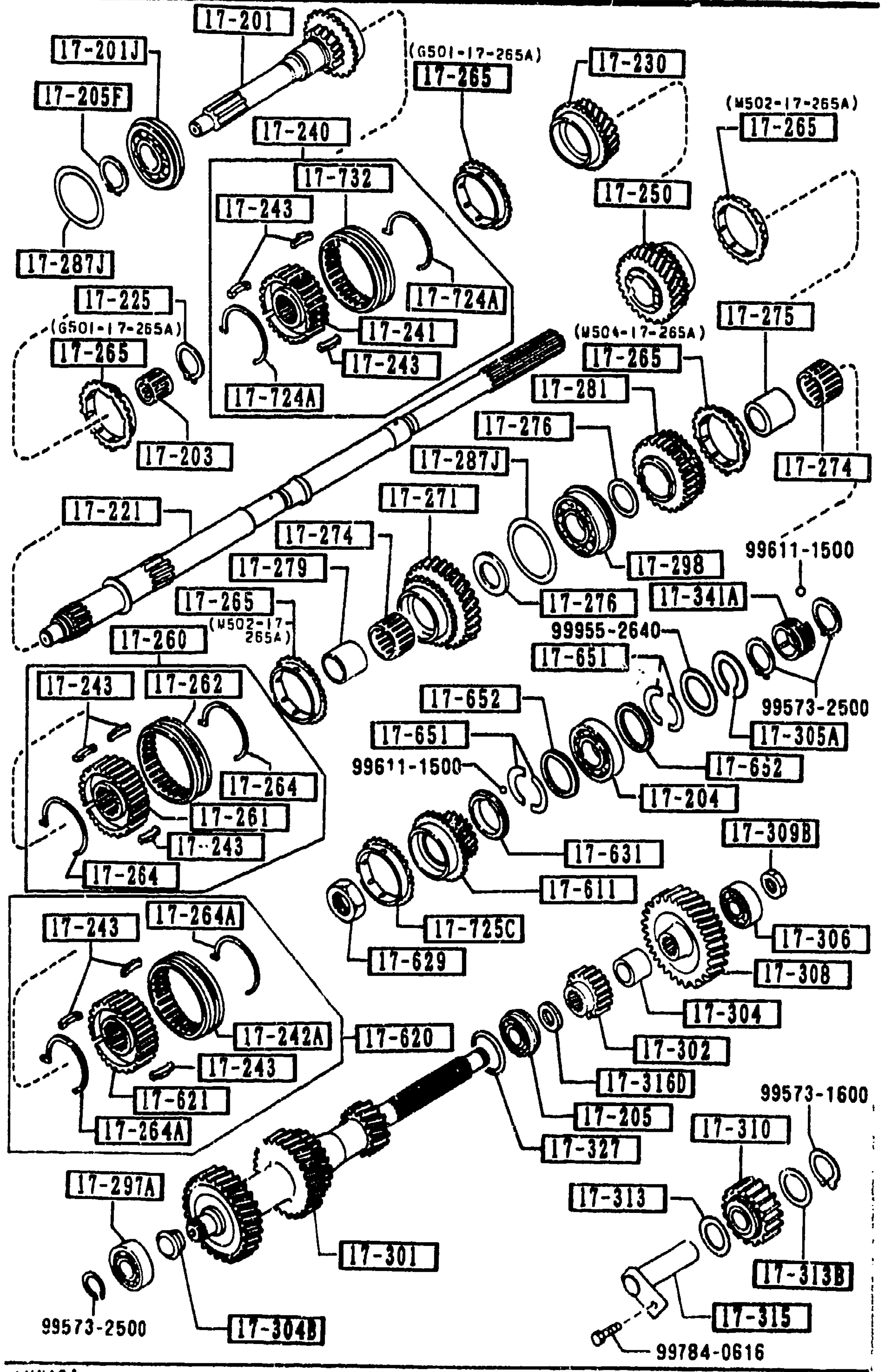
17-330
99787-0860
99796-0612

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-100 M526-17-100	1	CASE,T/MISSION			
17-122 0810-17-121	1	PLUG,MAGNET			
17-325 8086-17-326	1	COVER,BEARING			
17-330 M5Y1-17-330	1	HOUSING,EXTENSION			
17-335 M507-17-335	1	SEAL,OIL			
17-441 1472-17-441A	1	GEAR,DRIVEN N=23			
17-442 1669-17-442B	1	SLEEVE,SPEEDOMETER			
17-442J 1011-17-443	1	RING,'O'			
17-442K 99586-08166	1	SEAL,OIL			
17-530 0884-17-530	1	BREATHER,AIR-T/MISSION			
17-540 M509-17-540	1	PASS,OIL			
17-543 M501-17-543A	1	RUBBER,SEAL			
60-076 B092-60-076A	1	GASKET,GUIDE SEAL-SPEEDO.			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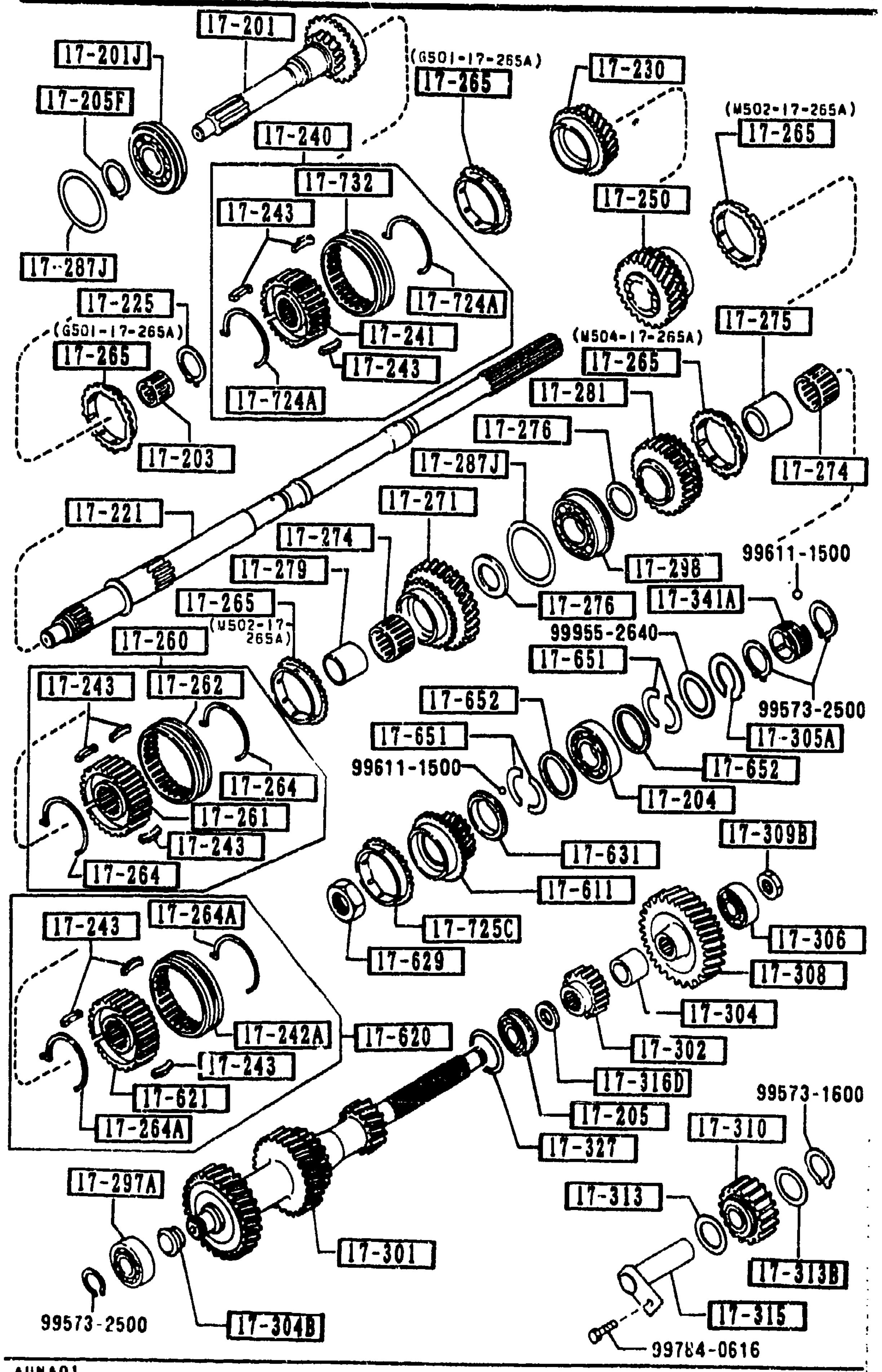
17-301
17-313B
17-315
99573-2500
17-304B
99784-0616

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-201 M516-17-201	1	GEAR,MAIN DRIVE			
17-201J M502-17-295C	1	BEARING,BALL-MAIN DRIVE GEAR			
17-203 M501-17-210	1	BEARING,NEEDLE			
17-204 M503-17-204	1	BEARING,BALL-MAIN SHAFT			
17-205 R502-17-306A	1	BEARING,ROLLER			
17-205F M501-17-205	1	RING,RETAINING			
17-221 M505-17-221B	1	SHAFT,MAIN			
17-225 0317-17-225	1	RING,SNAP			
17-230 M513-17-231	1	GEAR,3RD			
17-240 M502-17-240B A (M502-17-240C)	1	HUB SET,CLUTCH-3RD & 4TH			-9701
M502-17-240C	1				9701-
17-241 M501-17-241B	1	HUB,CLUTCH			
17-242A F401-17-242A	1	SLEEVE,CLUTCH HUB			
17-243 F401-17-243A	9	KEY,SYNCHRONIZER			

9701 NA35**-111969

1710 TRANSMISSION GEARS(MANUAL)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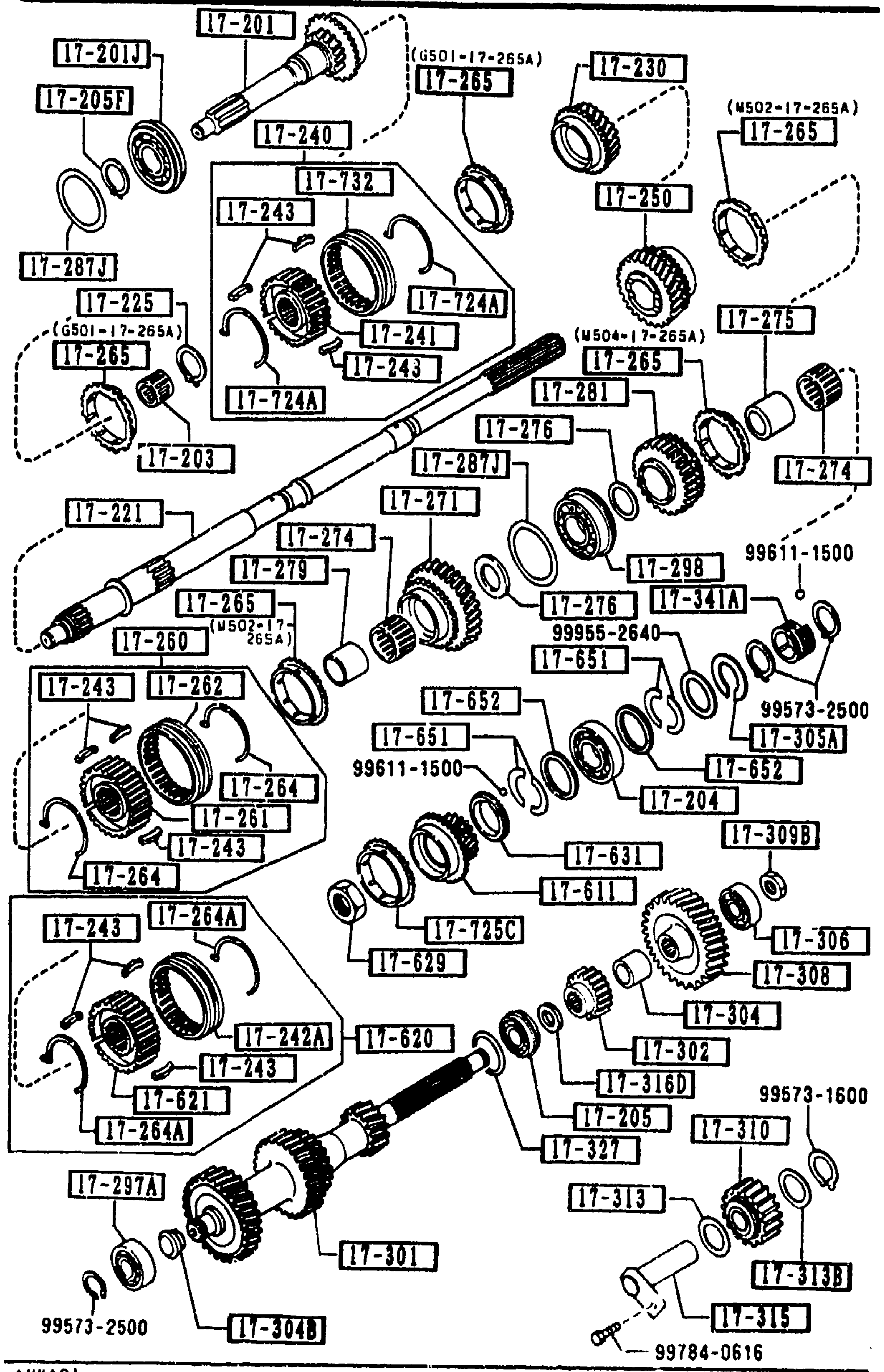
99784-0616

AUNA01

1710 -2 TRANSMISSION GEARS(MANUAL)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-250		GEAR,2ND			
M515-17-251	1				
17-260		HUB SET,CLUTCH-1ST & 2ND			
M505-17-260A	1				
17-261		HUB,CLUTCH			
M502-17-261	1				
17-262		SLEEVE,CLUTCH HUB			
M503-17-262	1				
17-264		SPRING,SYNCHRO. KEY			
G401-17-264	2				
17-264A		SPRING,SYNCRONIZER			
F401-17-264A	2				
17-265		RING,SYNCHRONIZER			
G501-17-265A	2				
M502-17-265A	2				
M504-17-265 A (M504-17-265A)	1				-0101
M504-17-265A	1				0101-
17-271		GEAR,1ST			
M516-17-271	1				
17-274		BEARING,NEEDLE			
4069-17-283A	2				
17-275		RACE,INNER			
4069-17-284E	1				
17-276		WASHER,THRUST			
0259-17-274A	2	T=3MM			
0259-17-276	2	T=2.2MM			
0259-17-277	2	T=2.7MM			

0101 NA35MM-133591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17-724A
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17-225
(G501-17-265A)
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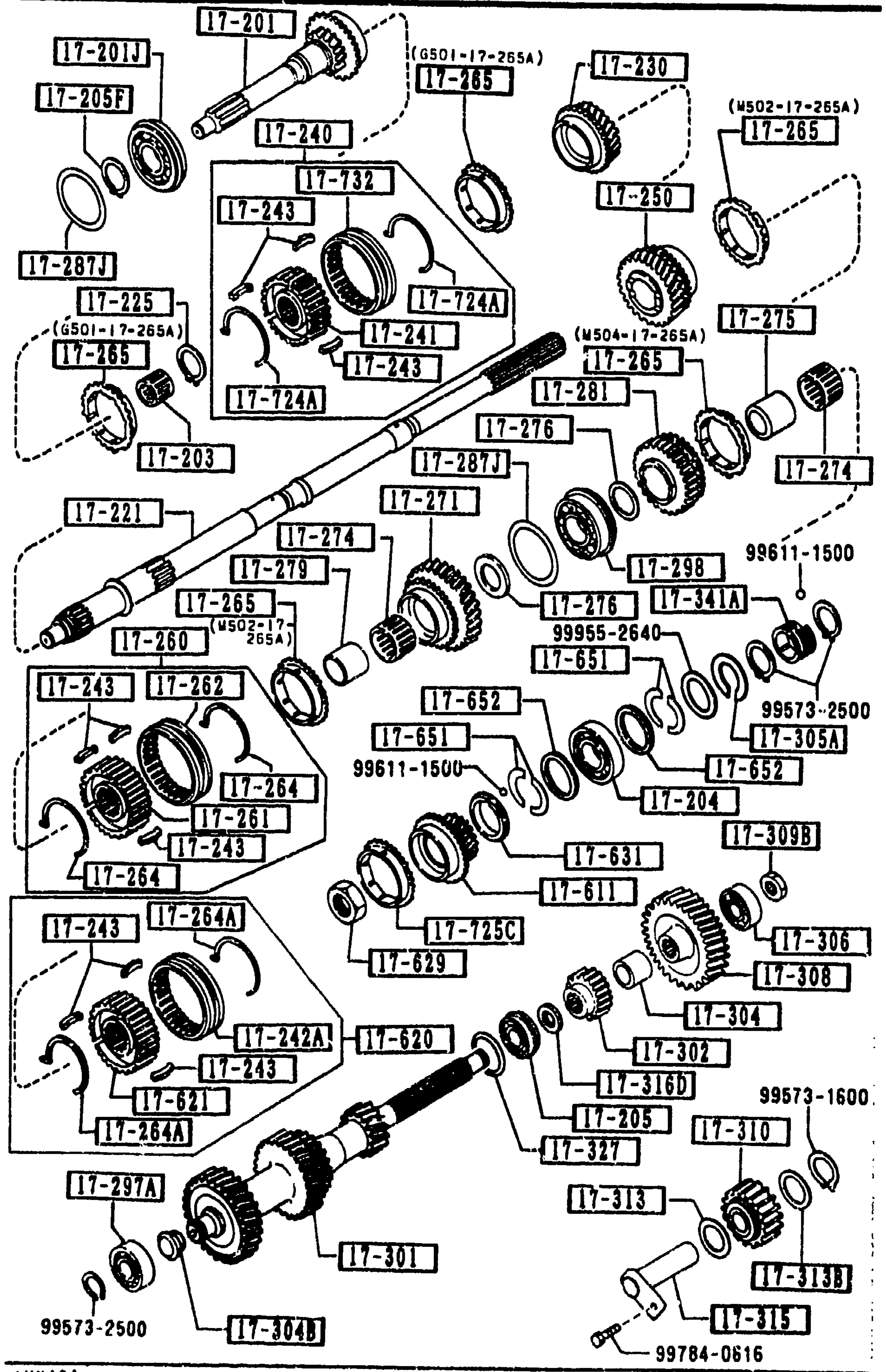
99573-2500
17-304B
99784-0616

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D 0259-17-278	2	T=3.2MM			
0259-17-279	2	T=3.7MM			
17-279		SLEEVE,GEAR			
8540-17-275A	1				
17-281		GEAR,REVERSE			
M509-17-281 A (M509-17-281A)	1				-9801
M509-17-281A	1				9801-
17-287J		SHIM,ADJUST			
99963-6310	2	T=0.1MM			
99963-6315	1	T=0.15MM			
99963-6330	2	T=0.3MM			
17-297A		BEARING,BALL-COUNTER SHAFT G.			
M502-17-297A	1				
17-298		BEARING			
M502-17-298A	1				
17-301		GEAR,COUNTER SHAFT			
M528-17-301	1				
17-302		GEAR,COUNTER REVERSE			
M512-17-302 A (M512-17-302A)	1				-9801
M512-17-302A	1				9801-
17-304		SPACER			
M504-17-304	1				
17-304B		SPACER			
M501-17-304B	1				
17-305A		RING,RETAINING-BALL BEARING			
0839-17-305B	1				

9801 NA35**-116316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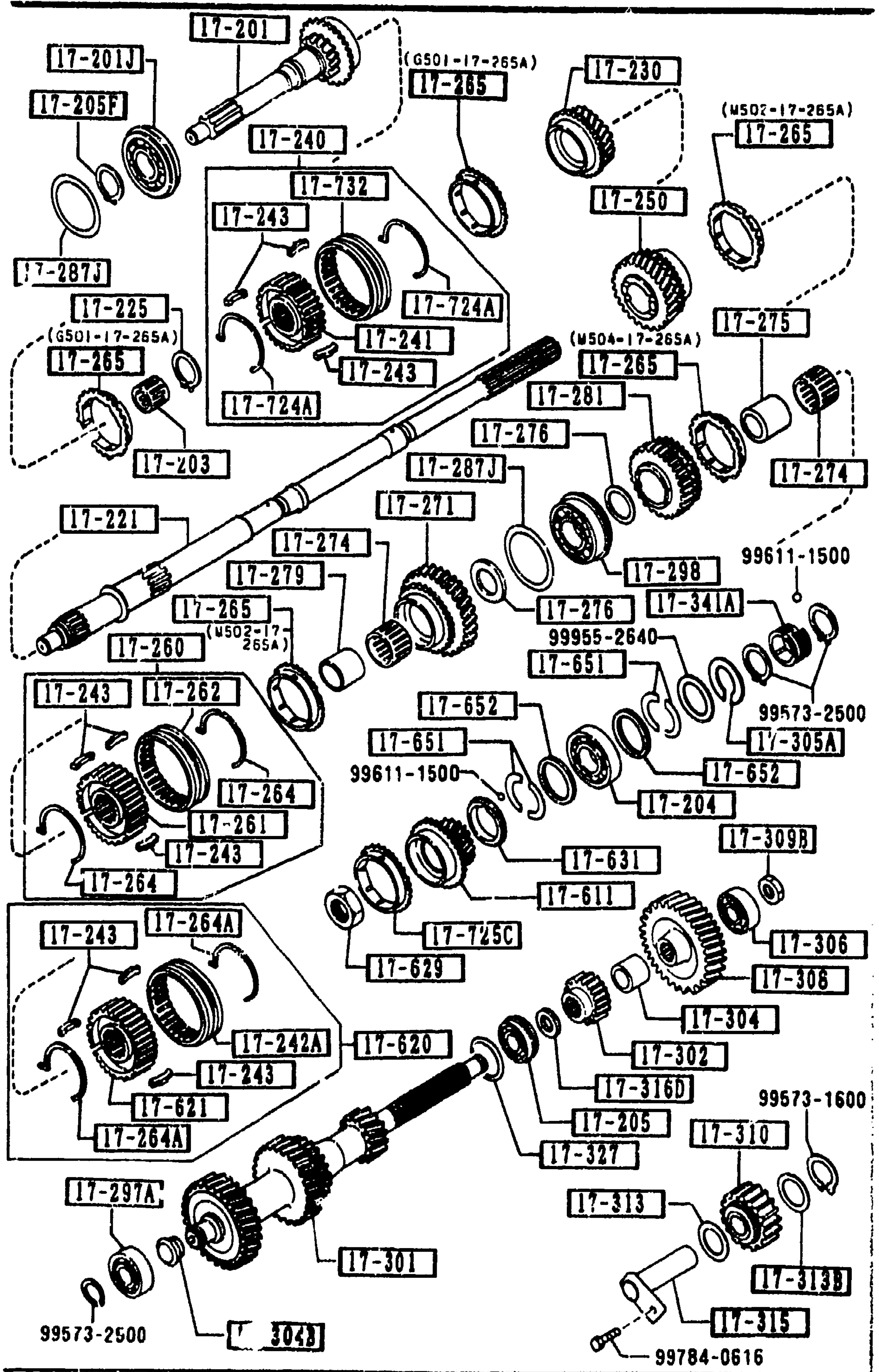
17-315
99784-0616

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-306		BEARING,BALL			
M502-17-299A	1				
17-308		GEAR,COUNTER			
M510-17-308	1				
17-309B		NUT,LOCK-COUNTER SHAFT BR			
M501-17-309	1				
17-310		GEAR,REVERSE IDLE			
M509-17-310 A (M509-17-310A)	1				-9801
M509-17-310A	1				9801-
17-313		WASHER,THRUST-REVERSE IDLE G.			
M501-17-313	1				
17-313B		WASHER,THRUST			
4077-17-314A	1	T=2.8MM			
4077-17-315A	1	T=3MM			
4077-17-316	1	T=2.6MM			
17-315		SHAFT,REV. IDLE GEAR			
8086-17-140A	1				
17-316D		SPACER			
R502-17-316	1				
17-327		SHIM,ADJUST-COUNTER SHAFT GEAR			
0305-17-327	2	T=0.1MM			
0305-17-328	1	T=0.3MM			
17-341A		GEAR,SPEEDO.DRIVE			
M503-17-341	1				
17-611		GEAR,OVER TOP			
M517-17-611	1				

9801 NA35MM-116316

1710 TRANSMISSION GEARS(MANUAL)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304B
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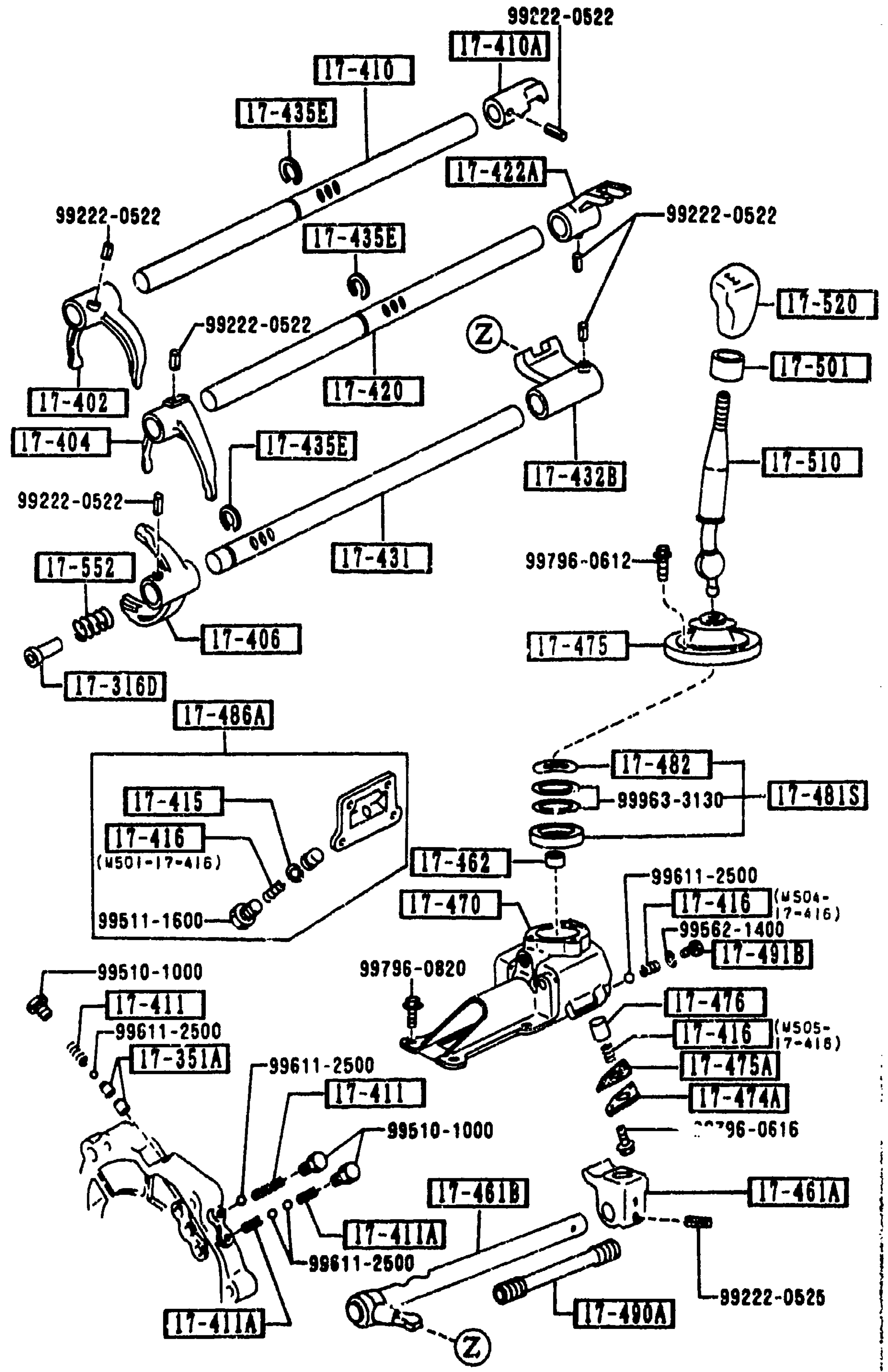
1710 -5 ✱ TRANSMISSION GEARS(MANUAL)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-620		HUB SET,CLUTCH-O.T. & REV			
M505-17-620	1				
17-621		HUB,CLUTCH			
M505-17-621	1				
17-629		NUT,LOCK-CLUTCH HUB			
8601-17-629	1				
17-631		WASHER,THRUST LOCK-OVER TOP G.			
0884-17-632B	1	T=6.2MM			
0884-17-633B	1	T=6.4MM			
0884-17-634B	1	T=6.5MM			
0884-17-635B	1	T=6.6MM			
17-651		WASHER,THRUST			
M501-17-651	4	T=3MM			
M501-17-653	2	T=3.1MM			
M501-17-654	2	T=3.2MM			
M501-17-655	2	T=2.9MM			
17-652		RING,THRUST WASHER			
M501-17-652	2	T=2MM			
17-724A		SPRING,SYNCHRO.KEY			
W501-17-724	2				
17-725C		RING,SYNCHRONIZER			
V501-17-725	1				
17-732		SLEEVE,CLUTCH HUB			
W501-17-732A A (W501-17-732B)	1				-9701
W501-17-732B	1				9701-

9701 NA35✱✱-111969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99611-2500
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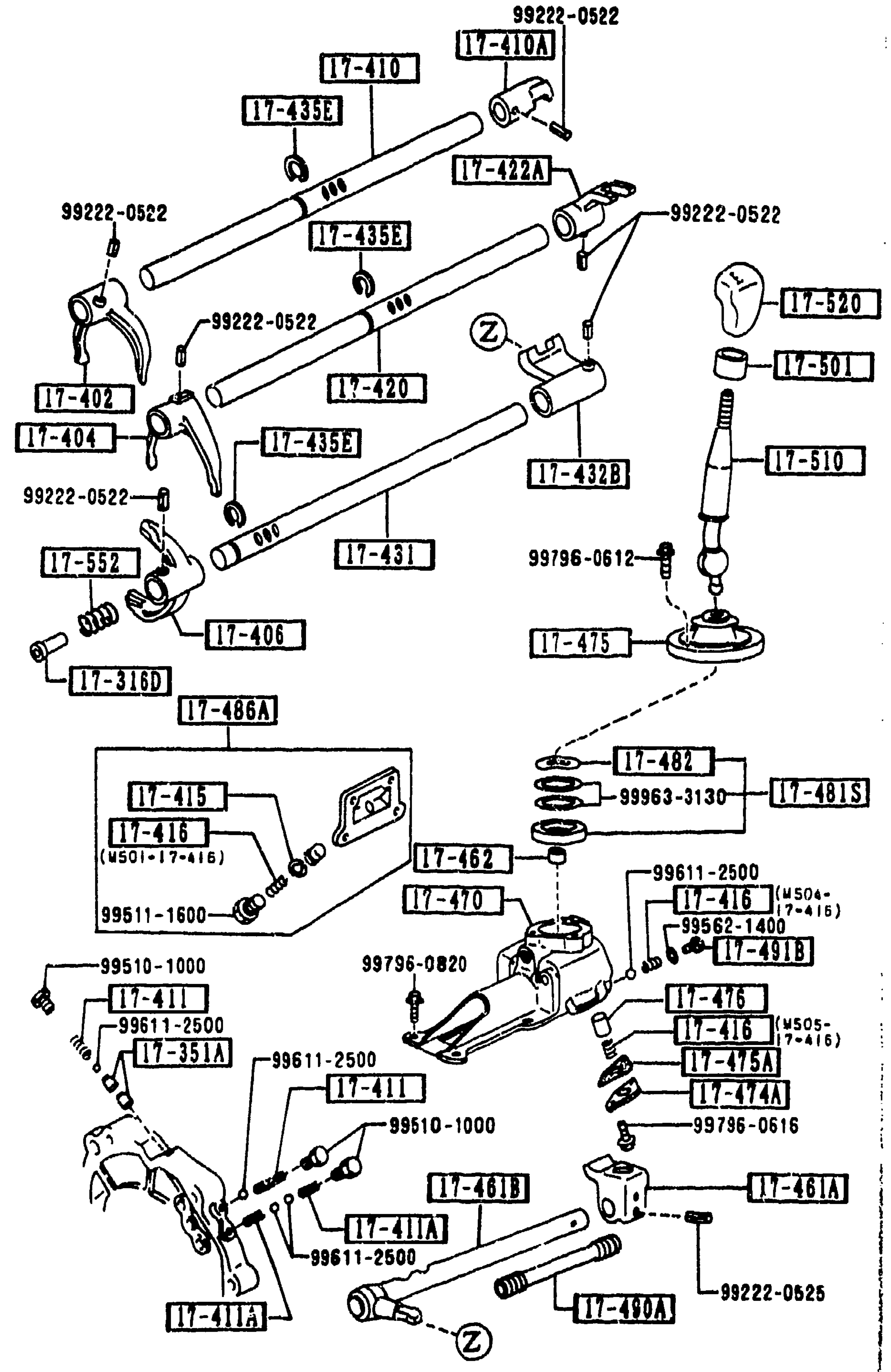
17-411A
Z

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-316D		SPACER			
M504-17-316	1				
17-351A		PIN.INTER LOCK			
0114-17-351	2				
17-402		FORK,SHIFT(1ST&2ND)			
M503-17-402	1				
17-404		FORK,SHIFT(3RD&4TH)			
M501-17-404B	1				
17-406		FORK,SHIFT			
M504-17-406A	1				
17-410		ROD,SHIFT(1ST&2ND)			
M503-17-411	1				
17-410A		END,S/ROD(1ST&2ND)			
M507-17-412	1				
17-411		SPRING,SHIFT ROD			
0103-17-411	2	5TH & REVERSE			
17-411A		SPRING,SHIFT ROD-REVERSE			
0014-17-411	2				
17-415		RING,RETAINING-SHIFT ROD END			
3648-17-415	1				
17-416		SPRING,SHIFT ROD END			
M501-17-416	1				
M504-17-416	1				
M505-17-416	1				
17-420		ROD,SHIFT(3RD&4TH)			
M503-17-421	1				
17-422A		END,S/ROD(3RD&4TH)			
M507-17-422	1				

1720 CHANGE CONTROL SYSTEM (MANUAL)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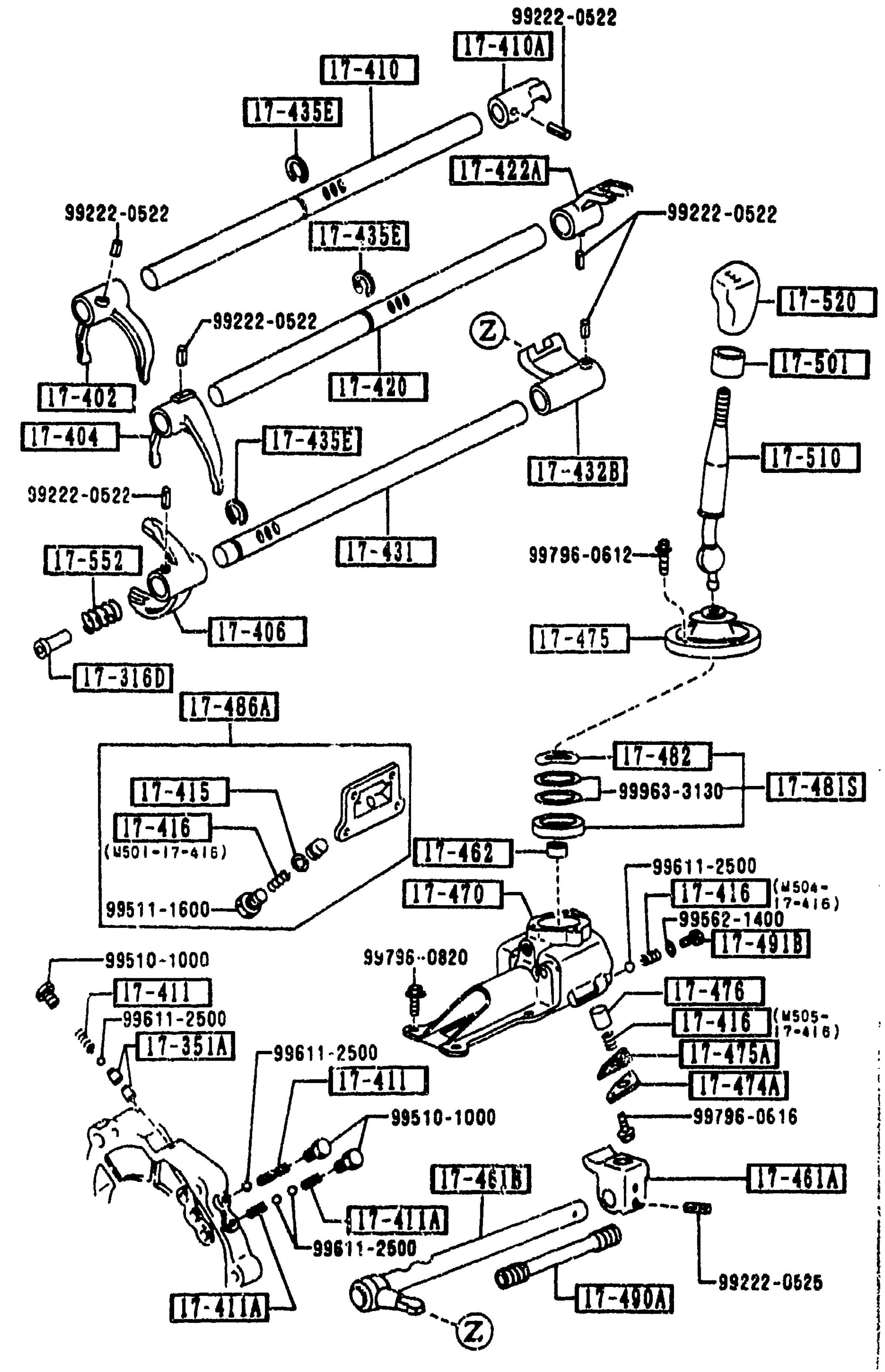
17-435E
17-520
99222-0522
Z
17-402
17-420
17-501
17-404
17-435E
17-432B
17-510
99222-0522
17-552
17-431
99796-0612
17-406
17-475
17-316D
17-486A
17-482
17-415
99963-3130
17-481S
17-416
(M501-17-416)
17-462
99611-2500
17-470
17-416
(M504-17-416)
99511-1600
99562-1400
17-491B
99510-1000
99796-0820
17-411
17-476
99611-2500
17-416
(M505-17-416)
17-351A
17-475A
99611-2500
17-474A
17-411
99510-1000
99796-0616
17-461B
17-461A
17-411A
99611-2500
99222-0625
17-490A
17-411A
Z

1720 -2 CHANGE CONTROL SYSTEM (MANUAL)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-431		ROD,SHIFT-OVER TOP & REVERSE			
M506-17-431 A (M506-17-431A)	1				-0316
M506-17-431A	1				0316-
17-432B		END,SHIFT ROD(O/TOP& REV.)			
M508-17-432	1				
17-435E		RING,RETAINING			
R502-17-435	3				
17-461A		END,CONTROL LEVER			
M508-17-461	1				
17-461B		ROD,CONTROL			
M516-17-450	1				
17-462		SHEET,SPRING			
0398-17-462A	1				
17-470		CASE,CHANGE CONTROL			
M510-17-470B A (M510-17-470C)	1				-0116
M510-17-470C	1				0116-
17-474A		CAP,SPRING			
M501-17-474	1				
17-475		BOOT,DUST-CHANGE LEVER			
M514-17-480 A (M514-17-480A)	1				-0515
M514-17-480A	1				0515-
17-475A		GASKET,SPRING CAP			
M501-17-475	1				
17-476		SPINDLE,SELECT LOCK			
M502-17-476A	1				
17-481S		BUSH SET,CHANGE LEVE			
M505-99-178	1				

0116 NA35**-134600
0316 NA35**-144394
0515 NA35**-151991

1720 CHANGE CONTROL SYSTEM (MANUAL)


99222-0522
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17-410
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17-422A
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17-435E
17-520
99222-0522
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17-420
17-501
17-404
17-435E
17-432B
17-510
99222-0522
17-431
17-552
99796-0612
17-406
17-475
17-316D
17-486A
17-482
17-415
99963-3130
17-481S
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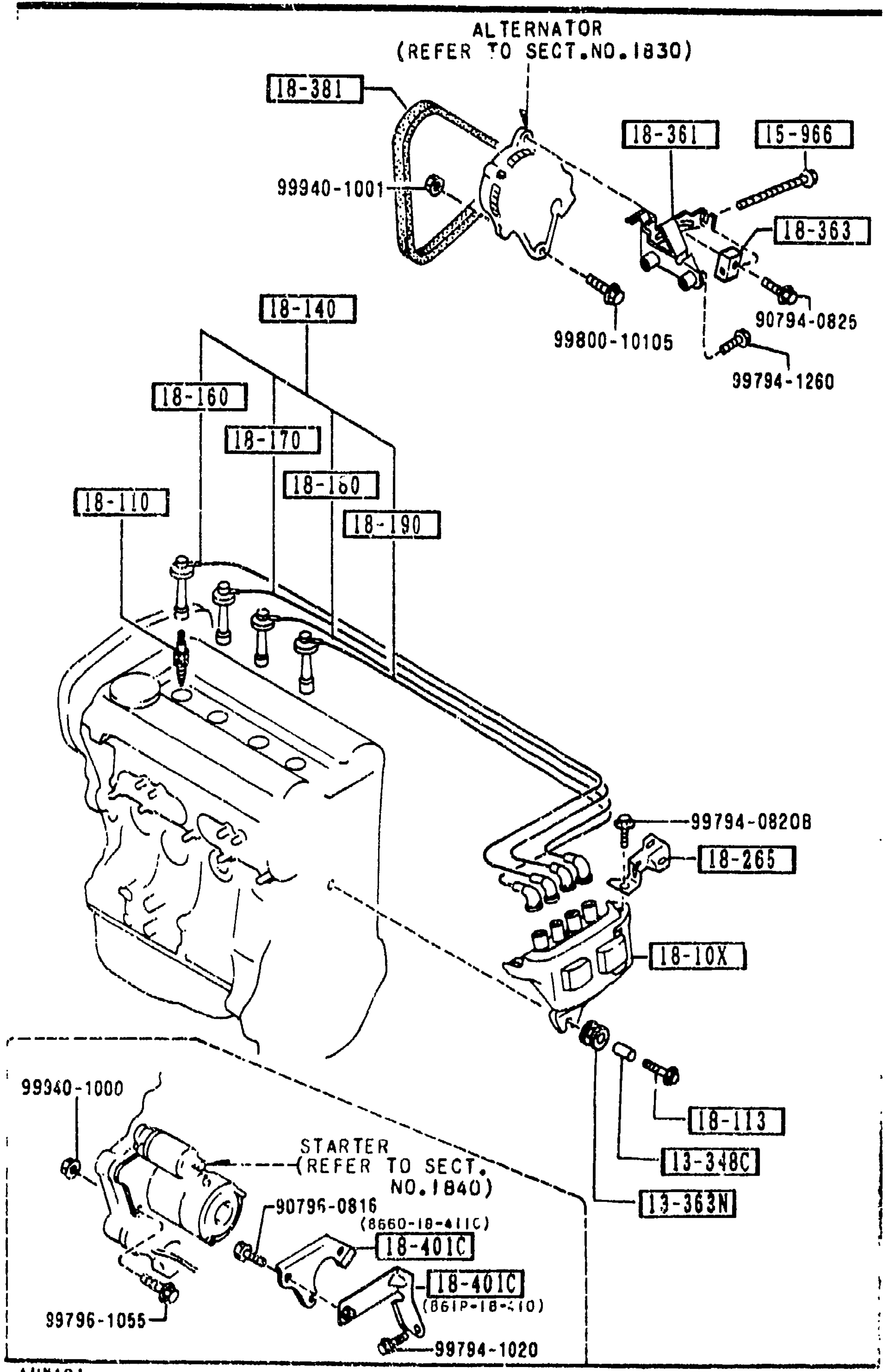
(M501-17-416)
17-462
99611-2500
17-470
17-416
(M504-17-416)
99511-1600
99562-1400
17-491B
99510-1000
99796-0820
17-476
17-411
99611-2500
17-416
(M505-17-416)
17-351A
17-475A
99611-2500
17-474A
17-411
99510-1000
99796-0616
17-461B
17-461A
17-411A
99611-2500
99222-0525
17-490A
17-411A
Z
Z

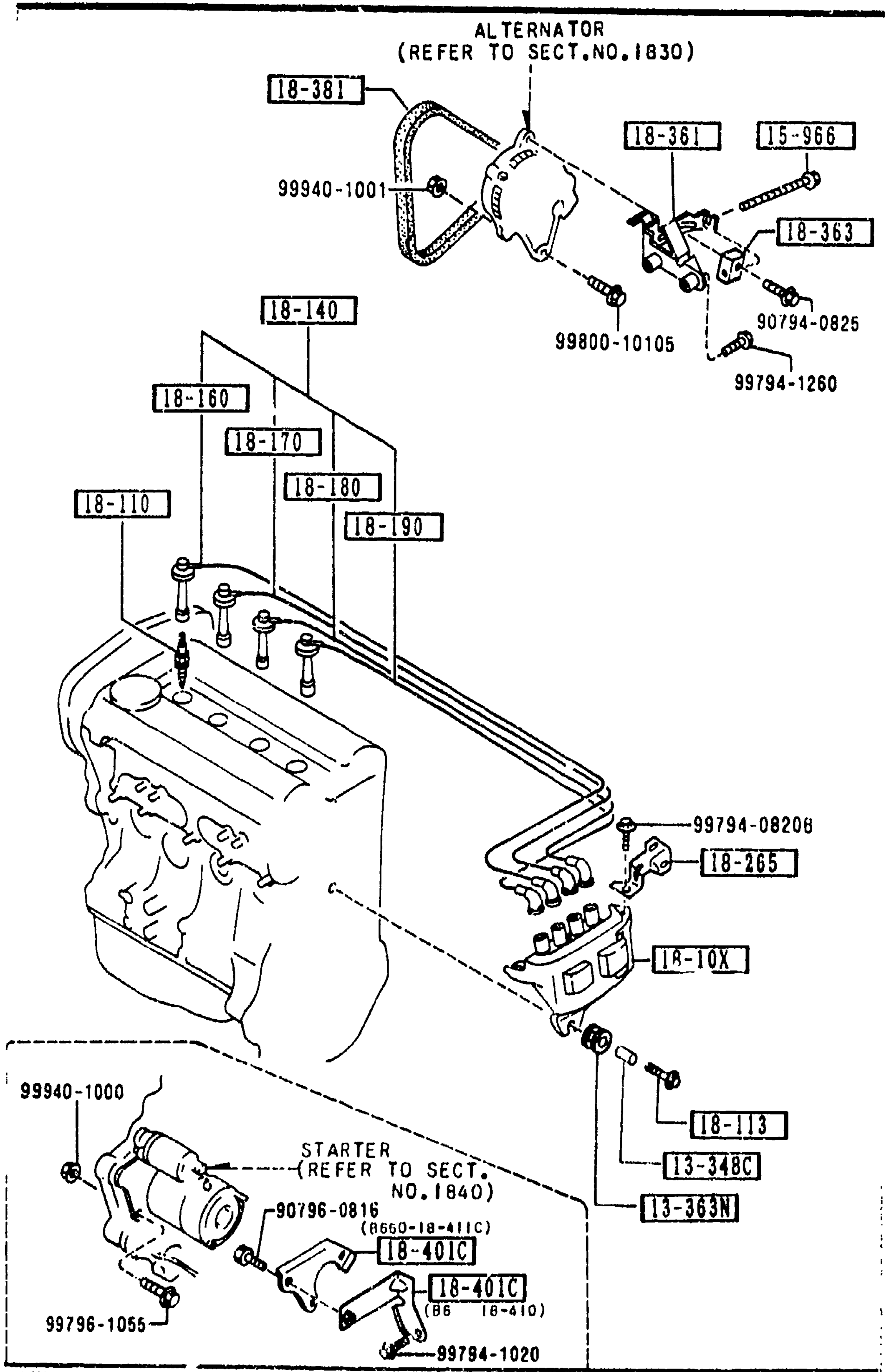
1720 -3 * CHANGE CONTROL SYSTEM (MANUAL)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-482 M505-17-482	1	WASHER,WAVE-CHANGE CONT.CASE			
17-486A R501-17-47X	1	COVER,BLIND			
17-490A M504-17-490A	1	COVER,ROD			
17-491B 0183-17-491	1	CAP,SPRING			
17-501 M501-17-501	1	INSULATOR,CHG LEVER			
17-510 M524-17-510A	1	LEVER,CHANGE			
17-520 M515-17-520	1	KNOB,CHANGE LEVER			
00		NAO BLACK			
17-552 M504-17-552	1	SPRING			


ALTERNATOR
(REFER TO SECT.NO.1830)
18-381
18-361
15-966
99940-1001
18-363
90794-0825
99800-10105
99794-1260
18-140
18-160
18-170
18-180
18-110
18-190
99794-08208
18-265
18-10X
18-113
13-348C
13-363N
99940-1000
STARTER
(REFER TO SECT.
NO.1840)
90796-0816
(8660-18-411C)
18-401C
18-401C
(B61P-18-410)
99796-1055
99794-1020

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-348C		SPACER			
B61P-13-348	1				
13-363N		RUBBER,MOUNTING			
B61P-13-363A	1				
15-966		BOLT,ADJUST			
FE38-15-966	1				
18-10X		COIL & IGNITER			
B61P-18-10XB AN(B61P-18-10XC)	1				-0521
B61P-18-10XC	1				0521-
18-110		PLUG,SPARK			
BP01-18-110	4	BKR5E11 NGK (OPTION HOT TYPE)			
BP02-18-110	4	K16PR-U11 DENSO (OPTION HOT TYPE)			
BP03-18-110	4	BKR6E-11 NGK (STD.)			
BP04-18-110	4	K20PR-U11 DENSO (STD.)			
BP05-18-110	4	BKR7E11 NGK (OPTION COLD TYPE)			
BP06-18-110	4	K22PR-U11 DENSO (OPTION COLD TYPE)			
18-113		BOLT			
B61P-18-1A5A	1				
18-140		CORD SET,HI.TENSION			
B61P-18-140B	1				
18-160		CORD NO.1,HI.TENSION			
B61P-18-160B	1				
18-170		CORD NO.2,HI.TENSION			
B61P-18-170B	1				
18-180		CORD NO.3,HI.TENSION			
B61P-18-180B	1				

0521 NA35**-152930


ALTERNATOR
(REFER TO SECT.NO.1830)
18-381
18-361
15-966
99940-1001
18-363
90794-0825
99800-10105
99794-1260
18-140
18-160
18-170
18-180
18-110
18-190
99794-08208
18-265
18-10X
99940-1000
STARTER
(REFER TO SECT.
NO.1840)
18-113
13-348C
13-363N
90796-0816
(B660-18-411C)
18-401C
18-401C
(B6 18-410)
99796-1055
99794-1020

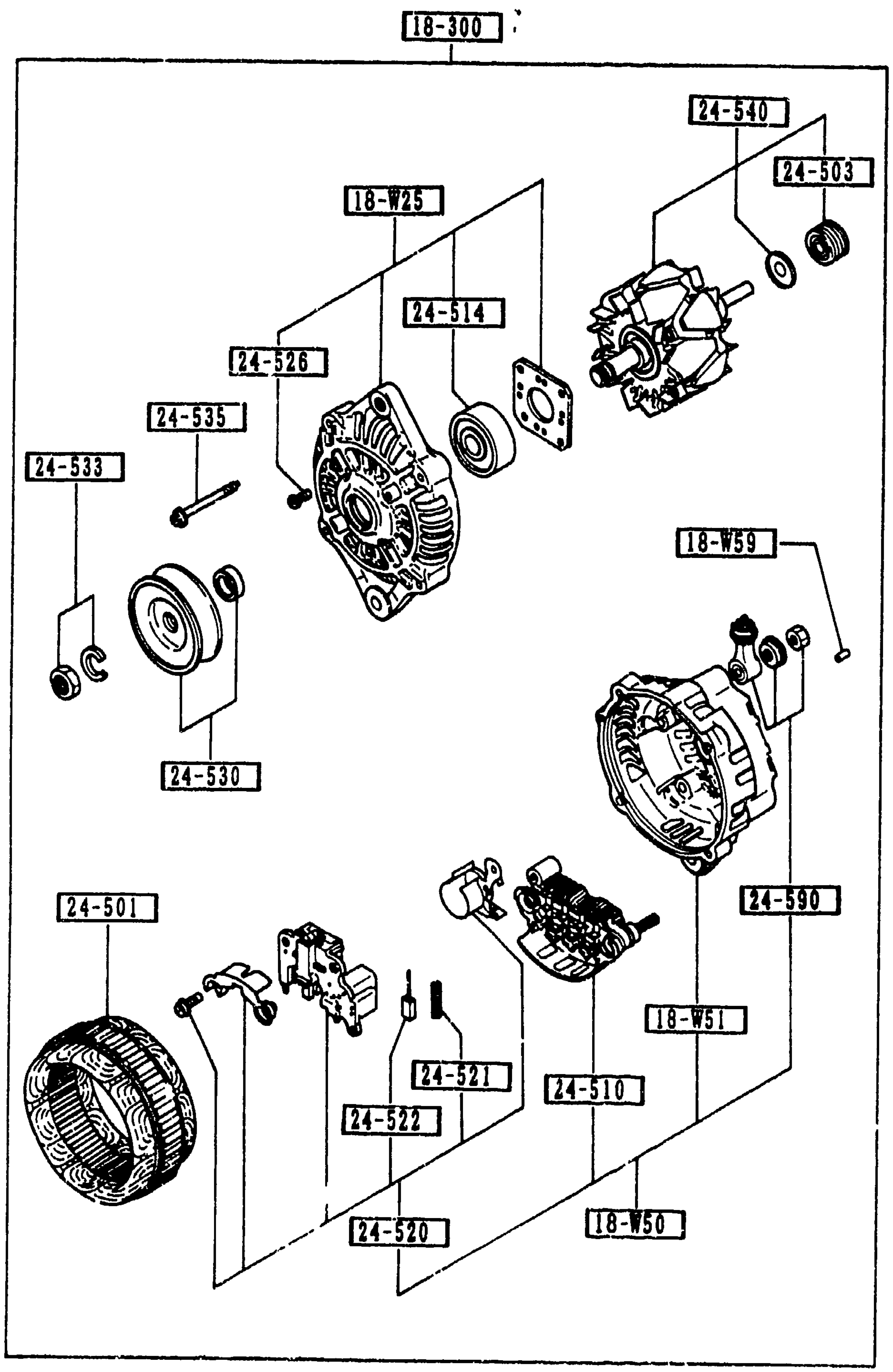
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
18-190		CORD NO.4,HI.TENSION			
B61P-18-190B	1				
18-265		CLIP,COUPLER			
B61R-18-266 A (B61R-18-266A)	1				-9A13
B61R-18-266A	1				9A13-
18-361		STRAP,ALTERNATOR			
B61P-18-360 A (B61P-18-360A)	1				-9B01
B61P-18-360A	1				9B01-
18-363		SPACER,STRAP			
F201-18-363	1				
18-381		BELT'V'			
B6S7-18-381A A (B6S7-18-381B)	1	AUTO-FLEX-3 A-34.7			-0308
B6S7-18-381B	1	AUTO-FLEX-3 A-34.7			0308-
18-401C		BRACKET,STARTER			
B61P-18-410	1				
B660-18-411C	1				

9A13 NA35**-124217
9B01 NA35**-126490
0308 NA35**-142998

SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-I03	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON,CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-I04	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET,PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-I08	1930	CLUTCHES & PLANETARY GEARS (AUTOMATIC)						
1-D09	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMATIC)						
1-I09	1960	GASKET & SEAL KIT (AUTOMATIC)						

1830 ALTERNATOR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24-540
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18-W25
24-514
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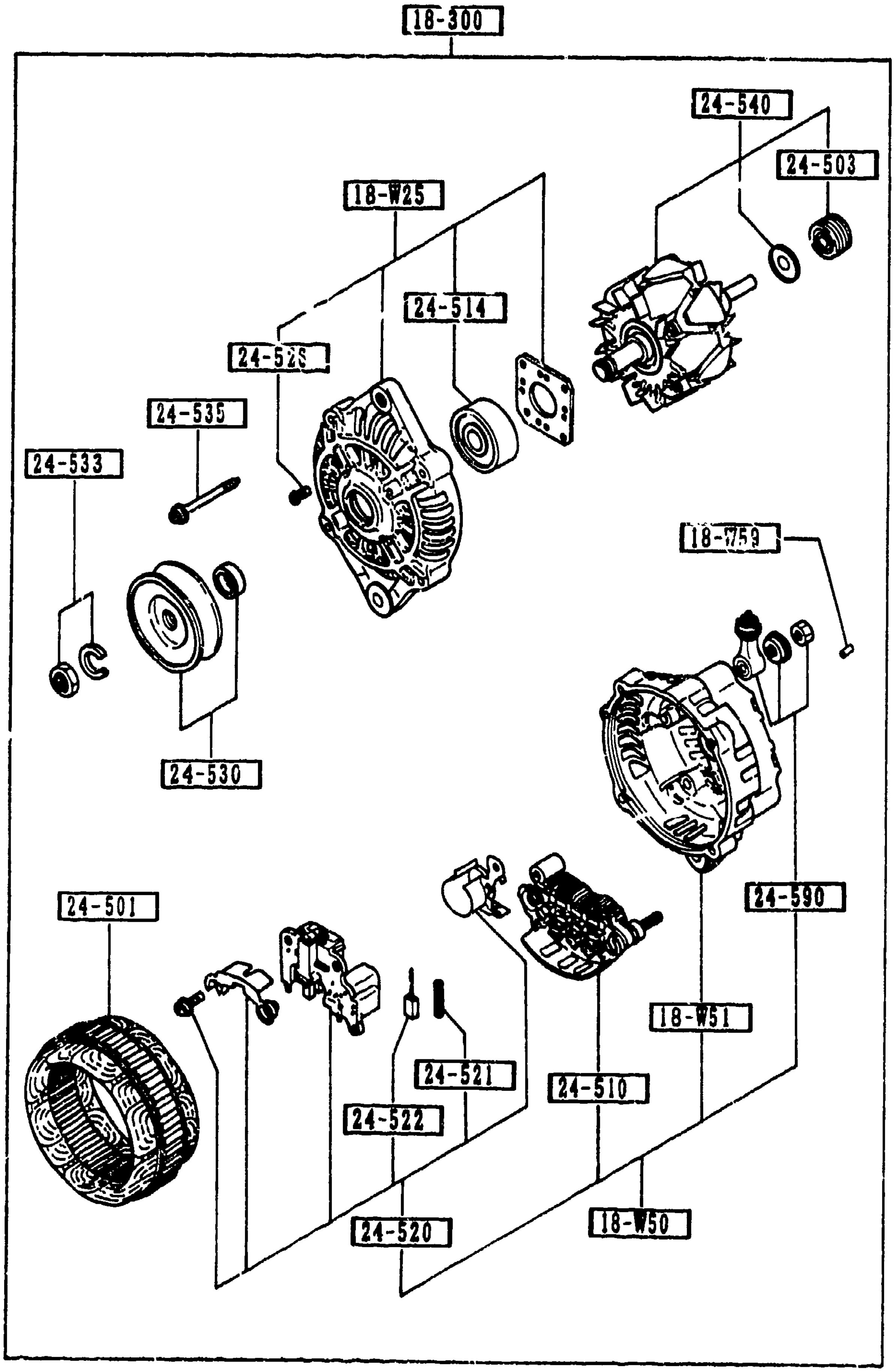
24-535
24-533
18-W59
24-530
24-501
24-590
18-W51
24-521
24-510
24-522
24-520
18-W50

1830 -1 ALTERNATOR

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
18-W25		COVER,FRONT-ALTERNATOR			
B61P-18-W25	1				
18-W50		COVER,REAR-ALTERNATOR			
B61P-18-W50	1	(MT)			
B64J-18-W50	1	(AT)			
18-W51		COVER,REAR-ALTERNATOR			
B366-18-W51	1				
18-W59		PLUG			
B675-18-W59	1				
18-300		ALTERNATOR			
B61P-18-300D	1	(MT)			
B64J-18-300A	1	(AT)			
24-501		STATOR			
B366-18-W45	1	(AT)			
G608-18-W45	1	(MT)			
24-503		BEARING,BALL-ALT. REAR			
N336-18-W36	1				
24-510		RECTIFIER			
B366-18-W60	1	(AT)			
B61P-18-W60	1	(MT)			
24-514		BEARING,BALL-ALT. FRONT			
F811-18-W27	1				
24-520		REGULATOR			
B61P-18-W70	1				
24-521		SPRING,BRUSH			
8599-24-521	2				
24-522		BRUSH			
FE2H-18-W77	2				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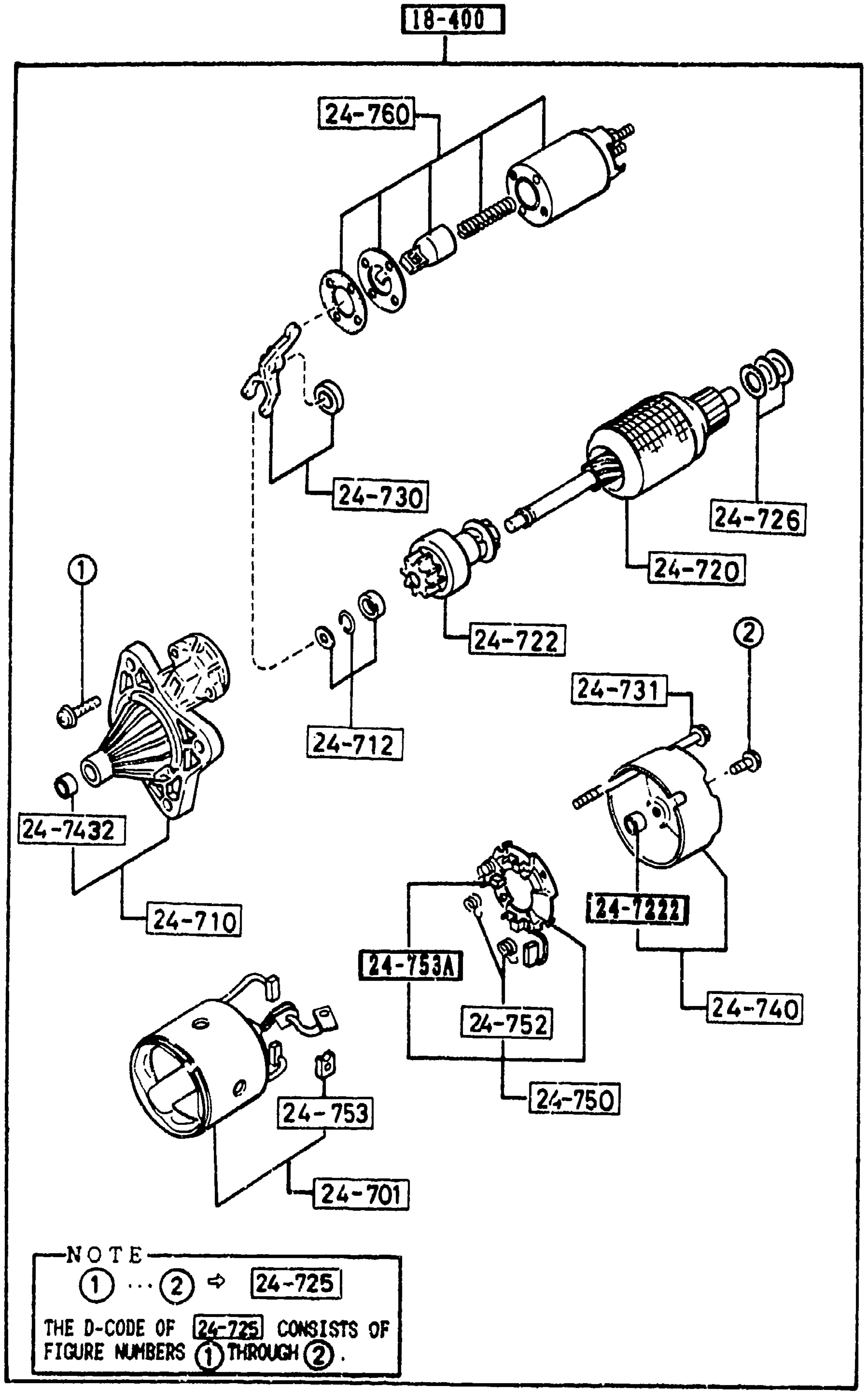
24-535
24-533
18-W59
24-530
24-501
24-590
18-W51
24-521
24-510
24-522
24-520
18-W50

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
24-526		SCREW SET			
RF71-18-W26	1				
24-530		PULLEY			
B366-18-W10	1				
24-533		NUT SET			
8028-24-533	1				
24-535		SCREW SET			
RF71-18-W20	1				
24-540		ROTOR			
B61P-18-W35	1	(MT)			
B366-18-W35 A (B366-18-W35A)	1				-0601
B366-18-W35A	1	(AT)			0601-
24-590		TERMINAL SET			
N337-18-W80	1				

0601 NA35※※-154732


18-400
24-760
24-730
24-726
24-720
24-722
24-712
①
②
24-731
24-7432
24-710
24-7222
24-740
24-753A
24-752
24-750
24-753
24-701

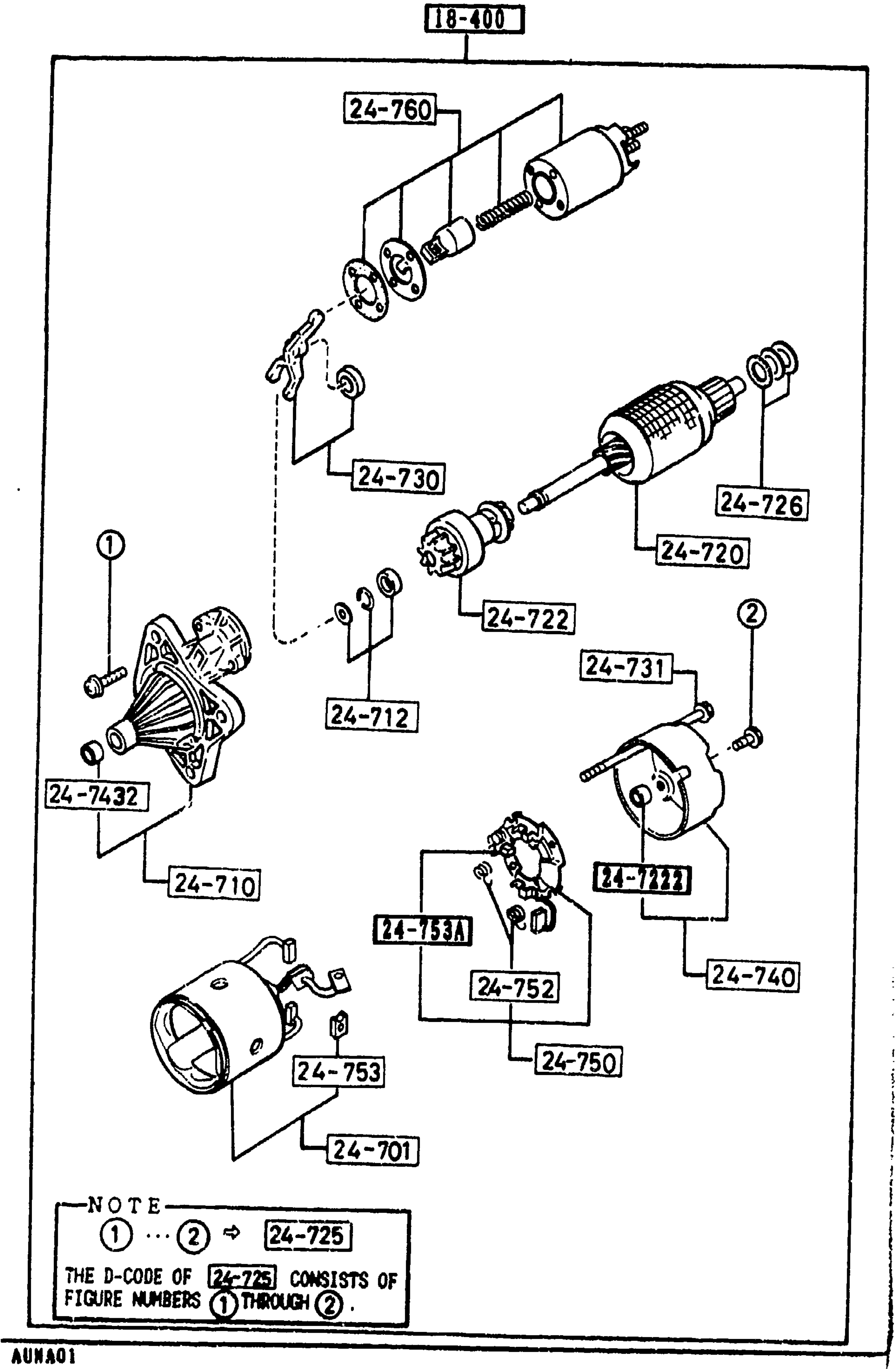
NOTE

① ··· ② ⇨ 24-725

THE D-CODE OF 24-725 CONSISTS OF FIGURE NUMBERS ① THROUGH ②.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
18-400		STARTER			
B61R-18-400 A (B61R-18-400A)	1	ASBESTOS			-9B21
B61R-18-400A	1	NON ASBESTOS			9B21-
24-701		YOKE			
B61R-18-X65	1				
24-710		BRACKET,FRONT			
B61R-18-X00	1				
24-712		STOPPER SET			
E356-18-X30	1				
24-720		ARMATURE			
F210-18-X60	1	ASBESTOS			-9B21
B6S8-18-X60	1	NON ASBESTOS			9B21-
24-722		CLUTCH,OVER RUNNING			
B630-18-X45	1				
24-7222		SLEEVE,BEARING-REAR			
E356-18-X81	1				
24-725		REW SET			
E356-18-X95					
24-726		WASHER SET			
E356-18-X92	1				
24-730		LEVER			
E356-18-X05	1				
24-731		BOLT SET			
B630-18-X90	2				
24-740		BRACKET,REAR			
E356-18-X80	1				

9B21 NA35**-129010


18-400
24-760
24-730
24-726
24-720
①
24-722
②
24-731
24-712
24-7432
24-710
24-7222
24-753A
24-752
24-740
24-753
24-750
24-701

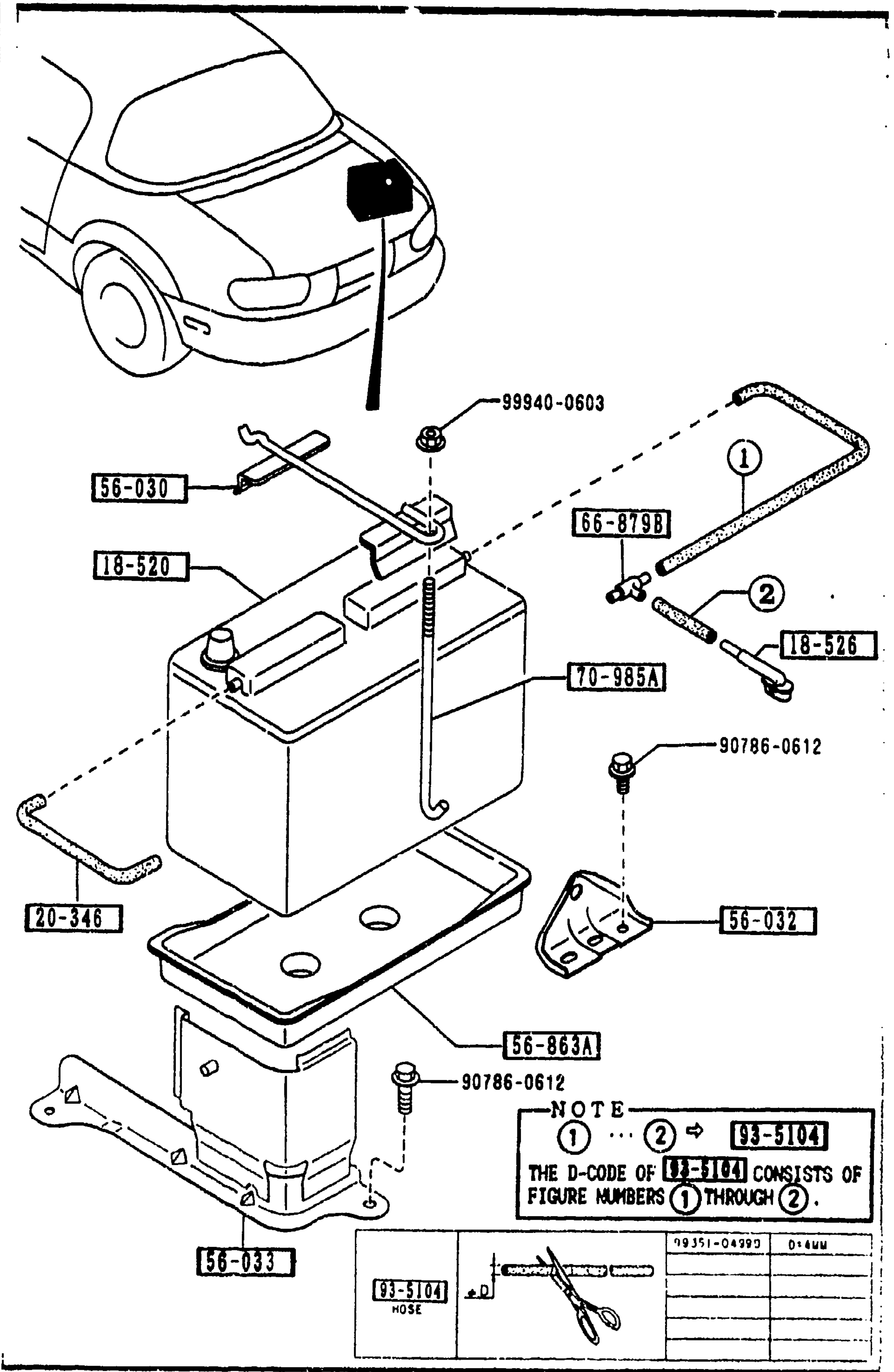
NOTE

① ··· ② ⇨ 24-725

THE D-CODE OF 24-725 CONSISTS OF FIGURE NUMBERS ① THROUGH ②.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
24-7432		SLEEVE,BEARING-FRONT			
F210-18-X01	1				
24-750		HOLDER,BRUSH			
B61R-18-X70	1				
24-752		SPRING,BRUSH			
0222-24-752A	4				
24-753		BRUSH,YOKE			
B630-18-X66	2				
24-753A		BRUSH			
B660-18-X66	2				
24-760		SWITCH			
E356-18-X10	1				

1850 BATTERY


99940-0603
56-030
66-879B
①
18-520
②
18-526
70-985A
90786-0612
20-346
56-032
56-863A
90786-0612
56-033
93-5104
HOSE
φD
99351-04999
D:4MM

NOTE
① ··· ② ⇨ 93-5104
THE D-CODE OF 93-5104 CONSISTS OF FIGURE NUMBERS ① THROUGH ②.

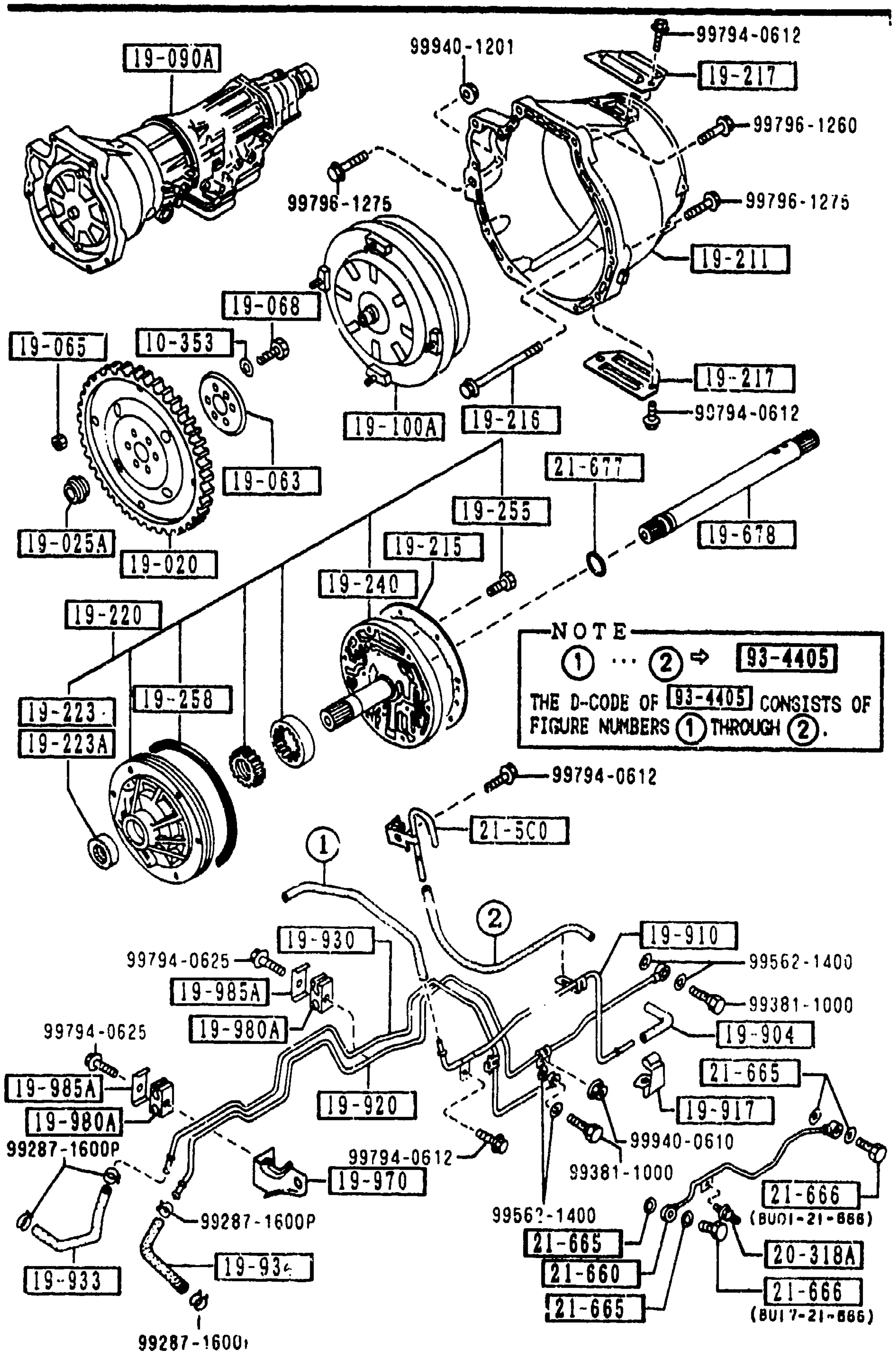
93-5104 HOSE		99351-04999	D:4MM

1650 -1 * BATTERY

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
18-520		BATTERY			
B61R-18-520A AN(B61R-18-520B)	1	S46A24L(S) PANASONIC			-0201
B61R-18-520B	1	S46A24L(S) PANASONIC			0201-
18-526		CONNECTOR,TUBE-BATTERY			
B61P-18-526	1				
20-346		TUBE,VACUUM			
FE4J-20-346	1				-9901
B61P-18-524	1				9901-
56-030		CLAMP,BATTERY			
NA01-56-03XA	1				
56-032		BRACKET,BATTERY CLAMP			
NA01-56-032A	1	(W/STD.BATTERY)			
56-033		BRACKET,STOPPER-BATTERY			
NA01-56-033A	1	(W/STD.BATTERY)			
56-863A		TRAY,BATTERY			
B095-56-032	1				
66-879B		JOINT			
U813-66-879	1				
70-985A		BOLT,CLAMP			
0259-54-292A	1				
93-5104		HOSE			
99351-04999	1				

9901 NA35**-119257
0201 NA35**-137180

1910 TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)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②
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99794-0625
19-930
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99381-1000
19-980A
19-904
99794-0625
21-665
19-985A
19-920
19-917
19-980A
99940-0610
99287-1600P
99794-0612
19-970
99381-1000
21-666
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99287-1600P
99562-1400
21-665
20-318A
21-660
19-933
19-934
21-666
(BU17-21-666)
21-665
99287-1600P

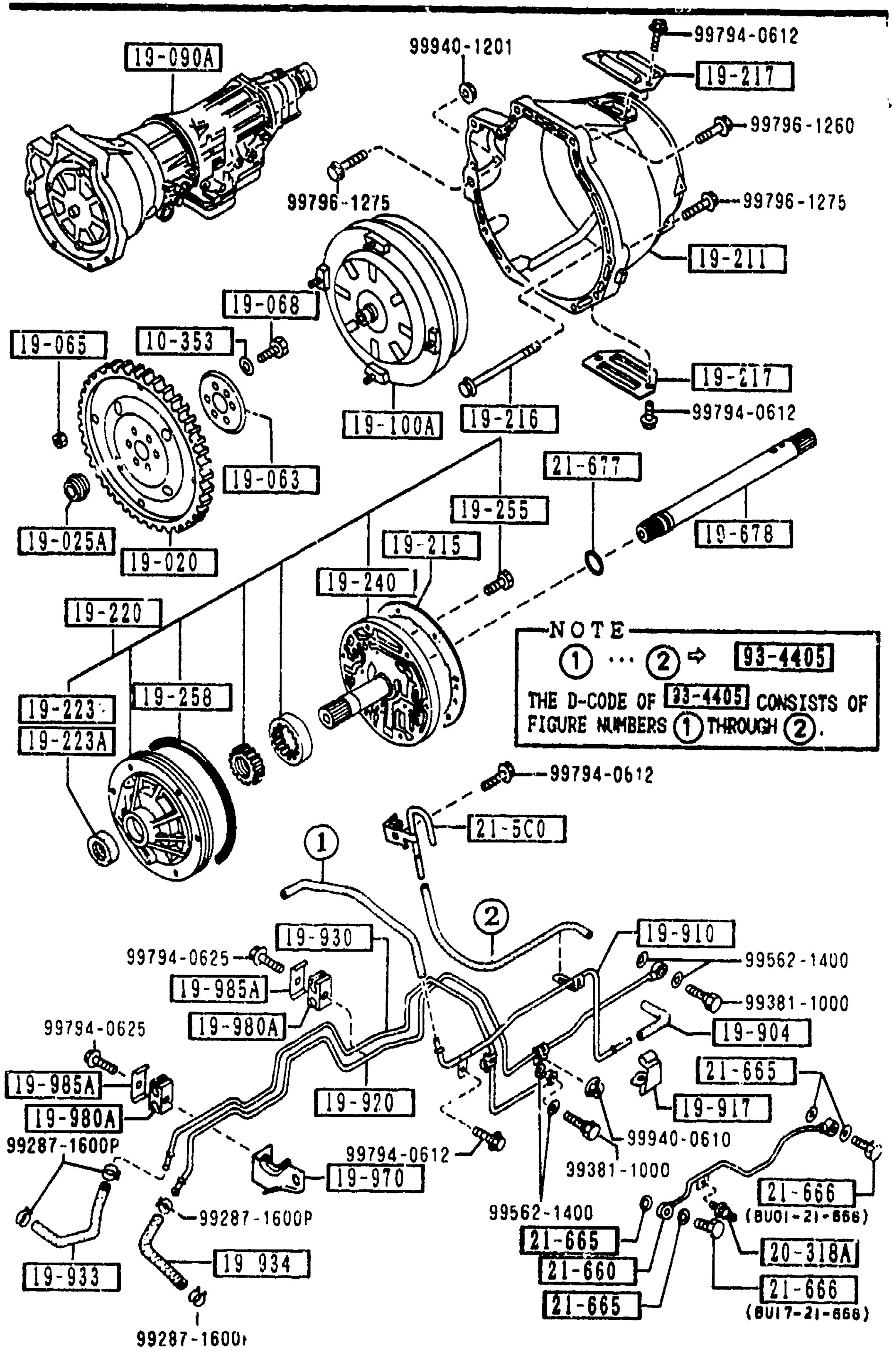
NOTE
① ··· ② ⇨ 93-4405
THE D-CODE OF 93-4405 CONSISTS OF FIGURE NUMBERS ① THROUGH ②.

AUNA01

1910 -1 TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-353 0290-10-353	6	WASHER,PLAIN			
19-020 BU55-19-020	1	PLATE,DRIVE			
19-025A FU60-19-025	1	ADAPTER,DRIVE PLATE			
19-063 FT31-19-063	1	PLATE,BACKING			
19-065 FU51-19-065	4	NUT			
19-068 FT31-19-064	6	BOLT,LOCK			
19-090A BUY2-19-090	1	T/MISSION CPT.			-0301
AN(BUY2-19-090A)					
BUY2-19-090A	1				0301-
19-100A BU55-19-100	1	CONVERTER,TORQUE			
19-211 BU55-19-211	1	HOUSING,CONVERTER			
19-215 BU01-19-215	1	GASKET,OIL PUMP ASBESTOS			
19-216 BU01-19-216	6	BOLT			
19-217 BU55-19-217	2	COVER,BLIND			
19-220 BU55-19-220	1	PUMP,OIL			

0301 NA35MM-141901


19-090A
99940-1201
99794-0612
19-217
99796-1260
99796-1275
99796-1275
19-211
19-068
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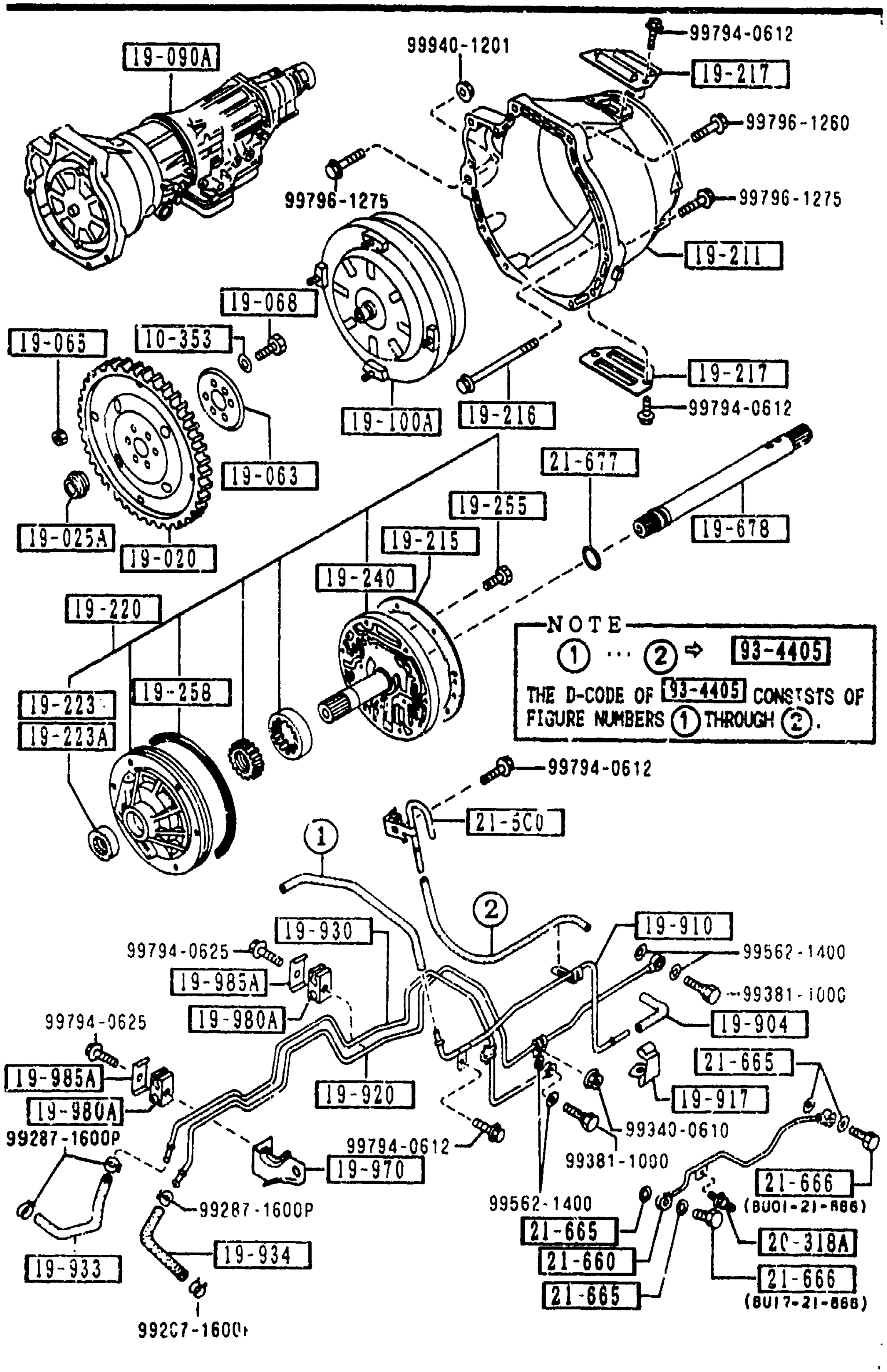
19-100A
19-216
19-217
99794-0612
19-063
21-677
19-255
19-678
19-025A
19-020
19-215
19-240
19-220
NOTE
① ··· ② ⇨ 93-4405
THE D-CODE OF 93-4405 CONSISTS OF
FIGURE NUMBERS ① THROUGH ②.
19-223
19-223A
19-258
99794-0612
21-5C0
①
②
19-930
19-910
99794-0625
99562-1400
19-985A
99381-1000
19-980A
19-904
99794-0625
21-665
19-985A
19-920
19-917
19-980A
99287-1600P
99940-0610
99794-0612
99381-1000
19-970
21-666
(BU01-21-666)
99287-1600P
99562-1400
21-665
20-318A
21-660
19 934
19-933
21-666
21-665
(BU17-21-666)
99287-1600P

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-223		SEAL,OIL			
BU55-19-223	1				
19-223A		SEAL,OIL			
0338-19-223A	1				
19-240		COVER,OIL PUMP			
BU55-19-240	1				
19-255		BOLT			
0338-19-255	5				
19-258		SEAL,CUT RING			
0338-19-258	1				
19-678		SHAFT,INPUT			
BU55-21-678	1				
19-904		HOSE,VACUUM			
0338-19-904A	1				
19-910		PIPE,VACUUM			
BU55-19-910A	1				
19-917		CLIP			
BU17-19-917	1				
19-920		PIPE,OIL			
BU55-19-920B A (BU55-19-920C)	1				-0221
BU55-19-920C	1				0221-
19-930		PIPE,OIL			
BU55-19-930B A (BU55-19-930C)	1				-0221
BU55-19-930C	1				0221-
19-933		HOSE,OIL			
BU55-19-933A	1				
19-934		HOSE,OIL			

0221 NA35**-140695

1910 TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)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19-100A
19-216
19-217
99794-0612
19-063
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19-255
19-678
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19-020
19-215
19-240
19-220
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19-223A
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②
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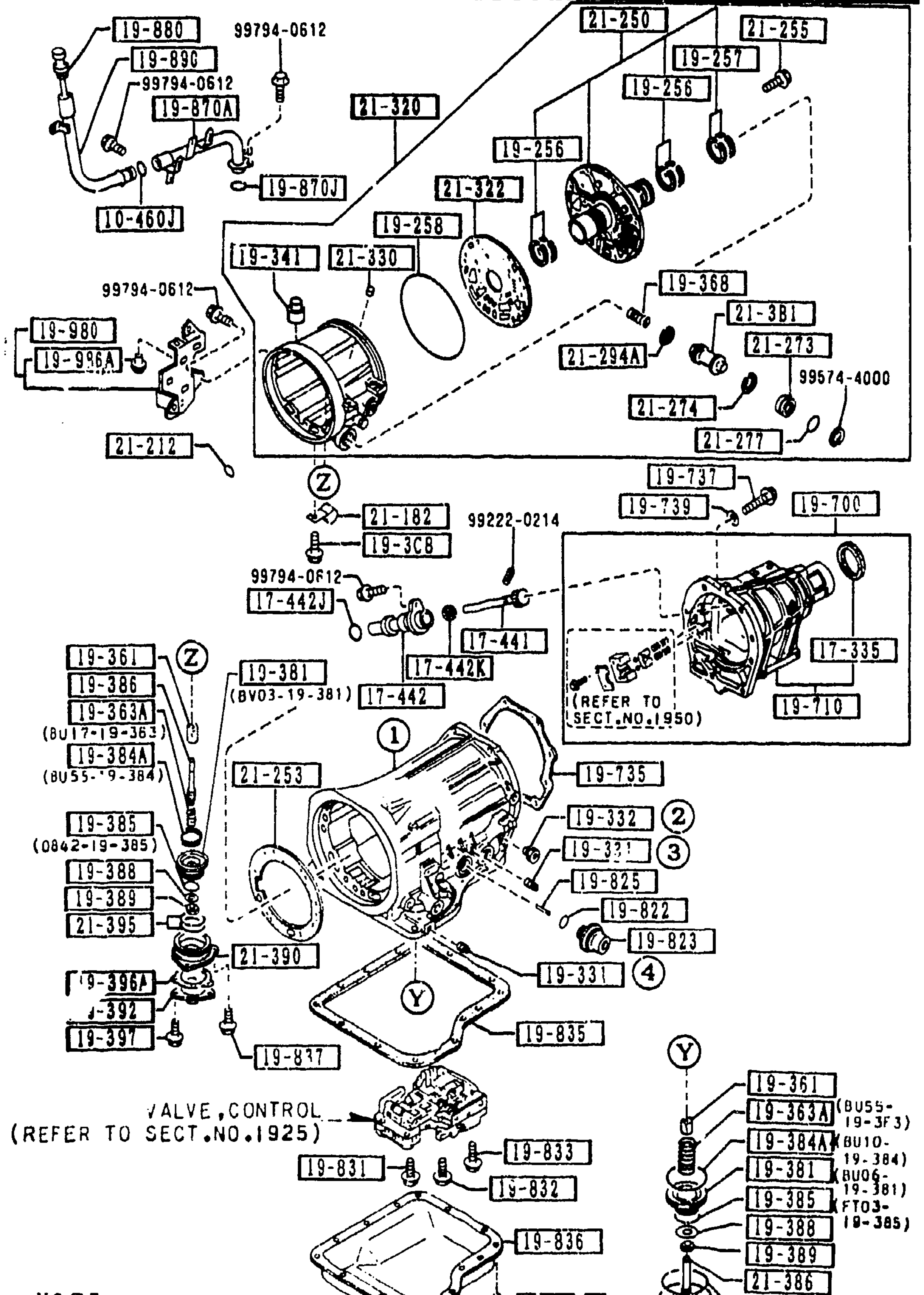
19-910
99794-0625
99562-1400
19-985A
99381-1000
19-980A
19-904
99794-0625
21-665
19-985A
19-920
19-917
19-980A
99340-0610
99287-1600P
99794-0612
19-970
99381-1000
21-666
(BU01-21-666)
99562-1400
99287-1600P
21-665
20-318A
21-660
19-934
21-666
(BU17-21-666)
19-933
21-665
99207-1600

NOTE
① ··· ② ⇨ 93-4405
THE D-CODE OF 93-4405 CONSISTS OF FIGURE NUMBERS ① THROUGH ②.

1910 -3 * TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D BU55-19-934A	1				
19-970		BRACKET			
BU55-19-970A	1				
19-980A		SUPPORT,OIL PIPE			
BU29-19-980	2				
19-985A		CLIP,OIL PIPE			
BU29-19-985	2				
20-318A		BOLT			
BU27-19-838	1				
21-5C0		BREATHER			
BU55-21-5C0A	1				
21-660		TUBE,GOVERNOR			
BU55-21-660	1				
21-665		WASHER,SEAL			
BU01-21-665	4				
21-666		BOLT,CONNECTOR			
BU01-21-666	1				
BU17-21-666	1				
21-677		RING,'O'			
BU01-21-677	1				
93-4405		HOSE			
99344-05150	1				

1920 TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)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19-890
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10-460J
21-322
19-258
19-341
21-330
99794-0612
19-980
19-996A
19-368
21-381
21-294A
21-273
99574-4000
21-274
21-277
21-212
Z
19-737
19-739
19-700
21-182
19-3C8
99222-0214
99794-0F12
17-442J
17-441
17-442K
17-442
17-335
(REFER TO SECT.NO.1950)
19-710
19-361
Z
19-386
19-363A
(BU17-19-363)
19-384A
(BU55-19-384)
19-381
(BV03-19-381)
1
21-253
19-735
19-385
(0842-19-385)
19-332
2
19-331
3
19-388
19-389
21-395
19-825
19-822
19-823
21-390
19-331
4
19-396A
19-392
19-397
Y
19-837
19-835
Y
19-361
19-363A
(BU55-19-3F3)
VALVE, CONTROL
(REFER TO SECT.NO.1925)
19-384A
(BU10-19-384)
19-381
(BU06-19-381)
19-385
(FT03-19-385)
19-831
19-833
19-832
19-388
19-389
19-836
21-386
19-394
19-837
19-395
19-391
19-398

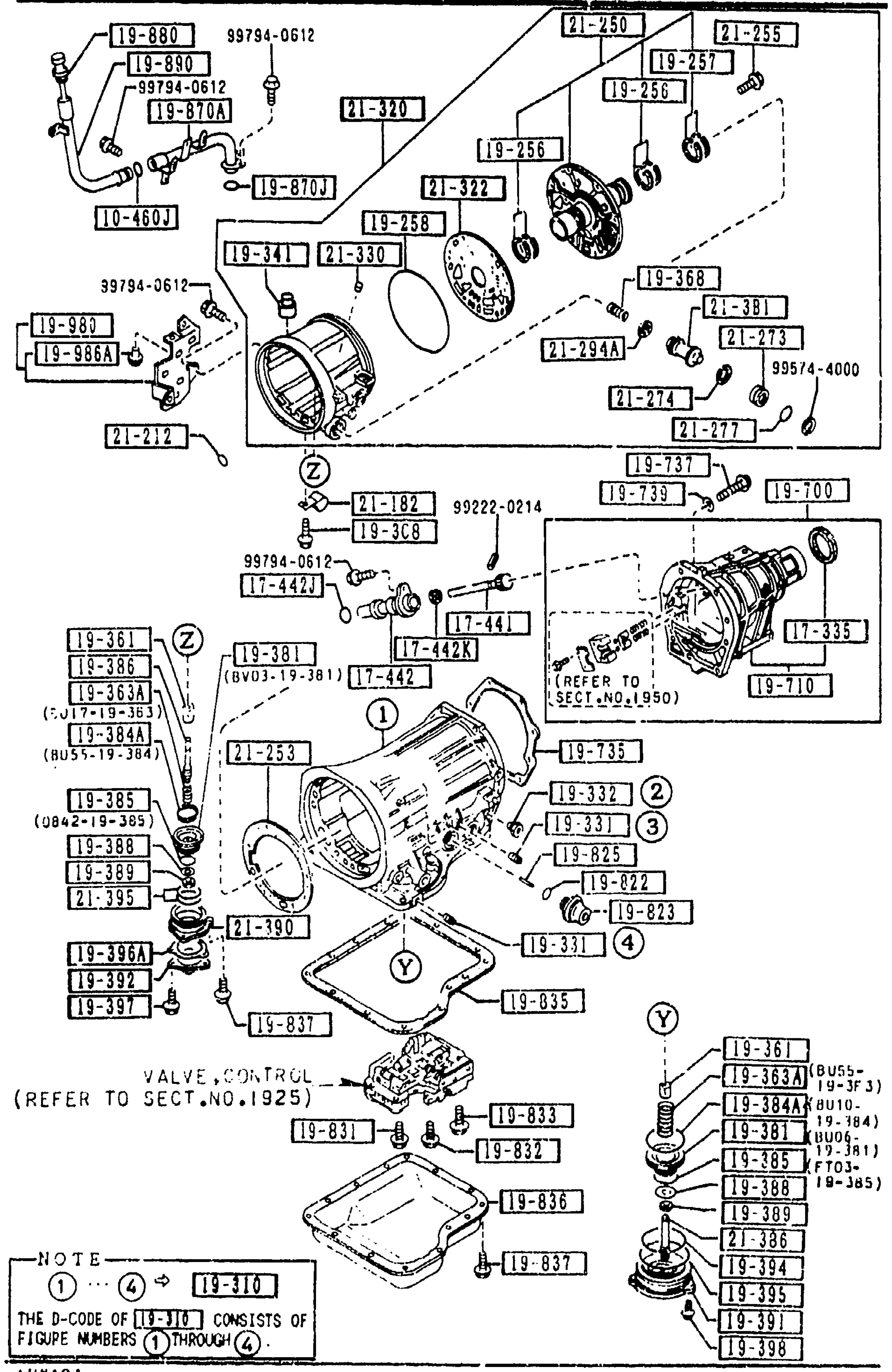
NOTE

① ··· ④ ⇨ 19-310

THE D-CODE OF 19-310 CONSISTS OF FIGURE NUMBERS ① THROUGH ④.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-460J 99541-01201	1	RING,'O'			
17-335 M507-17-335	1	SEAL,OIL			
17-441 BU55-17-441	1	GEAR,DRIVEN			
17-442 BU55-17-442	1	SLEEVE,SPEEDOMETER			
17-442J 1011-17-443	1	RING,'O'			
17-442K 99586-08166	1	SEAL,OIL			
19-256 BU01-19-256	4	RING,SEAL			
19-257 BU01-19-257	2	RING,SEAL			
19-258 0338-19-258	1	SEAL,CUT RING			
19-3C8 BU55-19-3C8	1	BOLT,BUFFLE PLATE			
19-310 BU55-19-310A	1	CASE,T/MISSION			
19-331 BV11-19-3C4	2	PLUG,SQUARE HEAD			
19-332 BU01-19-332A	1	CONNECTOR,STRAIGHT			
19-341 0338-19-341	1	BOLT,ANCHOR END			

1920 TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)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19-890
99794-0612
99794-0612
19-870A
19-870J
10-460J
21-320
21-250
19-257
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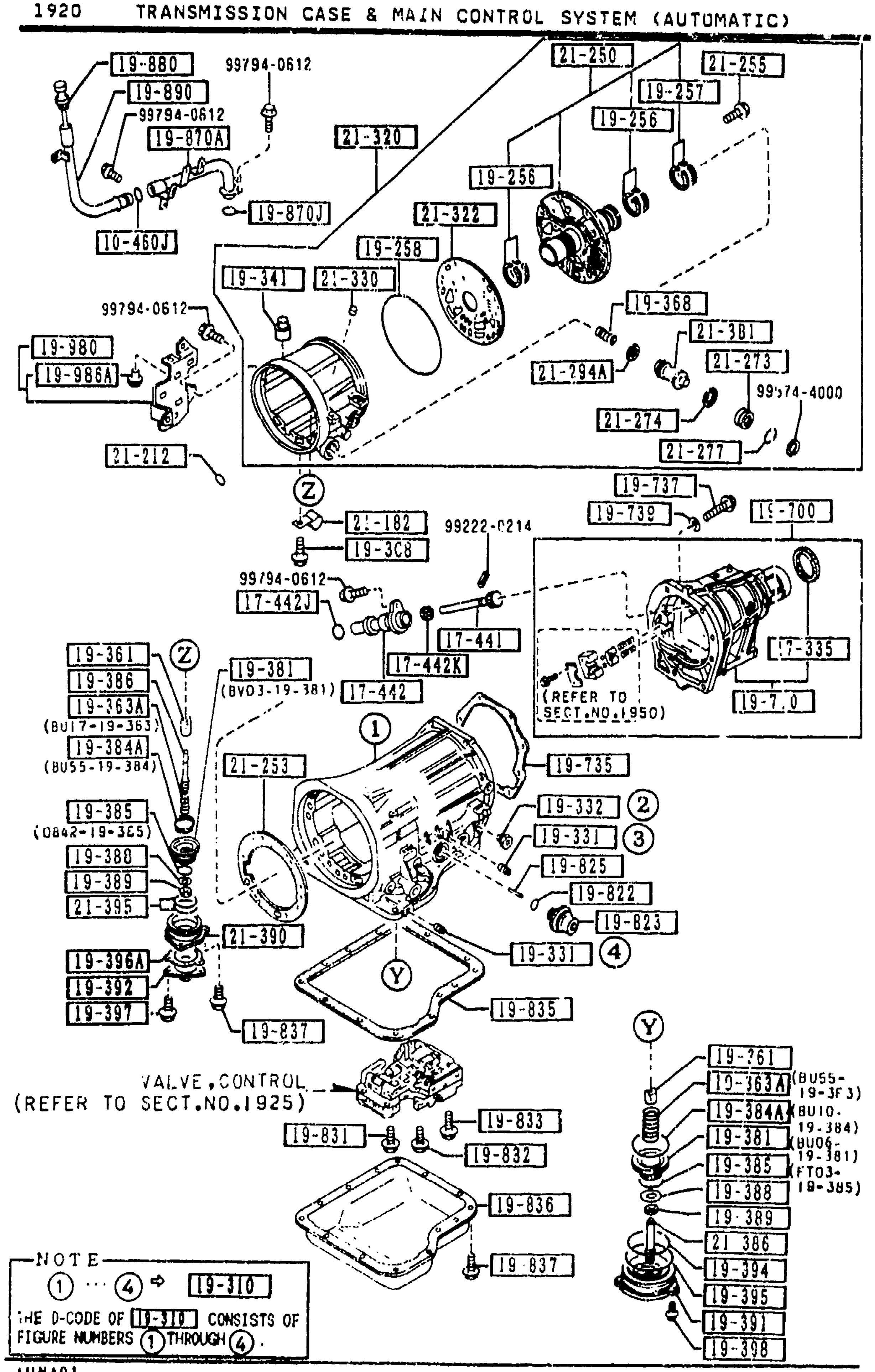
19-256
21-322
19-258
19-341
21-330
19-368
21-3B1
21-294A
21-273
99574-4000
21-274
21-277
99794-0612
19-980
19-986A
21-212
Z
21-182
19-308
99222-0214
19-737
19-739
19-700
99794-0612
17-442J
17-441
17-442K
17-442
17-335
(REFER TO SECT.NO.1950)
19-710
19-361
19-386
19-363A
(BU17-19-363)
19-384A
(BU55-19-384)
19-381
(BV03-19-381)
Z
1
21-253
19-735
19-332
2
19-331
3
19-825
19-822
19-823
19-385
(0842-19-385)
19-388
19-389
21-395
21-390
19-396A
19-392
19-397
19-331
4
Y
19-835
19-837
VALVE,CONTROL
(REFER TO SECT.NO.1925)
19-833
19-831
19-832
19-836
19-837
Y
19-361
19-363A (BU55-19-3F3)
19-384A (BU10-19-384)
19-381 (BU06-19-381)
19-385 (FT03-19-385)
19-388
19-389
21-386
19-394
19-395
19-391
19-398

NOTE
① ··· ④ ⇨ 19-310
THE D-CODE OF 19-310 CONSISTS OF FIGURE NUMBERS ① THROUGH ④.

1920 -2 TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-361		STRUT,BAND			
0338-19-361B	2				
19-363A		SPRING,PISTON RETURN			
BU55-19-3F3	1				
BU17-19-363	1				
19-368		SPRING,CUSHION-PSTN. STEM			
BU20-19-368	1				
19-381		PISTON,BAND SERVO			
BU06-19-381	1				
BV03-19-381	1				
19-384A		SEAL,PISTON			
BU10-19-384	1				
BU55-19-384	1				
19-385		SEAL,PISTON			
FT03-19-385	1	D=44MM			
0842-19-385	1	D=36MM			
19-386		STEM,PISTON			
0338-19-386A	1				
19-388		WASHER,PLAIN			
0338-19-388A	2				
19-389		NUT			
0338-19-389	2				
19-391		RETAINER,SERVO			
BU06-19-391	1				
19-392		COVER,SERVO			
1758-19-392A	1				
19-394		SEAL,LATHE CUT			
0842-19-394	1				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19-890
99794-0612
19-870A
21-320
19-870J
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21-250
21-255
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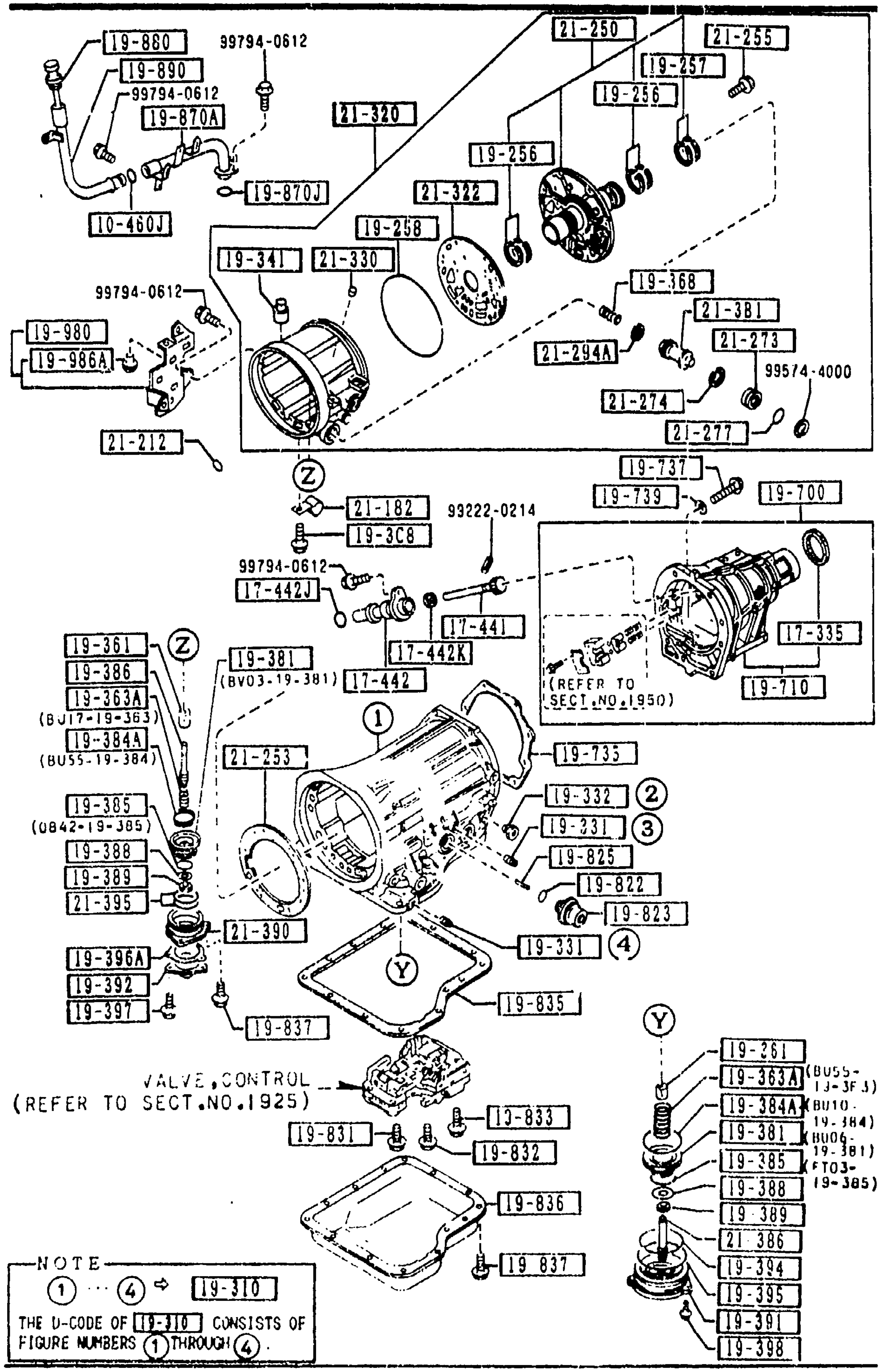
19-256
21-322
19-258
19-341
21-330
19-368
21-381
21-294A
21-273
99574-4000
21-274
21-277
99794-0612
19-980
19-986A
21-212
Z
21-182
19-308
99222-0214
19-737
19-739
19-700
99794-0612
17-442J
17-441
17-442K
17-442
17-335
19-710
(REFER TO SECT.NO.1950)
19-361
19-386
19-363A
(BU17-19-363)
19-384A
(BU55-19-384)
19-381
(BV03-19-381)
1
21-253
19-735
19-332
2
19-331
3
19-825
19-822
19-823
19-385
(0842-19-385)
19-388
19-389
21-395
21-390
19-396A
19-392
19-397
19-331
4
Y
19-835
19-837
VALVE,CONTROL
(REFER TO SECT.NO.1925)
19-833
19-831
19-832
19-836
19-837
Y
19-361
19-363A (BU55-19-363)
19-384A (BU10-19-384)
19-381 (BU06-19-381)
19-385 (FT03-19-385)
19-388
19-389
21-386
19-394
19-395
19-391
19-398
NOTE
① ··· ④ ⇒ 19-310
THE D-CODE OF 19-310 CONSISTS OF FIGURE NUMBERS ① THROUGH ④.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-395		RING,'O'			
0338-19-395	1				
19-396A		GASKET			
1758-19-394A	1	ASBESTOS			
19-397		BOLT			
1758-19-397	3				
19-398		BOLT			
0338-19-398	3				
19-700		HOUSING,EXTENSION			
BUY2-19-7A0	1				
19-710		HOUSING,EXTENSION			
BU55-19-710	1				
19-735		GASKET,EXTENSION			
0338-19-735	1	ASBESTOS			
19-737		BOLT			
0338-19-737	8				
19-739		WASHER,PLAIN			
0338-19-739	8				
19-822		SEAL,'O'RING			
0338-19-822	2				
19-823		DIAPHRAGM,VACUUM			
BU55-19-823	1				
19-825		ROD,DIAPHRAGM			
BU55-19-825	1	L=29.75MM			
0338-19-825	1	L=30MM			
0338-19-826	1	L=31MM			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99794-0612
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19-257
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19-870J
10-460J
19-258
19-341
21-330
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21-381
99794-0612
21-294A
21-273
19-980
19-986A
99574-4000
21-274
21-277
21-212
Z
19-737
19-739
19-700
21-182
93222-0214
19-308
99794-0612
17-442J
17-441
17-335
17-442K
(REFER TO SECT.NO.1950)
19-710
19-361
Z
19-381
(BV03-19-381)
17-442
19-386
19-363A
(BU17-19-363)
19-384A
(BU55-19-384)
1
21-253
19-735
19-385
(0842-19-385)
19-332
2
19-331
3
19-825
19-388
19-389
21-395
19-822
19-823
21-390
19-331
4
19-396A
19-392
19-397
Y
19-837
19-835
VALVE,CONTROL
(REFER TO SECT.NO.1925)
19-833
19-831
19-832
19-836
19-837
Y
19-261
19-363A
(BU55-19-363)
19-384A
(BU10-19-384)
19-381
(BU06-19-381)
19-385
(FT03-19-385)
19-388
19-389
21-386
19-394
19-395
19-391
19-398

NOTE

① ··· ④ ⇨ 19-310

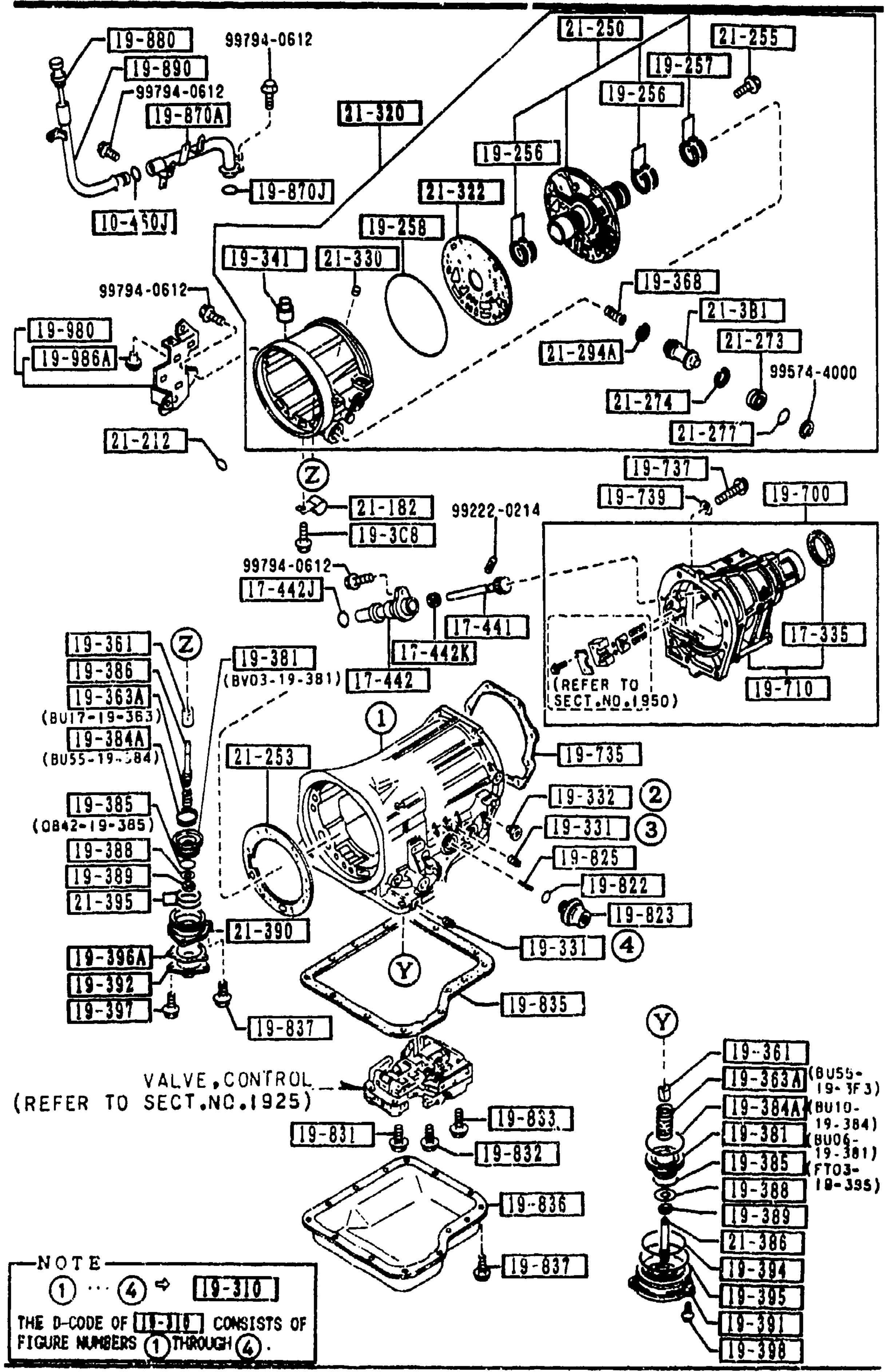
THE U-CODE OF 19-310 CONSISTS OF FIGURE NUMBERS ① THROUGH ④.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
0338-19-827	1	L=30.5MM			
0338-19-828	1	L=29MM			
0338-19-829	1	L=29.5MM			
19-831		BOLT,CONTROL VALVE			
0338-19-831	2				
19-832		BOLT,CONTROL VALVE			
0338-19-832	2				
19-833		BOLT,CONTROL VALVE			
0338-19-833	3				
19-835		GASKET,OIL PAN			
0338-19-835B	1	ASBESTOS			
19-836		PAN,OIL			
0338-19-836A	1				
19-837		BOLT,OIL PAN			
0338-19-837	17				
19-870A		TUBE,FILLER			
BU55-19-870	1				
19-870J		RING,'O'			
99541-01601	1				
19-880		GAUGE,OIL LEVEL			
BU17-19-880B	1				
19-890		TUBE,OIL FILTER-UPPER			
BU55-19-890	1				
19-980		BRACKET			
BU55-19-980A	1				
19-986A		BUSH,RUBBER			

SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-I03	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON,CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-I04	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1560	BRACKET,PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-I08	1930	CLUTCHES & PLANETARY GEARS (AUTOMATIC)						
1-D09	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMATIC)						
1-I09	1960	GASKET & SEAL KIT (AUTOMATIC)						

1920 TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)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(REFER TO SECT.NO.1950)
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(BU17-19-363)
19-384A
(BU55-19-384)
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(BV03-19-381)
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(0842-19-385)
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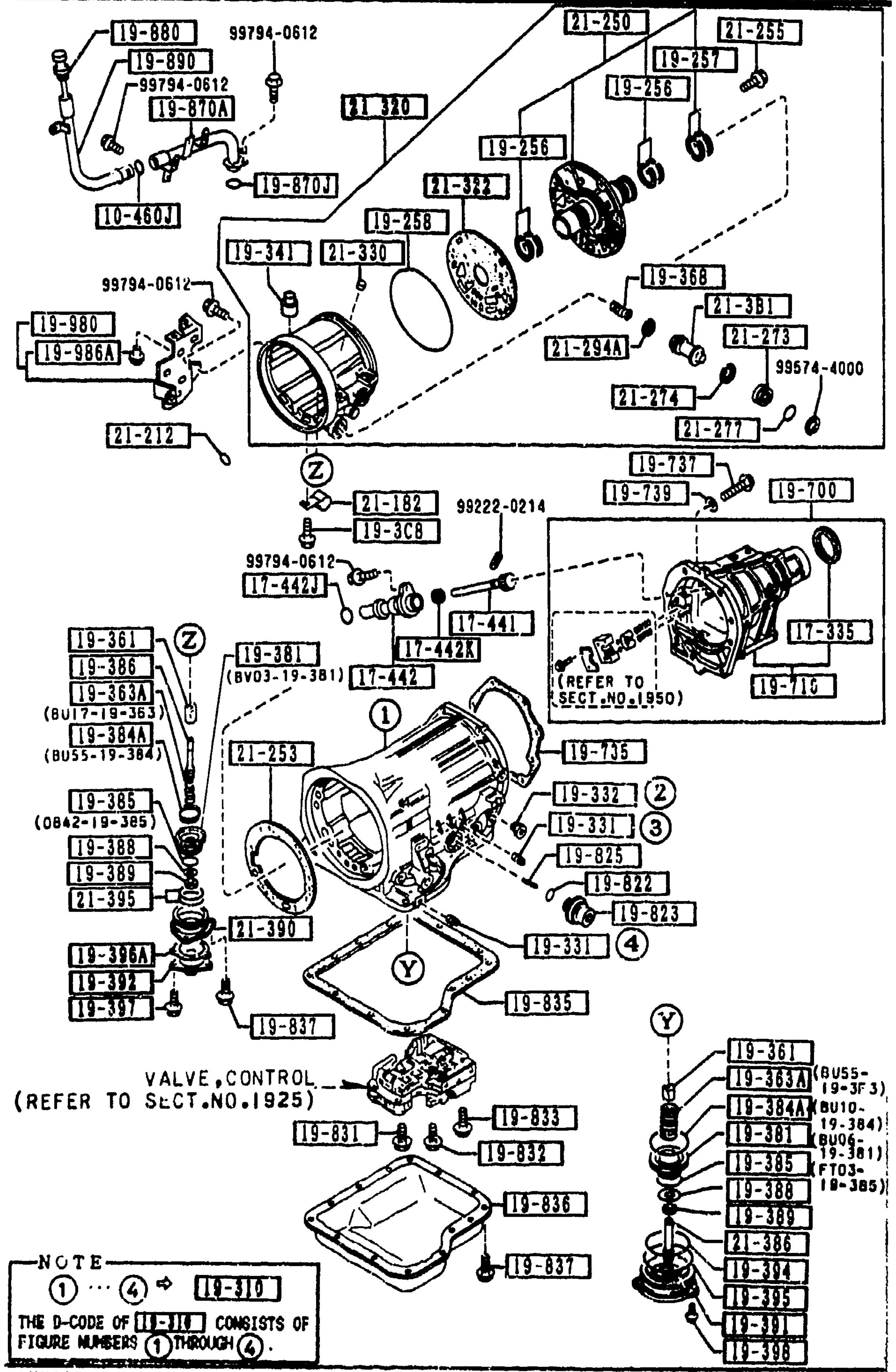
19-825
19-388
19-389
21-395
19-822
19-823
21-390
19-331
4
19-396A
19-392
19-397
Y
19-835
19-837
VALVE,CONTROL
(REFER TO SECT.NO.1925)
19-833
19-831
19-832
Y
19-361
19-363A (BU55-19-363)
19-384A (BU10-19-384)
19-381 (BU06-19-381)
19-385 (FT03-19-385)
19-388
19-389
21-386
19-394
19-395
19-391
19-398
19-836
19-837

NOTE
① ··· ④ ⇨ 19-310
THE D-CODE OF 19-310 CONSISTS OF FIGURE NUMBERS ① THROUGH ④.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D BV01-19-986	1				
21-182		BRACKET			
BU55-21-182	1				
21-212		RING,'O'			
BU01-21-212	2				
21-250		SUPPORT,DRUM			
BU55-21-250	1				
21-253		GASKET,DRUM SUPPORT			
BU01-21-253	1	ASBESTOS			
21-255		BOLT			
BU01-21-255	5				
21-273		PLUG,ACCUMLATOR			
BU01-21-273	1				
21-274		SEAL,'O'RING			
BU01-21-274	1				
21-277		RING,'O'			
BU01-21-277	1				
21-294A		RING,SEAL			
BU55-21-293	1				
21-381		PISTON,ACCUMLATOR			
BU55-21-381	1				
21-320		CASE,OVER DRIVE			
BU55-21-320	1				
21-322		GASKET,O/DRIVE CASE			
BU01-21-322	1				
21-330		VALVE,ONE WAY			
BV01-21-330	1				

1920 TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)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19-3C8
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19-737
19-739
19-700
99794-0612
17-442J
17-441
17-442K
17-442
17-335
(REFER TO SECT.NO.1950)
19-710
19-361
Z
19-386
19-381
(BV03-19-381)
19-363A
(BU17-19-363)
19-384A
(BU55-19-384)
①
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21-253
19-385
(0842-19-385)
19-332 ②
19-331 ③
19-825
19-388
19-389
21-395
19-822
19-823
21-390
19-331 ④
19-396A
Y
19-392
19-397
19-835
19-837
VALVE,CONTROL (REFER TO SECT.NO.1925)
Y
19-361
19-363A (BU55-19-3F3)
19-384A (BU10-19-384)
19-381 (BU06-19-381)
19-385 (FT03-19-385)
19-388
19-389
21-386
19-394
19-395
19-391
19-398
19-833
19-831
19-832
19-836
19-837

NOTE

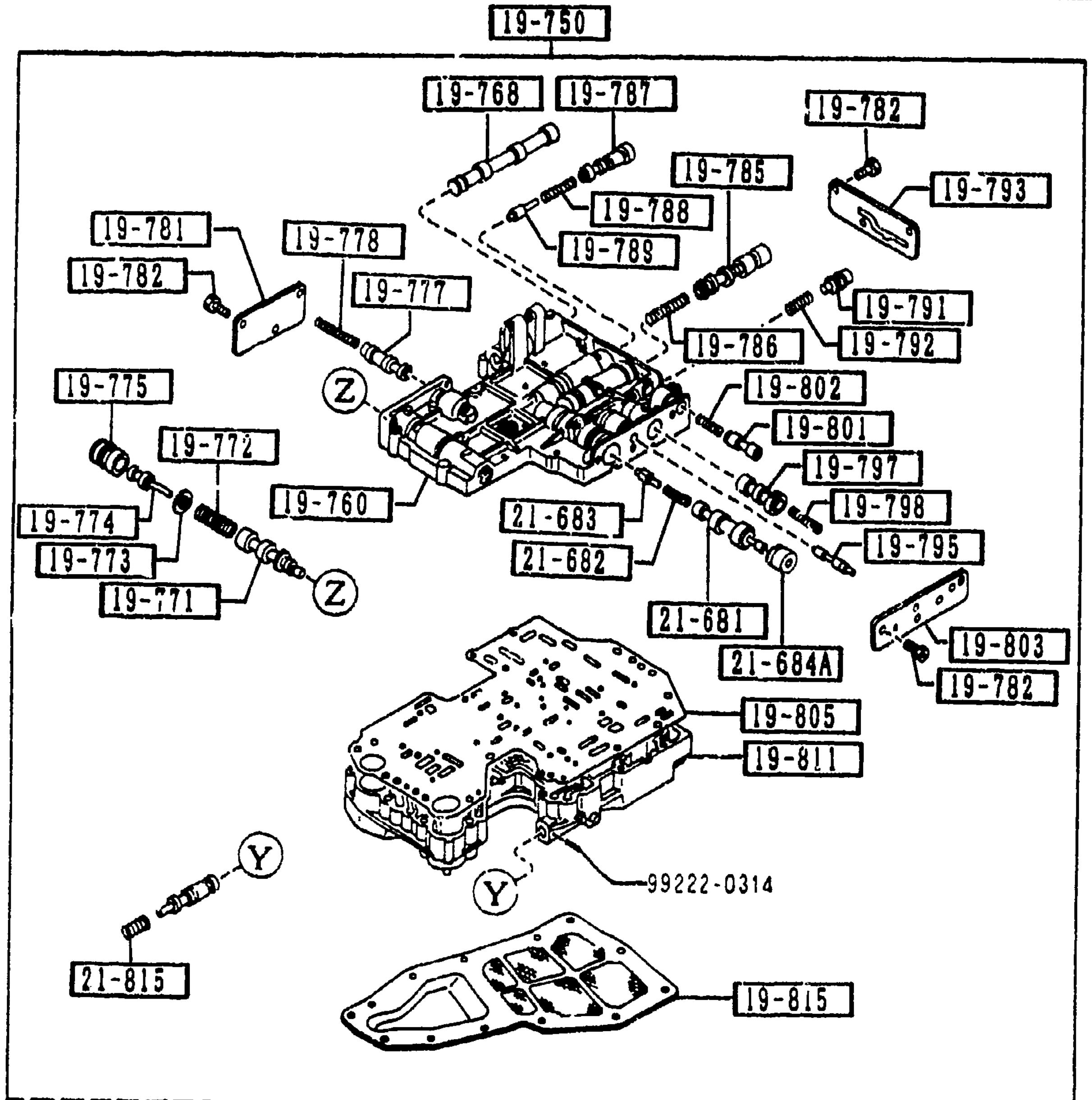
① ··· ④ ⇨ 19-310

THE D-CODE OF 19-310 CONSISTS OF FIGURE NUMBERS ① THROUGH ④.

AUNA01

1920 -6 M TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
21-386		STEM,PISTON BAND			
BU01-21-386	1				
21-390		SERVO,OVER DRIVE			
BU20-21-390	1				
21-395		RING,'O'			
BU01-21-395	2				


19-750
19-768
19-787
19-782
19-785
19-788
19-793
19-789
19-781
19-778
19-782
19-777
19-791
19-786
19-792
19-775
Z
19-802
19-801
19-772
19-797
19-760
21-683
19-798
19-774
21-682
19-795
19-773
Z
19-771
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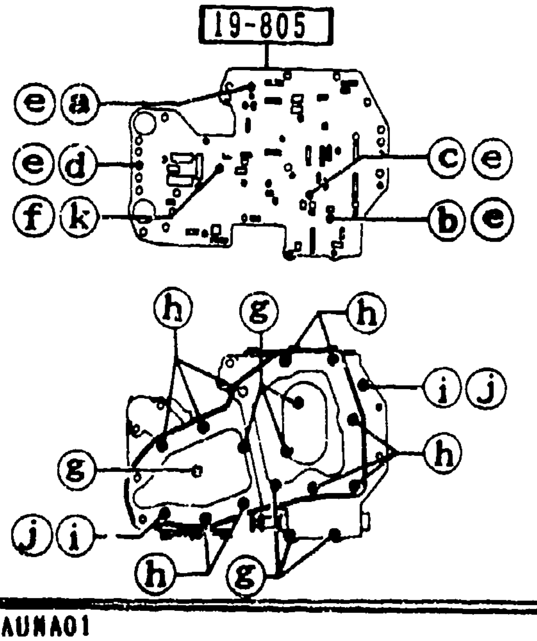
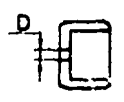
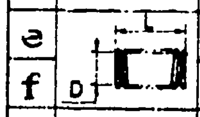
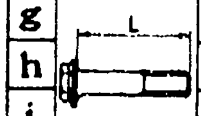
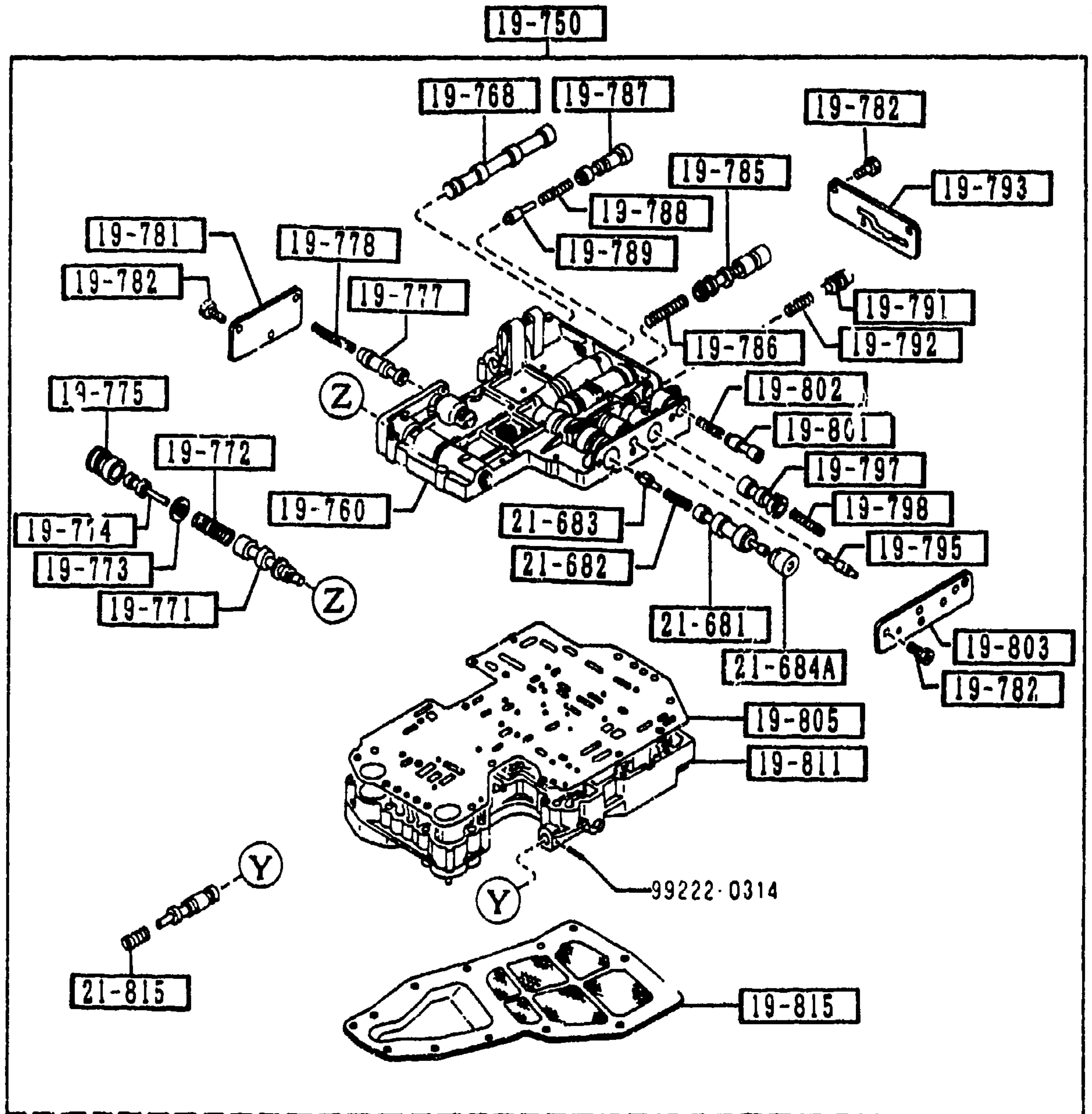
19-782
19-805
19-811
Y
Y
99222-0314
21-815
19-815


19-805
e a
e d
f k
c e
b e
h
g
h
i j
g
h
j i
h
g

a		19-8A3	D=1.1MM
b		19-8B1	D=2.0MM
c		19-807	D=1.5MM(BU01-19-807)
d		19-807	D=1.8MM(BU17-19-807)
e		19-808	D=4.77MM,L=15.5MM
f		19-814	D=5.6MM,L=26.9MM
g		19-816	M5,L=25MM
h		19-817	M5,L=40MM
i		19-818	M6,L=57MM
j		19-819	
k		99611-2000	

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-750 BU55-19-750	1	VALVE,CONTROL			
19-760 BU55-19-760	1	BODY,CONTROL VALVE-UP			
19-768 0338-19-768	1	VALVE,MANUAL			
19-771 BU01-19-771	1	VALVE,REGULATER			
19-772 0338-19-772	1	SPRING,REGULATER			
19-773 0338-19-773	1	SEAT,REGULATER SPRING			
19-774 BU55-19-774	1	PLUG,REGULATER			
19-775 BU55-19-775	1	SLEEVE,REGULATER PLUG			
19-777 0338-19-777	1	VALVE,SECOND LOCK			
19-778 0338-19-778	1	SPRING,SECOND LOCK			
19-781 1758-19-781	1	PLATE,SIDE'D'			
19-782 0338-19-782	9	SCREW			
19-785 BU55-19-785	1	VALVE,1-2 SHIFT			
19-786 BU55-19-786	1	SPRING,1-2 SHIFT			

1925 CONTROL VALVE (AUTOMATIC)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19-787
19-782
19-785
19-793
19-788
19-789
19-781
19-782
19-778
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19-771
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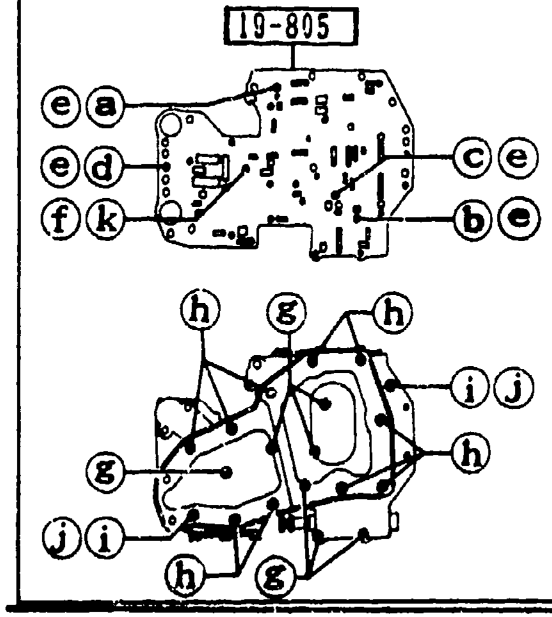
Y


19-805
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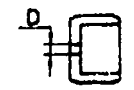
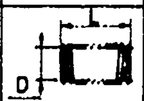
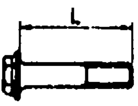
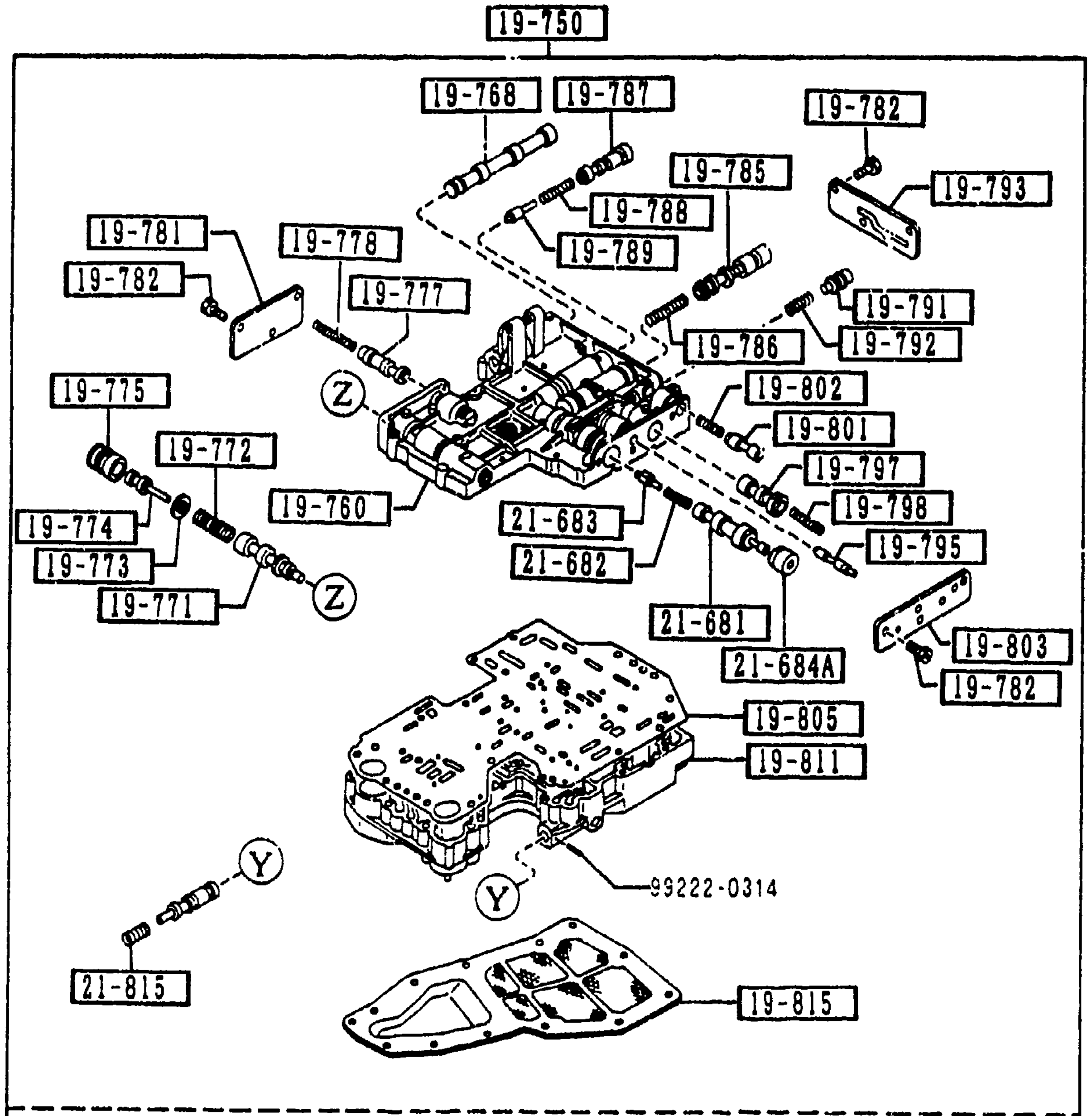
e d
f k
c e
b e
h
g
h
j j
g
h
j i
h
g

a		19-8A3	D=1.1MM
b		19-8B1	D=2.0MM
c		19-807	D=1.5MM (BU01-19-807)
d		19-807	D=1.8MM (BU17-19-807)
e		19-808	D=4.77MM,L=15.5MM
f		19-814	D=5.6MM,L=26.8MM
g		19-816	M5,L=25MM
h		19-817	M5,L=40MM
i		19-818	M6,L=57MM
j		19-819	
k		99611-2000	

1925 -2 CONTROL VALVE (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-787 BU55-19-787	1	VALVE,2-3 SHIFT			
19-788 FT21-19-788	1	SPRING,2-3 SHIFT			
19-789 FT13-19-789	1	PLUG,2-3 SHIFT			
19-791 FT27-19-791A	1	VALVE,MODIFIER			
19-792 FT37-19-792	1	SPRING,MODIFIER			
19-793 0338-19-793A	1	PLATE,SIDE'A'			
19-795 0338-19-795B	1	VALVE,THROTTLE			
19-797 0338-19-797	1	VALVE,THROTTLE BACK-UP			
19-798 0338-19-798	1	SPRING,THROTTLE BACK-UP			
19-8A3 BV01-19-8A3	1	VALVE,ORIFICE CHECK			
19-8B1 BV01-19-8B1	1	VALVE,ORIFICE CHECK			
19-801 0338-19-801	1	VALVE,DOWN SHIFT			
19-802 0338-19-802	1	SPRING,DOWN SHIFT			
19-803 BU01-19-803A	1	PLATE,SIDE'B'			


19-750
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19-788
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19-781
19-782
19-778
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19-791
19-792
19-786
19-775
Z
19-802
19-801
19-772
19-797
19-798
19-760
21-683
19-795
19-774
21-682
19-773
19-771
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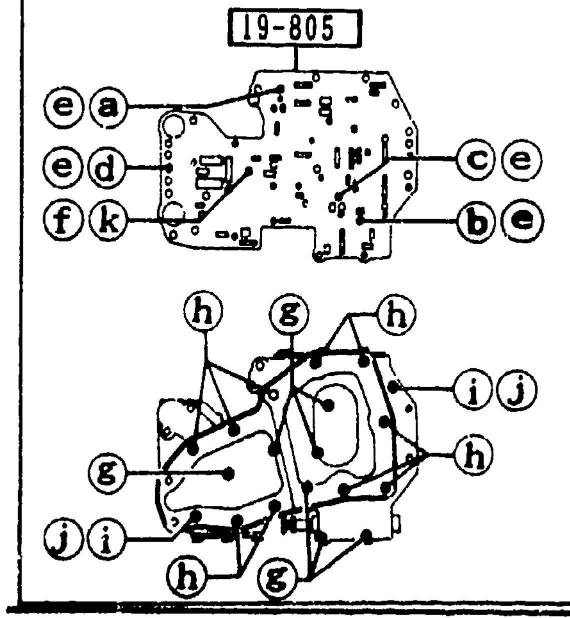
99222-0314
21-815
19-815


19-805
e
a
e
d
f
k
c
e
b
e
h
g
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i
j
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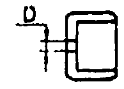
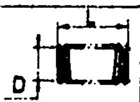
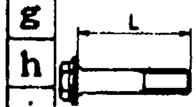
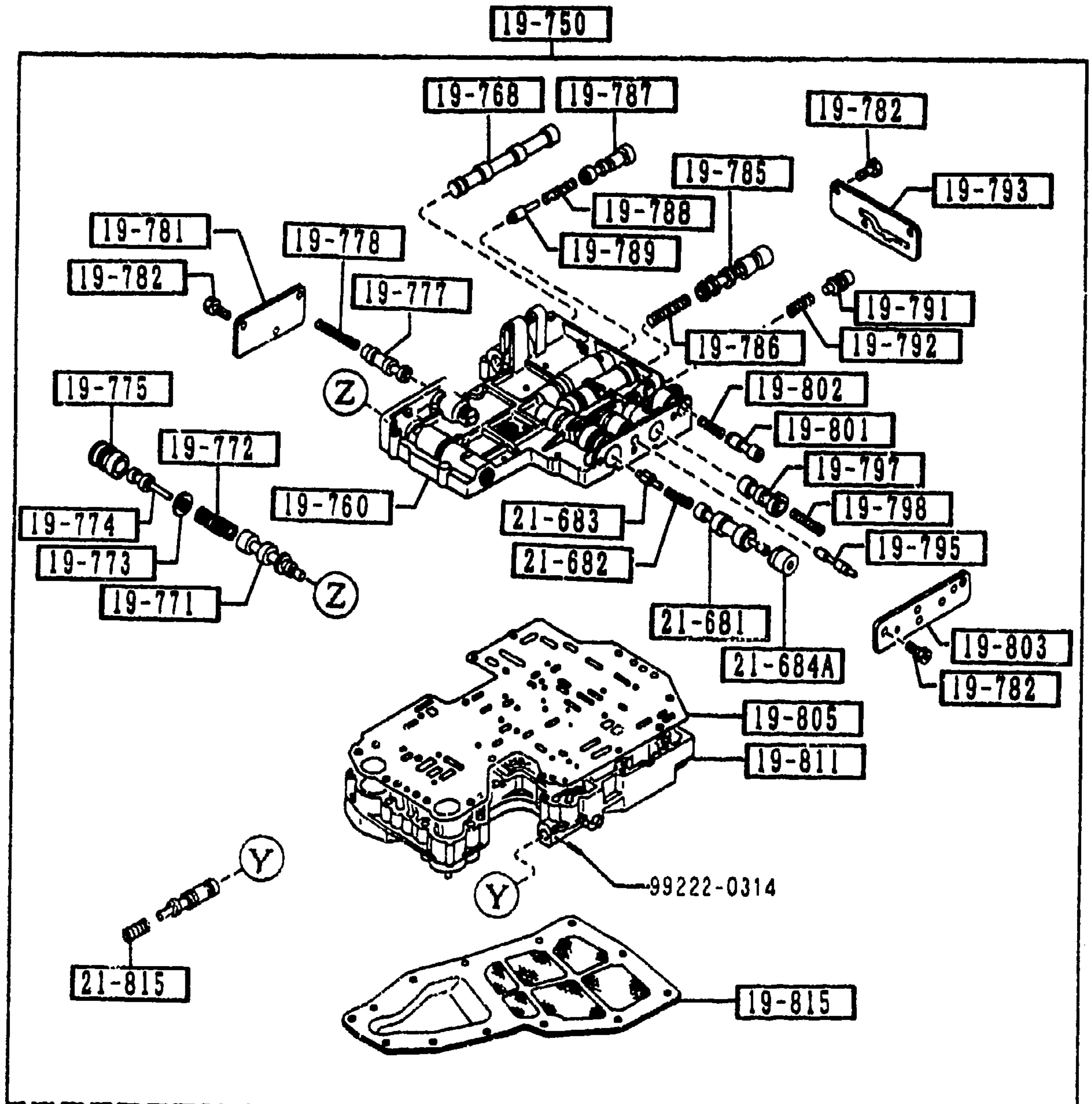
g

a	 	19-8A3	D=1.1MM
b		19-8B1	D=2.0MM
c		19-807	D=1.5MM(BU01-19-807)
d		19-807	D=1.8MM(BU17-19-807)
e	 	19-808	D=4.77MM,L=15.5MM
f		19-814	D=5.6MM,L=26.8MM
g	 	19-816	M5,L=25MM
h		19-817	M5,L=40MM
i		19-818	M6,L=57MM
j		19-819	
k		99611-2000	

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-805		PLATE,SEPARATOR			
BU55-19-805	1				
19-807		VALVE,ORIFICE CHECK			
BU01-19-807	1				
BU17-19-807	1				
19-808		SPRING			
0338-19-808	4				
19-811		BODY,VALVE LWR			
BU10-19-811	1				
19-814		SPRIING			
0338-19-814	1				
19-815		STRAINER,OIL			
BU01-19-815	1				
19-816		SCREW			
0338-19-816	7				
19-817		SCREW			
0338-19-817	10				
19-818		BOLT			
0338-19-818	2				
19-819		NUT			
0338-19-819	2				
21-681		VALVE,SHIFT 3-4			
BU35-21-681A	1				
21-682		SPRING,3-4 SHIFT			
BU35-21-682	1				
21-683		PLUG,3-4 SHIFT			
BU03-21-683A	1				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19-791
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Z
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19-772
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19-760
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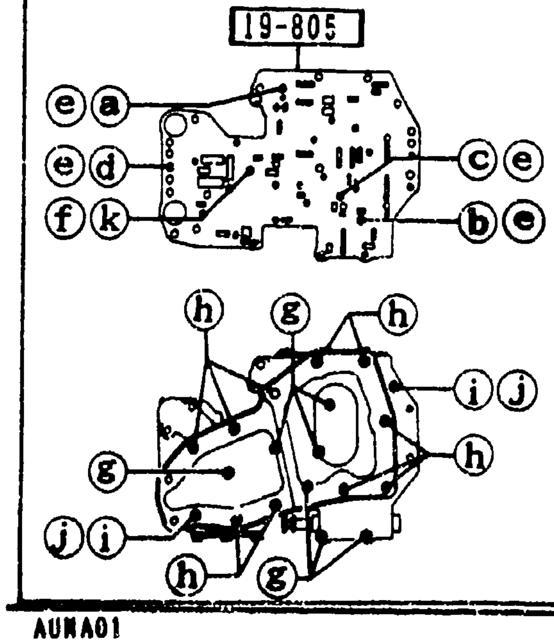
21-815
19-815


19-805
e
a
c
e
e
d
f
k
b
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h
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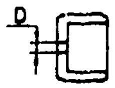
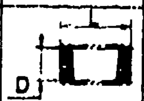
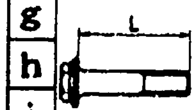
a		19-8A3	D=1.1MM
b		19-8B1	D=2.0MM
c		19-807	D=1.5MM(BU01-19-807)
d		19-807	D=1.8MM(BU17-19-807)
e		19-808	D=4.77MM, L=15.5MM
f		19-814	D=5.6MM, L=26.8MM
g		19-816	M5, L=25MM
h		19-817	M5, L=40MM
i		19-818	M6, L=57MM
j		19-819	
k		99611-2000	

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
21-684A		SLEEVE,3-4 SHIFT			
BU35-21-684	1				
21-815		SPRING,3-2 TIMING			
BU17-21-815	1				

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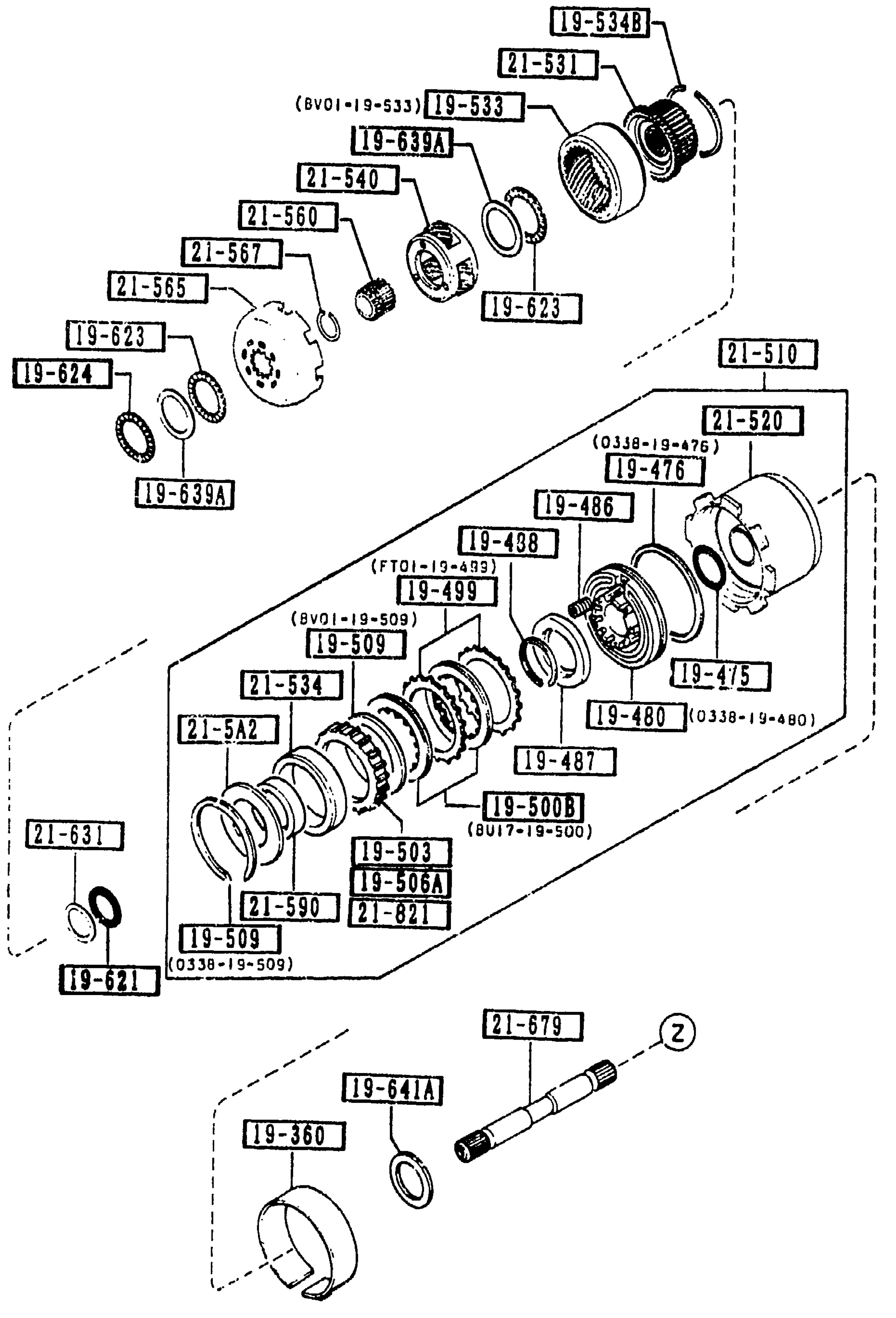
19-534B
21-531
(BV01-19-533) 19-533
19-639A
21-540
21-560
21-567
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19-623
19-624
19-639A
21-510
21-520
(0338-19-476)
19-476
19-486
19-488
(FT01-19-499)
19-499
(BV01-19-509)
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(0338-19-480)
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(BU17-19-500)
19-503
19-506A
21-821
21-590
19-509
(0338-19-509)
21-631
19-621
21-679
Z
19-641A
19-360

(CONT'D)

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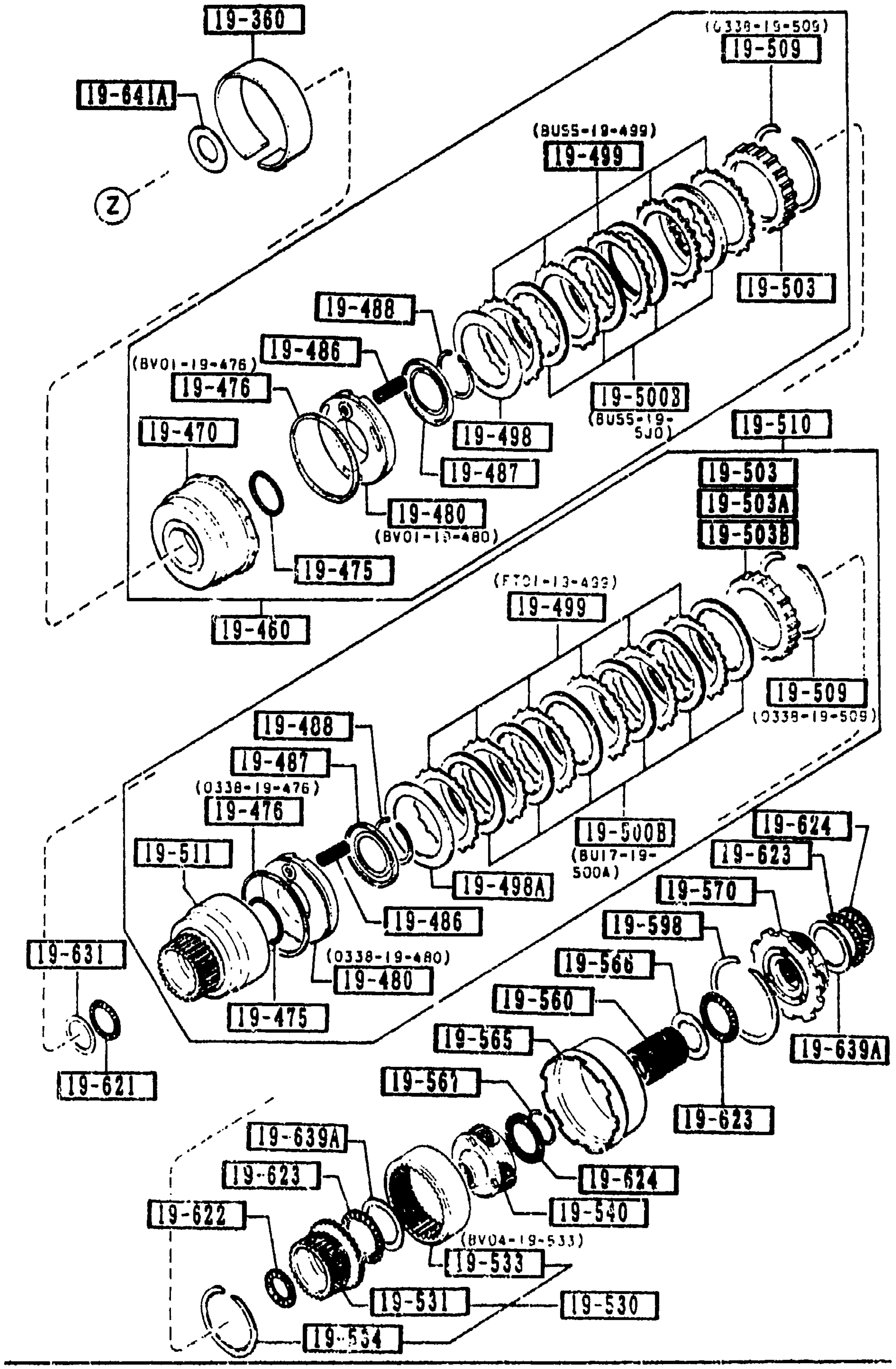
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(BV01-19-476)
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19-470
19-498
19-500B
(BU55-19-500)
19-487
19-480
(BV01-19-480)
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19-509
(0338-19-509)
19-488
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(0338-19-476)
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19-511
19-500B
(BU17-19-500A)
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19-486
(0338-19-480)
19-480
19-475
19-631
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19-624
19-623
19-570
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19-560
19-565
19-639A
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19-567
19-624
19-639A
19-623
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(BV04-19-533)
19-533
19-531
19-530
19-534

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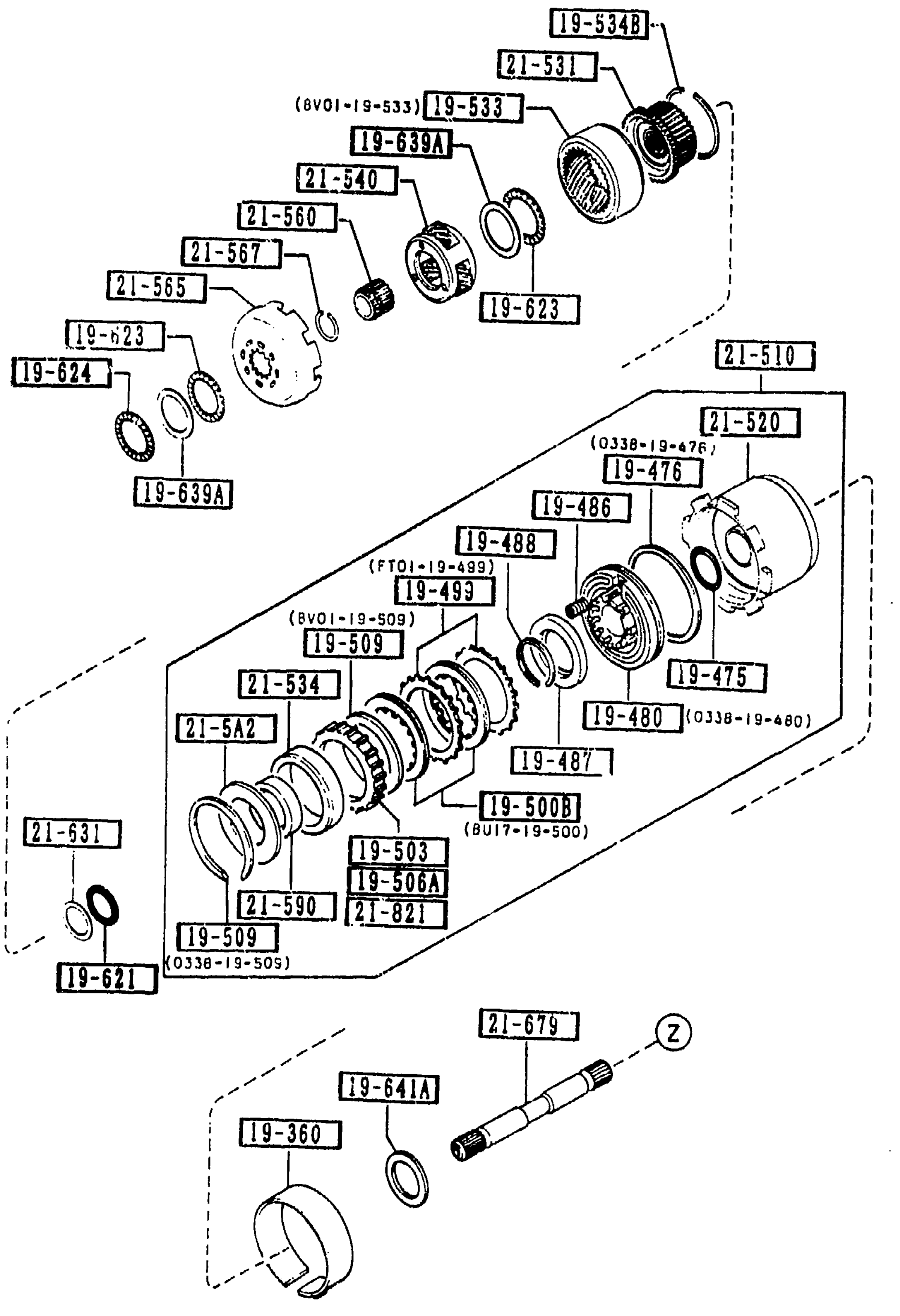
19-534B
21-531
(BV01-19-533) 19-533
19-639A
21-540
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19-639A
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(0338-19-476)
19-476
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19-488
(FT01-19-499)
19-499
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19-509
21-534
21-5A2
19-475
19-480 (0338-19-480)
19-487
19-500B
(BU17-19-500)
19-503
19-506A
21-821
21-590
19-509
(0338-19-509)
21-631
19-621
21-679
Z
19-641A
19-360

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-360		BAND,BRAKE			
0338-19-360B	2				
19-460		CLUTCH,FRONT			
BU55-19-460	1				
19-470		DRUM,CLUTCH			
BU55-19-470	1				
19-475		SEAL,'O'RING			
0338-19-475	3				
19-476		SEAL,LATHE CUT			
BV01-19-476	1				
0338-19-476	2				
19-480		PISTON,CLUTCH			
BV01-19-480	1				
0338-19-480	2				
19-486		SPRING,PISTON RETURN			
0338-19-486	28				
19-487		RETAINER,SPRING			
0338-19-487	3				
19-488		RING,SNAP			
0338-19-488	3				
19-498		PLATE,DISHED			
0338-19-498	1				
19-498A		PLATE,DISHED			
BU17-19-498	1				
19-499		PLATE,DRIVEN			
BU55-19-499	5				
FT01-19-499	8				
19-500B		PLATE,DRIVEN			

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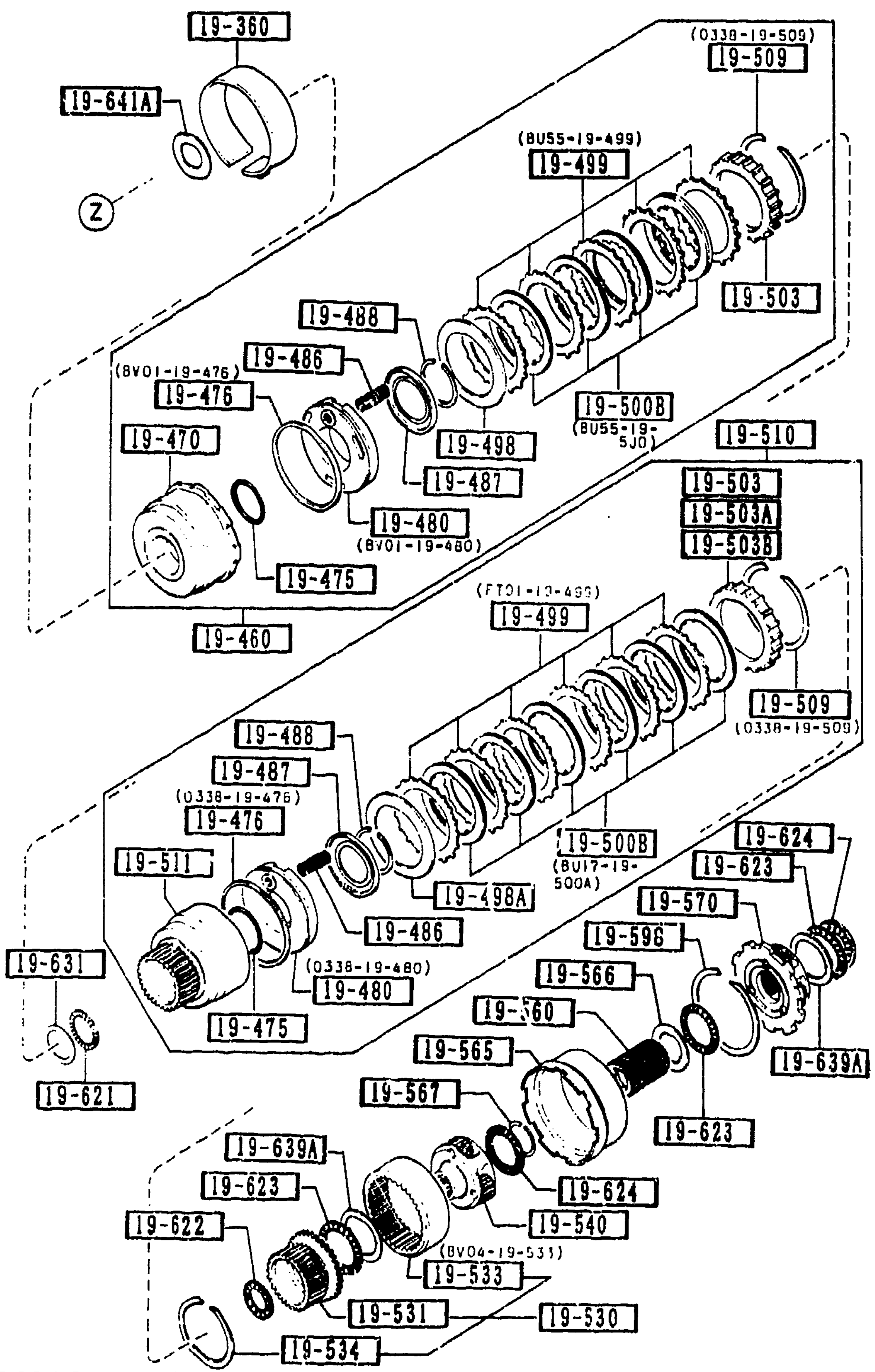
(THIS ILLUSTRATION CONSISTS OF 2 PAGES)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19-509
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19-498
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(BV01-19-480)
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19-503A
19-503B
(FT01-19-499)
19-499
19-509
(0338-19-509)
19-488
19-487
(0338-19-476)
19-476
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19-486
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19-560
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19-639A
19-567
19-623
19-639A
19-623
19-624
19-540
19-622
(BV04-19-533)
19-533
19-531
19-530
19-534

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
BU55-19-5J0	4				
BU17-19-500	8				
19-503		PLATE, RETAINING			
3959-19-503	1	T=5MM			
3959-19-504	1	T=5.2MM			
3959-19-505	1	T=5.4MM			
3959-19-506	2	T=5.6MM			
3959-19-507	2	T=5.8MM			
3959-19-508	2	T=6MM			
3959-19-509	3	T=6.2MM			
19-503A		PLATE, RETAINING			
1758-19-503	1	T=7.2MM			
1758-19-504	1	T=7.4MM			
1758-19-505	1	T=7.6MM			
19-503B		PLATE, RETAINING			
BV02-19-505	1	T=6.4MM			
BV02-19-506	1	T=6.6MM			
BV02-19-507	1	T=6.8MM			
BV02-19-508	1	T=7MM			
19-506A		PLATE, RETAINING			
BU05-21-528	1	T=7MM			
19-509		RING, SNAP			
BV01-19-509	1				
0338-19-509	3				

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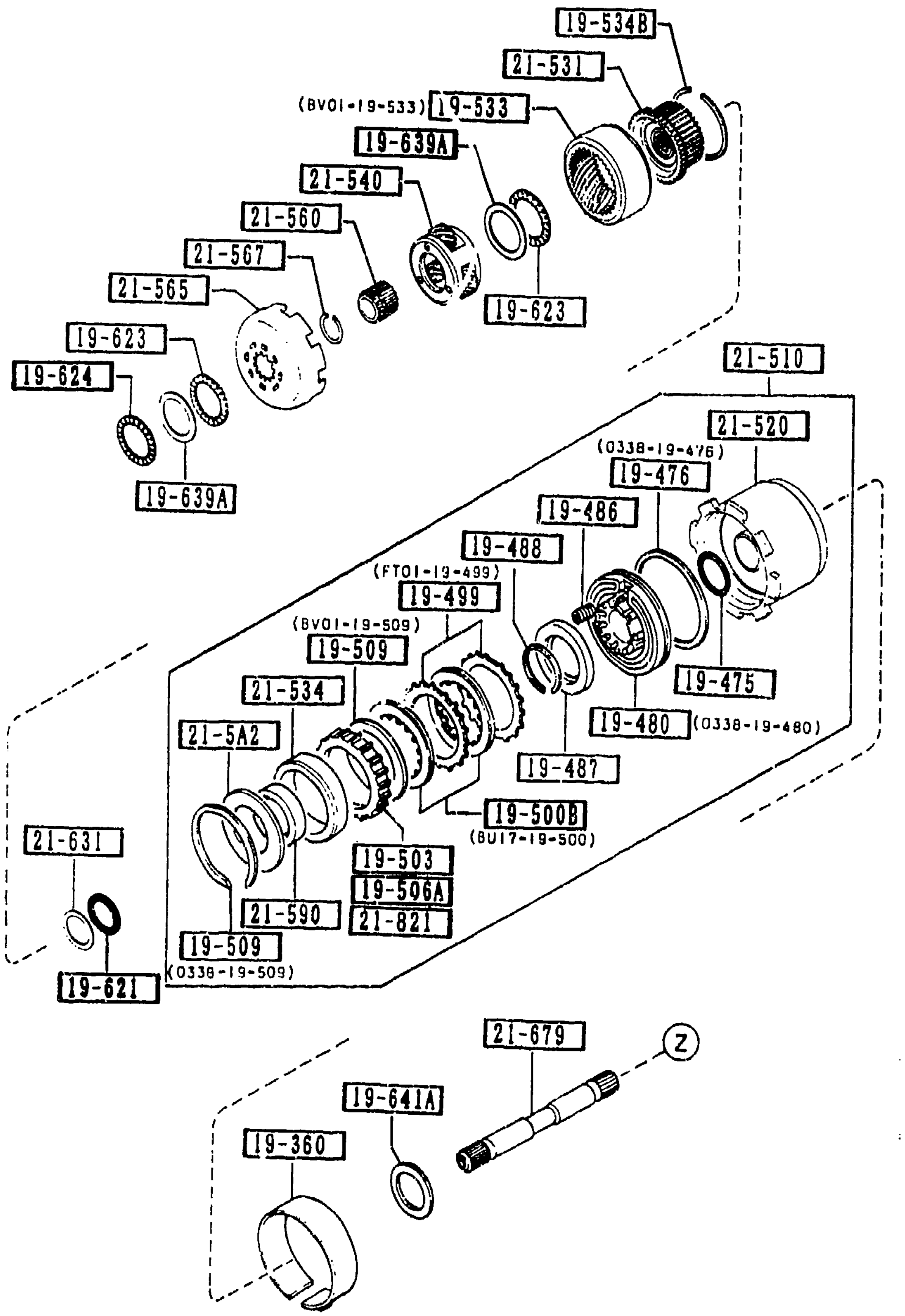
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(BV01-19-533)
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19-639A
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21-567
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19-623
19-624
19-639A
21-510
21-520
(0338-19-476)
19-476
19-486
19-488
(FT01-19-499)
19-499
(BV01-19-509)
19-509
21-534
21-5A2
19-475
19-480
(0338-19-480)
19-487
19-500B
(BU17-19-500)
19-503
19-506A
21-821
21-590
19-509
(0338-19-509)
21-631
19-621
21-679
Z
19-641A
19-360

1930 -3 CLUTCHES & PLANETARY GEARS (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-510		CLUTCH, REAR			
BV01-19-510	1				
19-511		DRUM, REAR CLUTCH			
1758-19-511	1				
19-530		HUB, REAR CLUTCH			
BV04-19-530	1				
19-531		HUB, REAR CLUTCH			
BV04-19-531	1				
19-533		GEAR, INTERNAL			
BV01-19-533	1				
BV04-19-533	1				
19-534		RING, SNAP			
0338-19-534	1				
19-534B		RING, SNAP			
BU03-19-534	1				
19-540		CARRIER, FRONT			
BV01-19-540A	1				
19-560		GEAR, SUN			
BV04-19-560	1				
19-565		SHELL, CONNECTING			
BV04-19-565	1				
19-566		RACE, SHELL BEARING			
BV04-19-566	1				
19-567		RING, SNAP			
BU02-19-567	1				
19-570		CARRIER, REAR			
BV01-19-570A	1				

1930 CLUTCHES & PLANETARY GEARS (AUTOMATIC) (2/2)

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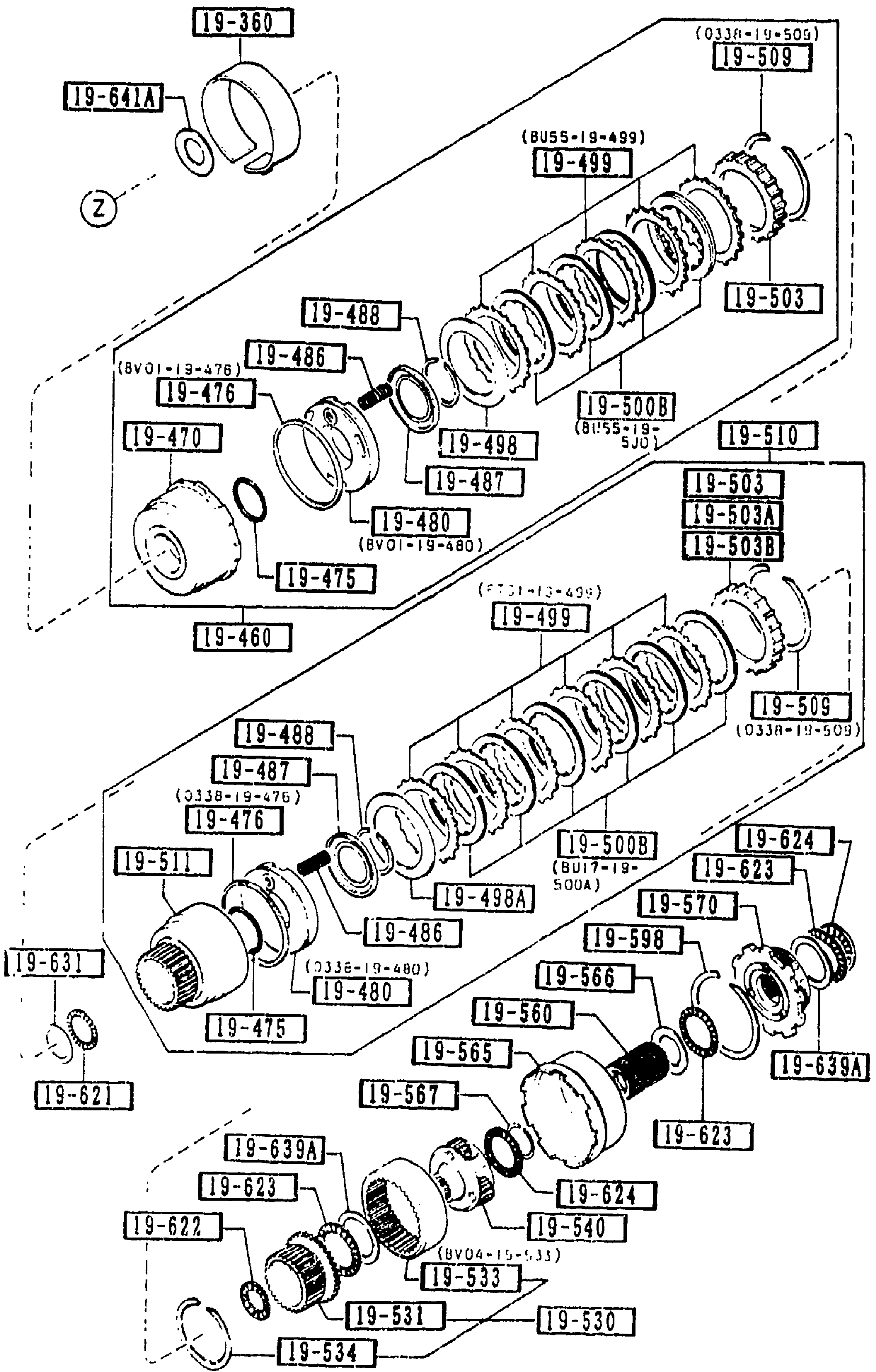
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19-641A
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(BU55-19-499)
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19-503
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19-486
(BV01-19-476)
19-476
19-470
19-498
19-500B
(BU55-19-500)
19-487
19-480
(BV01-19-480)
19-475
19-460
19-510
19-503
19-503A
19-503B
(FT01-19-499)
19-499
19-509
(0338-19-509)
19-488
19-487
(0338-19-476)
19-476
19-511
19-500B
(BU17-19-500A)
19-498A
19-486
(0338-19-480)
19-480
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19-621
19-624
19-623
19-570
19-598
19-566
19-560
19-565
19-639A
19-567
19-623
19-639A
19-623
19-624
19-622
19-540
(BV04-19-533)
19-533
19-531
19-530
19-534

1930 -4 CLUTCHES & PLANETARY GEARS (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-598		RING,SNAP			
0338-19-598	1				
19-621		BEARING,NEEDLE			
0338-19-621	2				
19-622		BEARING,NEEDLE			
FT01-19-622	1				
19-623		BEARING,NEEDLE			
0338-19-623 A (0338-19-623A)	5				-0401
0338-19-623A	5				0401-
19-624		BEARING,NEEDLE			
0338-19-624	3				
19-631		RACE,BRG.PUMP COVER			
0338-19-631	1	T=1.2MM			
0338-19-632	1	T=1.4MM			
0338-19-633	1	T=1.6MM			
0338-19-634	1	T=1.8MM			
0338-19-635	1	T=2MM			
0338-19-636	1	T=2.2MM			
19-639A		RACE,BEARING			
0338-19-639	4				
19-641A		WASHER			
0338-19-641	2	T=1.9MM			
0338-19-642	2	T=2.1MM			
0338-19-643	2	T=2.3MM			
0338-19-644	2	T=2.5MM			

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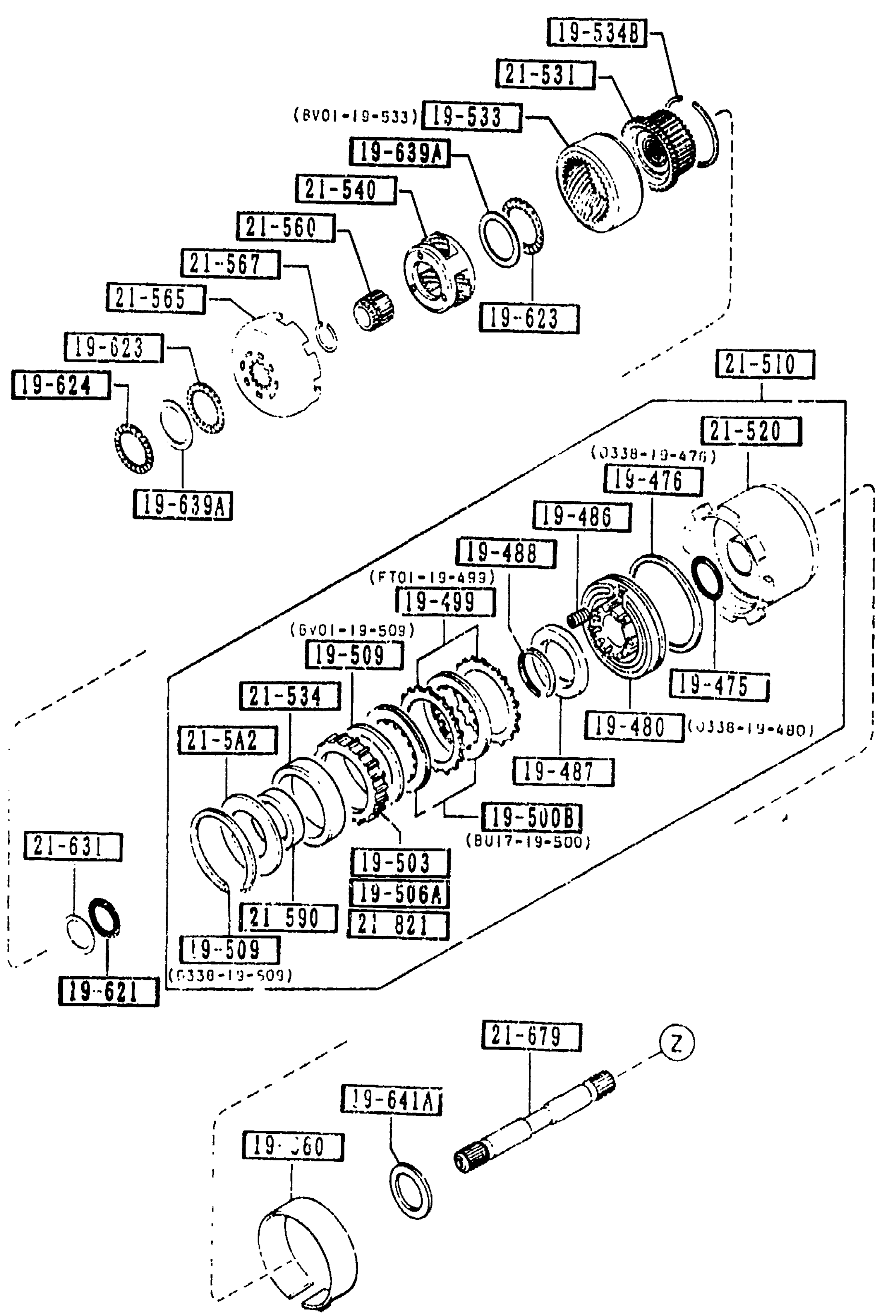
19-534B
21-531
(BV01-19-533) 19-533
19-639A
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21-565
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19-623
19-624
19-639A
21-510
21-520
(0338-19-476)
19-476
19-486
19-488
(FT01-19-499)
19-499
(BV01-19-509)
19-509
21-534
21-5A2
19-475
19-480 (0338-19-480)
19-487
19-500B
(BU17-19-500)
19-503
19-506A
21-821
21-590
19-509
(0338-19-509)
21-631
19-621
21-679
Z
19-641A
19-560

(CONT'D)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
0338-19-645	2	T=2.7MM			
0338-19-646	2	T=1.5MM			
0338-19-647	2	T=1.7MM			
0338-19-648	2	T=1.3MM			
21-5A2		RECE,SIDE-ONE WAY CLUTCH			
BV01-21-5A2	1	T=0.6MM			
BV01-21-5A3	1	T=0.8MM			
BV01-21-5A4	1	T=1MM			
BV01-21-5A5	1	T=1.2MM			
BV01-21-535	1	T=0.4MM			
21-510		CLUTCH,DIRECT			
BU55-21-510	1				
21-520		DRUM,DIRECT			
BU55-21-5A0	1				
21-531		HUB,O/DRIVE CLUTCH			
BV01-21-536	1				
21-534		RACE,OUTER-ONE WAY CLUTCH			
BV01-21-534	1				
21-540		CARRIER,OVER DRIVE			
BU03-21-540	1				
21-560		GEAR,OVER DRIVE			
BU03-21-560	1				
21-565		CONNECTING,SHELL			
BU03-21-565	1				
21-567		RING,SNAP			

SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-I03	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON,CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-I04	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET,PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-I08	1930	CLUTCHES & PLANETARY GEARS (AUTOMATIC)						
1-D09	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMATIC)						
1-I09	1960	GASKET & SEAL KIT (AUTOMATIC)						

1930 CLUTCHES & PLANETARY GEARS (AUTOMATIC) (2/2)

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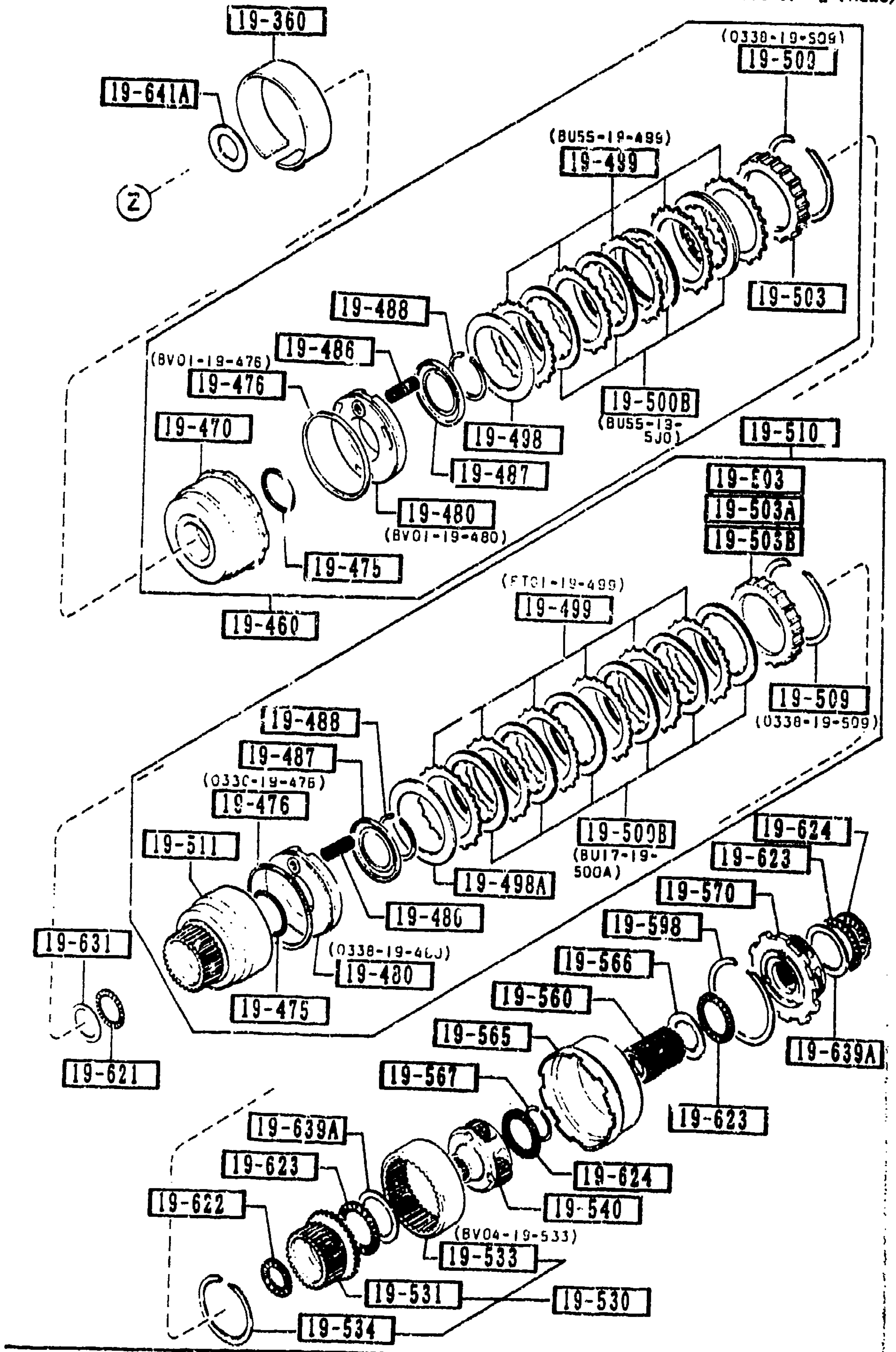
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19-503A
19-503B
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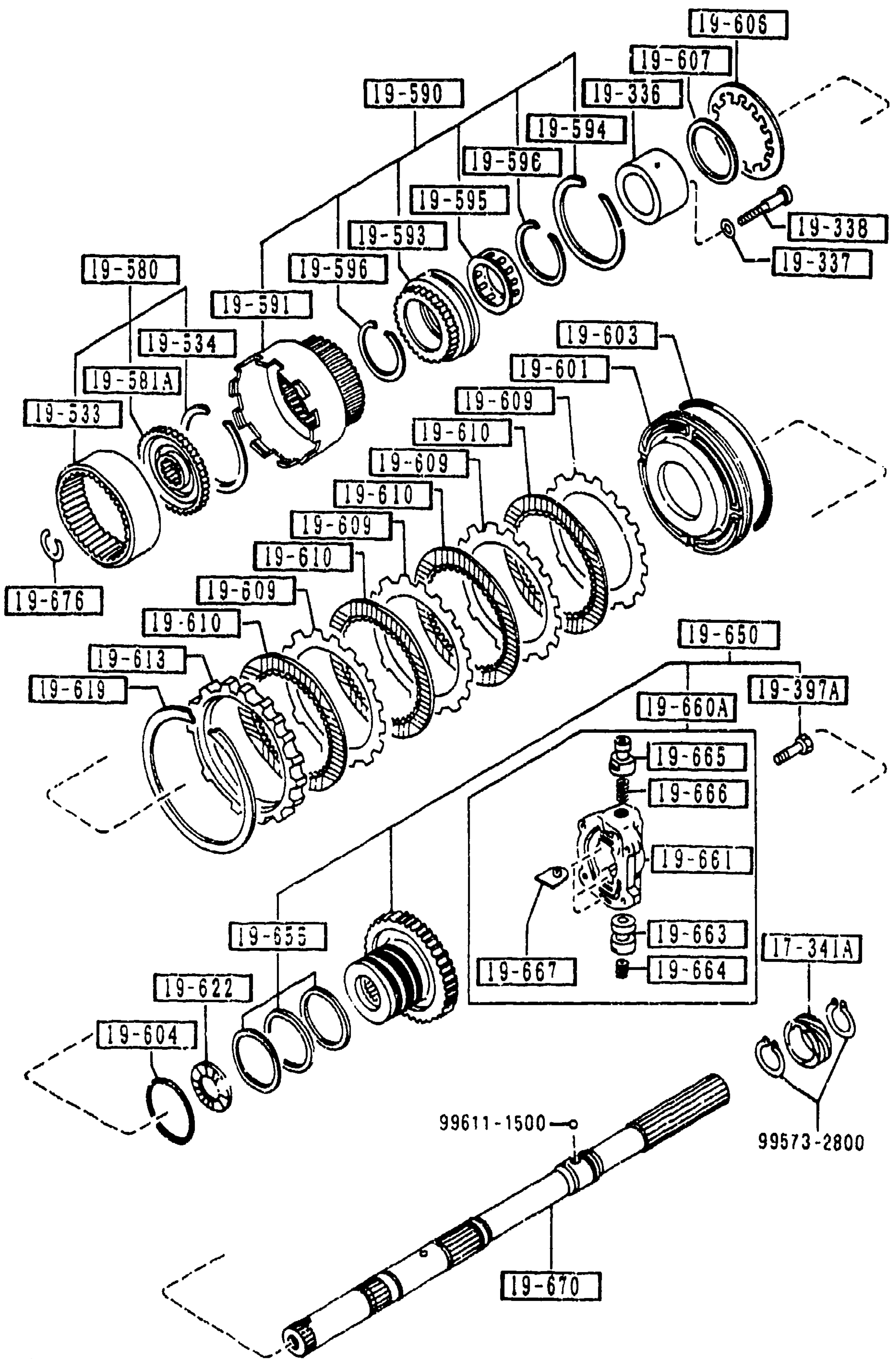
19-565
19-567
19-639A
19-623
19-639A
19-623
19-622
19-624
19-540
(BV04-19-533)
19-533
19-531
19-530
19-534

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D BU03-21-567	1				
21-590		CLUTCH, ONE WAY			
BV01-21-533	1				
21-631		RACE, BRG. HUB CLUTCH			
BU01-21-631	1	L=1.2MM			
BU01-21-632	1	L=1.4MM			
BU01-21-633	1	L=1.6MM			
BU01-21-634	1	L=1.8MM			
BU01-21-635	1	L=2MM			
BU01-21-636	1	L=2.2MM			
21-679		SHAFT, INTERMEDIATE			
BU01-21-679	1				
21-821		PLATE, RETAINING			
BV01-21-821A	1				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19-581A
19-601
19-533
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19-676
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19-610
19-650
19-613
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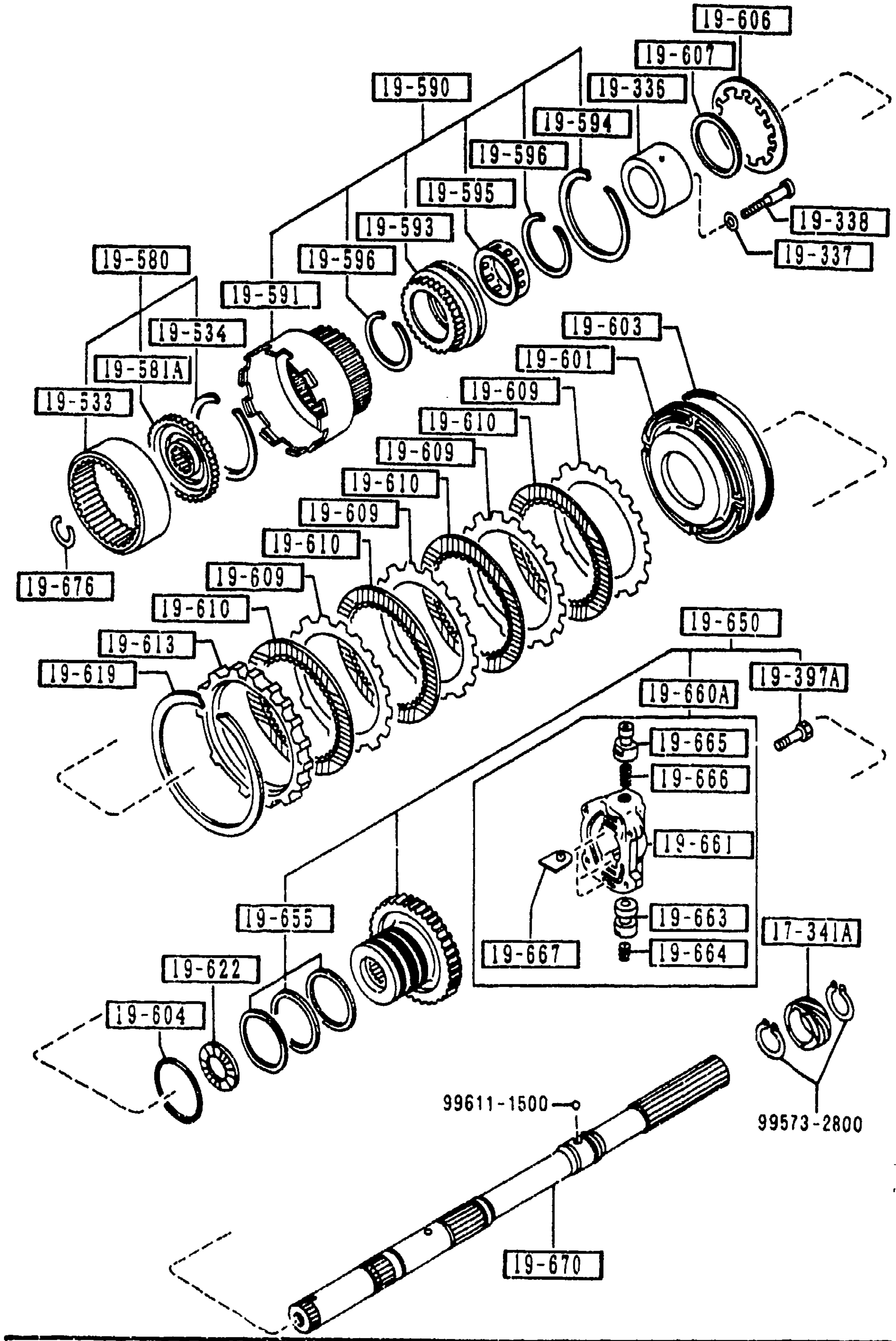
19-397A
19-660A
19-665
19-666
19-661
19-655
19-663
19-667
19-664
17-341A
19-622
19-604
99611-1500
99573-2800
19-670

1940 -1 GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-341A 1281-17-341	1	GEAR,SPEEDO.DRIVE			
19-336 0338-19-336	1	RACE,INNER			
19-337 0338-19-337	8	WASHER,PLAIN			
19-338 0338-19-338	8	BOLT			
19-397A 0338-19-397	4	BOLT			
19-533 BV04-19-533	1	GEAR,INTERNAL			
19-534 0338-19-534	1	RING,SNAP			
19-580 BV01-19-5K0	1	FLANGE			
19-581A BV04-19-581	1	HUB,DRIVE			
19-590 0338-19-590	1	DRUM,CONNECTING			
19-591 0338-19-591	1	DRUM,CONNECTING			
19-593 0338-19-593	1	RACE,OUTER			
19-594 0338-19-594	1	RING,SNAP			
19-595 0338-19-595	1	CLUTCH,ONE WAY			

1940 GOVERNOR, LOW & REVERSE PISTON(AUTOMATIC)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19-676
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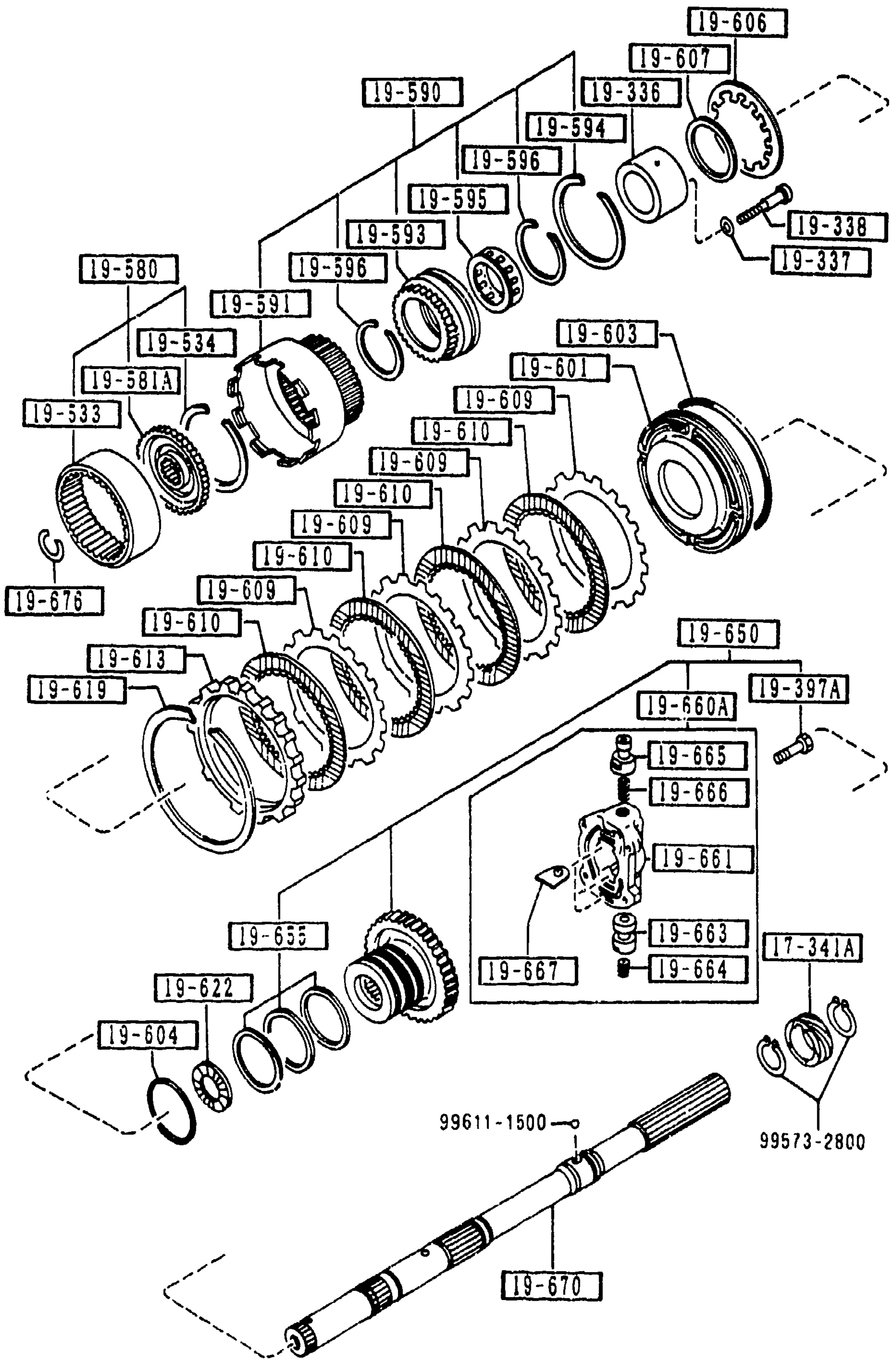
19-650
19-613
19-619
19-397A
19-660A
19-665
19-666
19-661
19-655
19-663
19-667
19-664
17-341A
19-622
19-604
99611-1500
99573-2800
19-670

1940 -2 GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-596		RING,SNAP			
0338-19-596	2				
19-601		PISTON,LOW & REVERSE			
BT08-19-600	1				
19-603		SEAL,PISTON			
0338-19-603	1				
19-604		SEAL,'O'RING			
0338-19-604	1				
19-606		SPRING,PISTON			
0338-19-606	1				
19-607		RING,SNAP			
0338-19-607	1				
19-609		PLATE,DRIVEN			
0338-19-609	4				
19-610		PLATE,DRIVEN			
BU17-19-610	4				
19-613		PLATE,RETAINING			
1758-19-613	1	T=7.8MM			
1758-19-614	1	T=8MM			
1758-19-615	1	T=8.2MM			
1758-19-616	1	T=8.4MM			
1758-19-617	1	T=8.6MM			
1758-19-618	1	T=8.8MM			
19-619		RING,SNAP			
0338-19-619	1				
19-622		BEARING,NEEDLE			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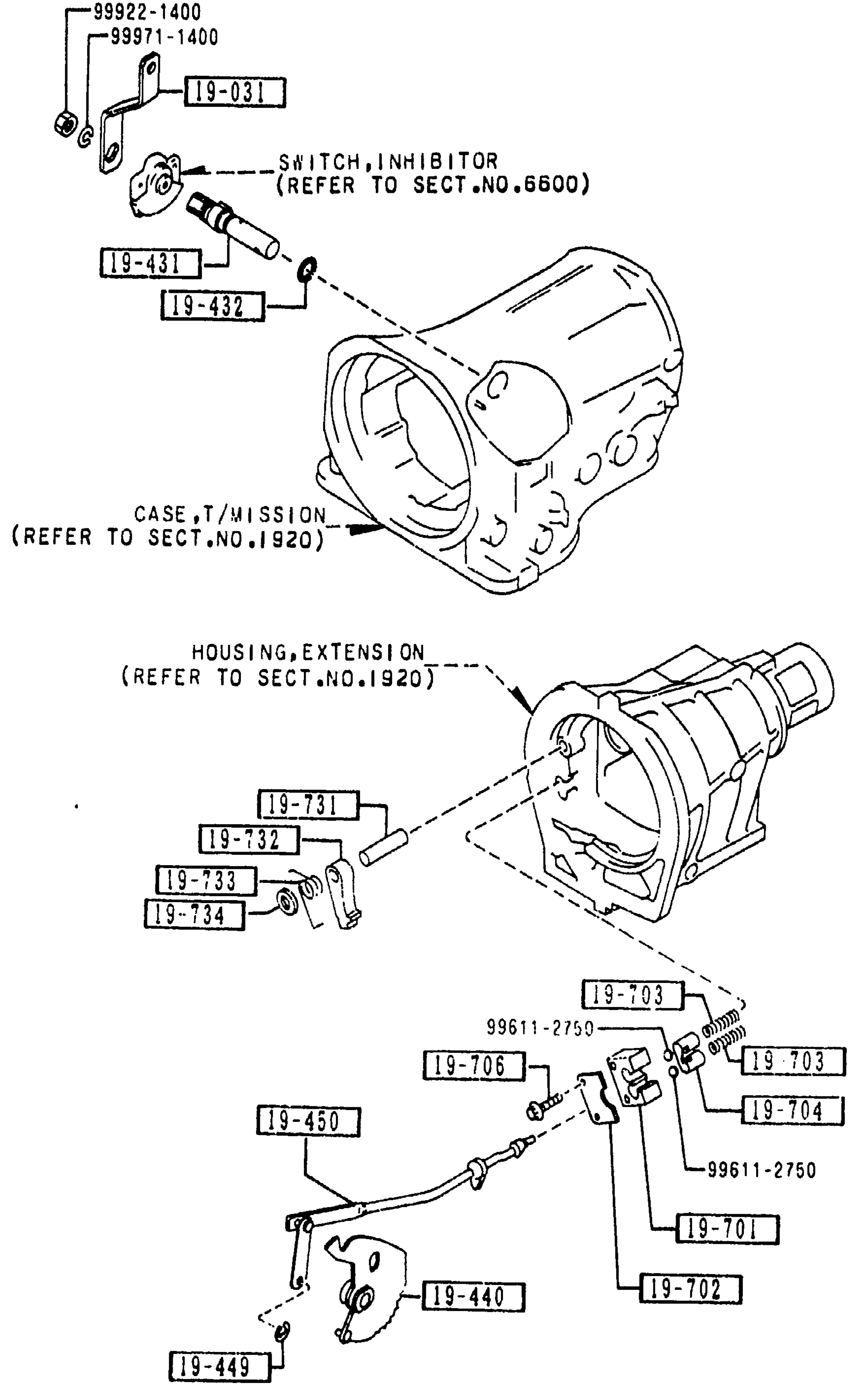
19-676
19-613
19-619
19-650
19-397A
19-660A
19-665
19-666
19-661
19-655
19-663
19-667
19-664
17-341A
19-622
19-604
99611-1500
99573-2800
19-670

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D FT01-19-622	1				
19-650		DISTRIBUTOR,OIL			
BU55-19-650	1				
19-655		RING,SEAL			
0338-19-655	3				
19-660A		VALVE,GOVERNOR			
BU55-19-660	1				
19-661		BODY			
BU55-19-661	1				
19-663		VALVE			
0338-19-663	1				
19-664		SPRING			
0338-19-664	1				
19-665		VALVE			
BU55-19-665	1				
19-666		SPRING,GOVERNOR			
BU55-19-666	1				
19-667		PLATE,RETAINER			
0338-19-667	3				
19-670		SHAFT			
BU55-19-670	1				
19-676		RING			
0338-19-676	1				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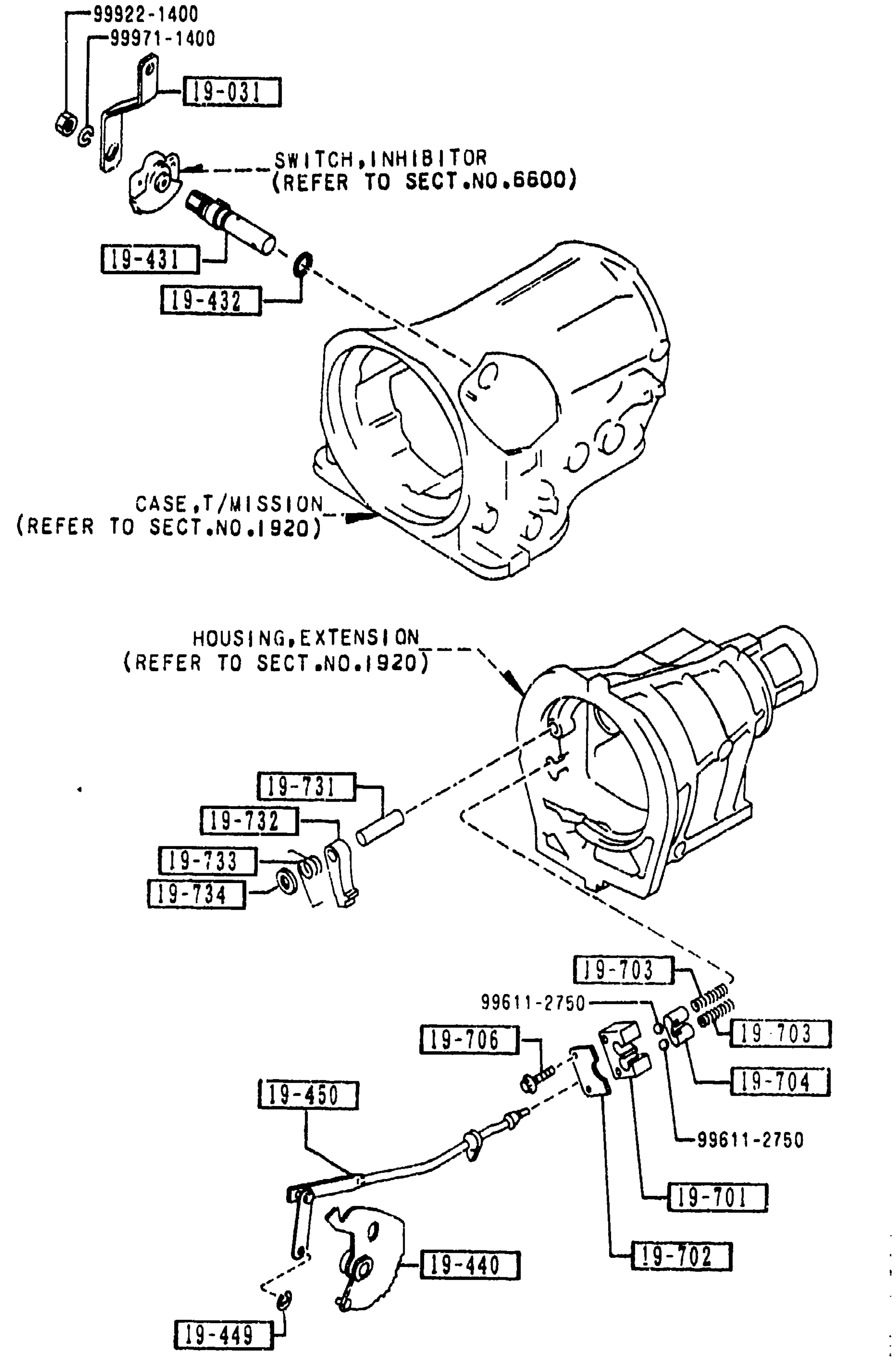
99971-1400
19-031
SWITCH,INHIBITOR
(REFER TO SECT.NO.6600)
19-431
19-432
CASE,T/MISSION
(REFER TO SECT.NO.1920)
HOUSING,EXTENSION
(REFER TO SECT.NO.1920)
19-731
19-732
19-733
19-734
19-703
99611-2750
19-706
19-703
19-704
19-450
99611-2750
19-701
19-440
19-702
19-449

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-031 BU55-19-031	1	LEVER,SELECT			
19-431 BU67-19-431	1	SHAFT,MANUAL			
19-432 0338-19-432	1	RING,'O'			
19-440 BU55-19-440	1	PLATE,MANUAL			
19-449 0338-19-449	1	RING,SNAP			
19-450 BU17-19-450	1	ROD,PARKING			
19-701 0338-19-701A	1	SUPPORTER,ACTUATOR			
19-702 0338-19-702A	1	PLATE,RETAINING			
19-703 0338-19-703	2	SPRING,BALL PARK			
19-704 0338-19-704	1	RETAINER			
19-706 0338-19-706	1	BOLT			
19-731 0338-19-731	1	SHAFT,PARKING PAWL			
19-732 BU17-19-732	1	PAWL,PARKING			
19-733 0338-19-733C	1	SPRING,PAWL RETURN			

1950 MANUAL LINKAGE SYSTEM (AUTOMATIC)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19-031
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(REFER TO SECT.NO.6600)
19-431
19-432
CASE,T/MISSION
(REFER TO SECT.NO.1920)
HOUSING,EXTENSION
(REFER TO SECT.NO.1920)
19-731
19-732
19-733
19-734
19-703
99611-2750
19-706
19-703
19-704
19-450
99611-2750
19-701
19-440
19-702
19-449

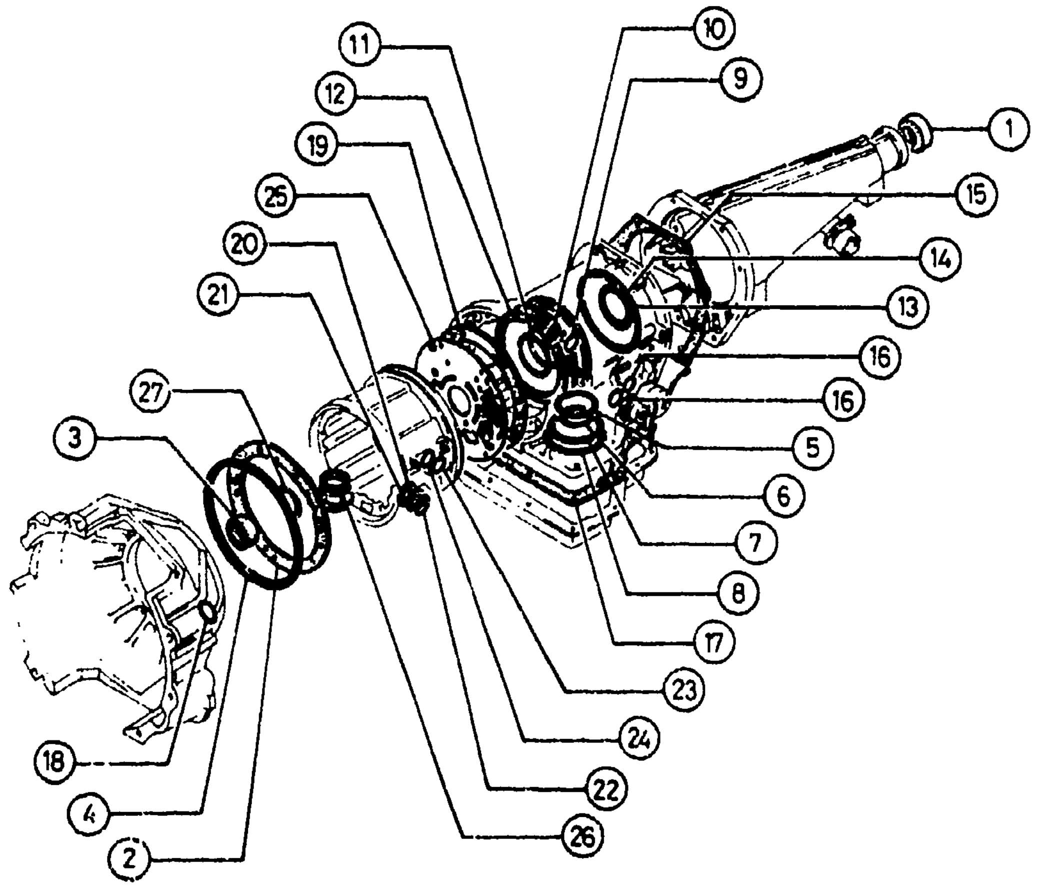
1950 -2 * MANUAL LINKAGE SYSTEM (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-734		SPACER,DOWEL			
0338-19-734A	1				

1960 GASKET & SEAL KIT (AUTOMATIC)

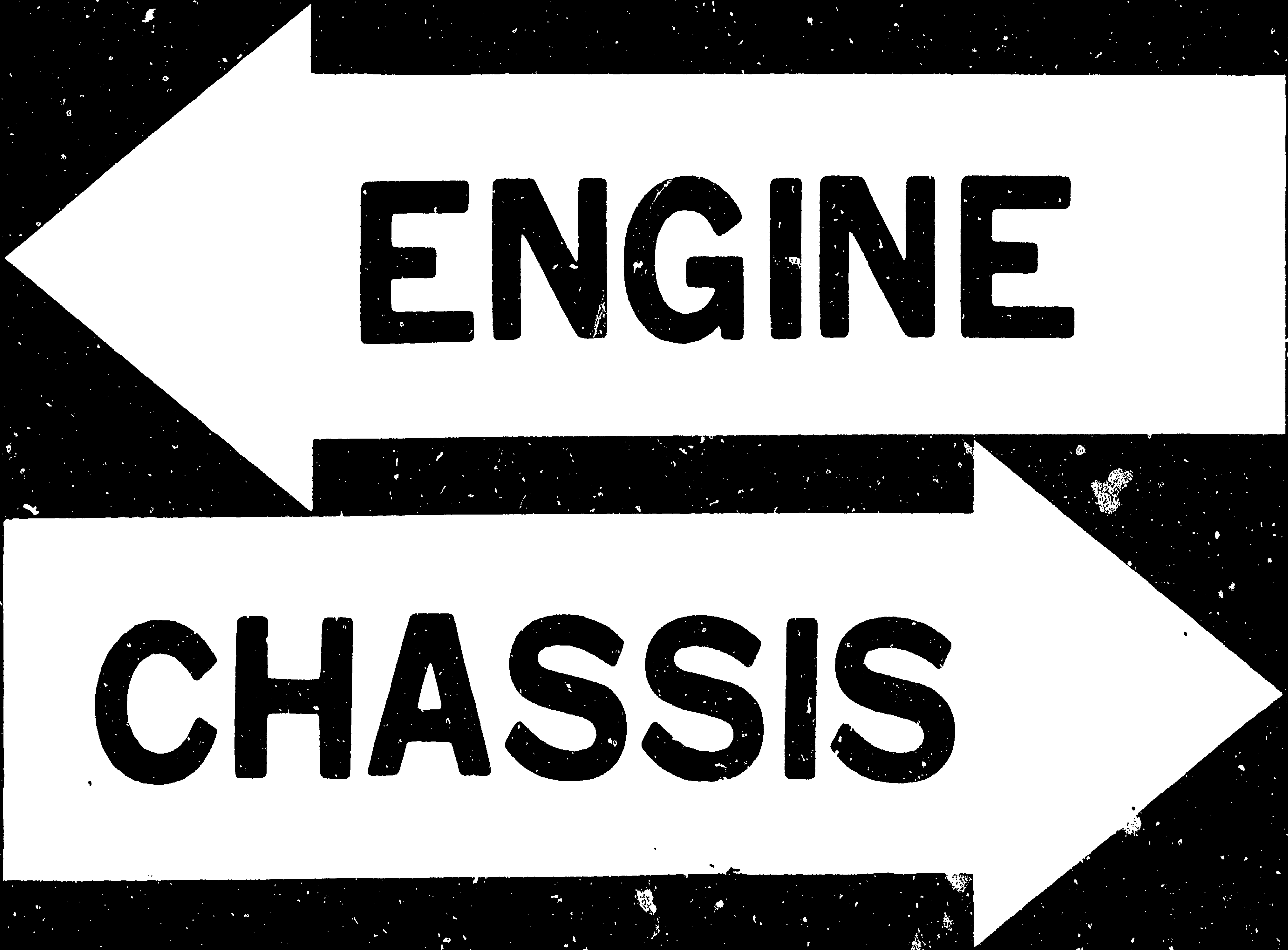
22-900

1	SEAL,OIL	(1)
2	GASKET,OIL PUMP	(1)
3	SEAL,OIL	(1)
4	SEAL,CUT RING	(2)
5	SEAL,PISTON	(1)
6	SEAL,PISTON	(1)
7	SEAL,LATHE CUT	(1)
8	RING,"O"	(1)
9	RING,"O"	(1)
10	RING,"O"	(1)
11	SEAL,"O"RING	(3)
12	SEAL,LAHTE CUT	(3)
13	SEAL,PISTON	(1)
14	SEAL,"O"RING	(1)
15	GASKET,EXTENSION	(1)
16	SEAL,"O"RING	(2)
17	GASKET,OIL PAN	(1)
18	RING,"O"	(1)
19	GASKET,DRUM SUPPORT	(1)
20	SEAL,"O"RING	(1)
21	SEAL,"O"RING	(1)
22	RING,"O"	(1)
23	RING,"O"	(1)
24	RING,"O"	(1)
25	GASKET,O/DRIVE CASE	(1)
26	RING,"O"	(1)
27	RING,"O"	(1)



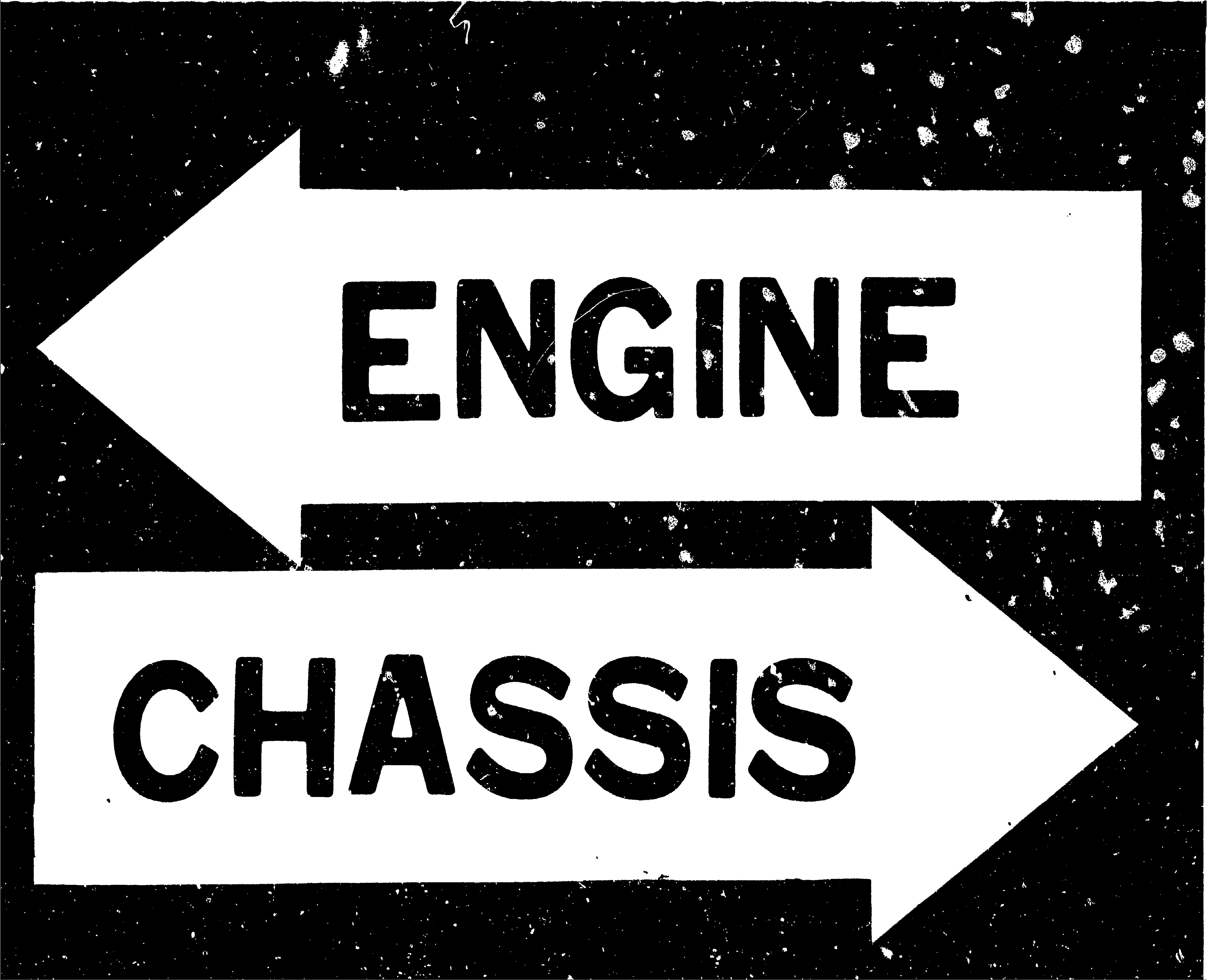
1960 -1 * GASKET & SEAL KIT (AUTOMATIC)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
22-900		GASKET & SEAL KIT			
BU01-99-190A	1	ASBESTOS			



ENGINE

CHASSIS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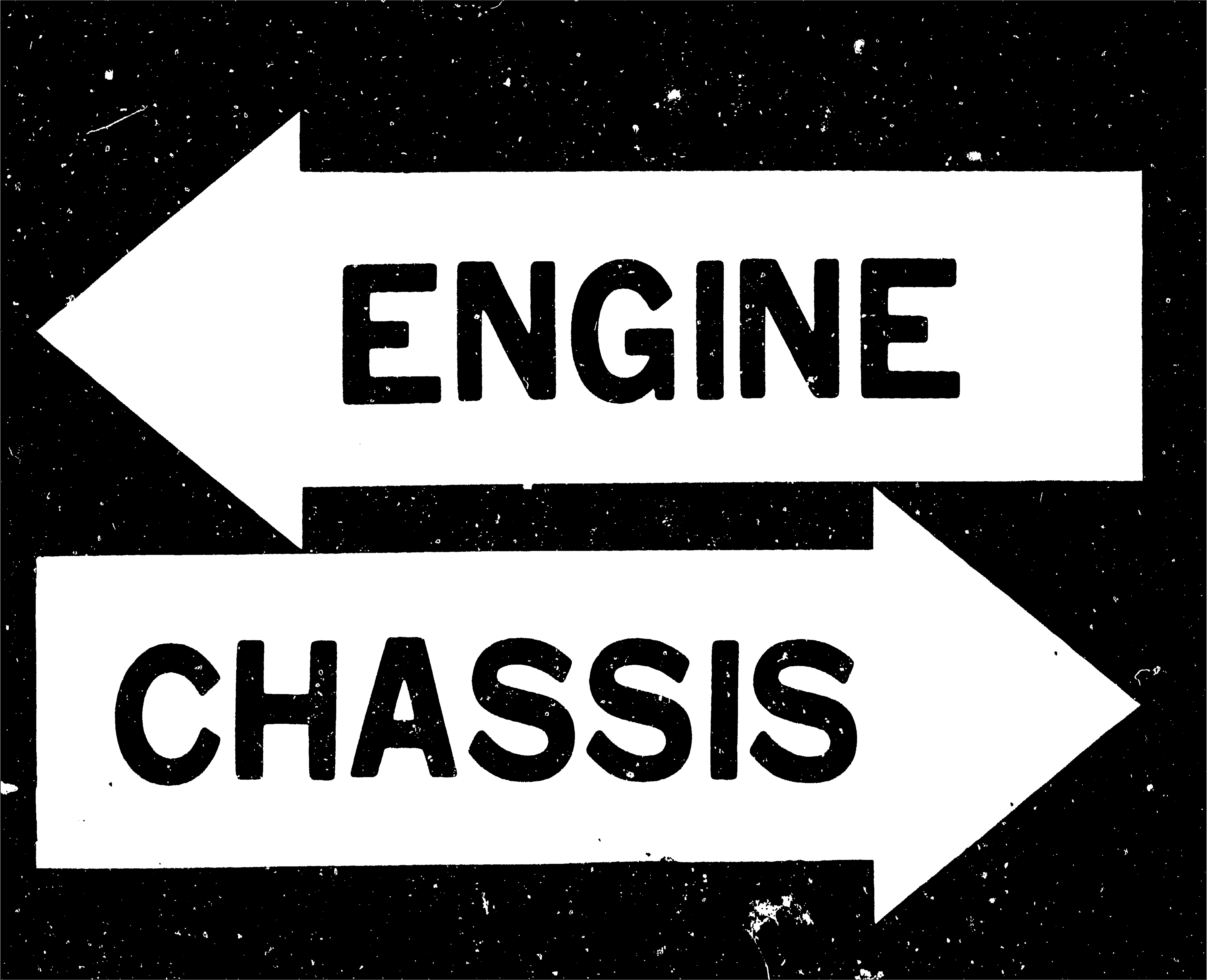
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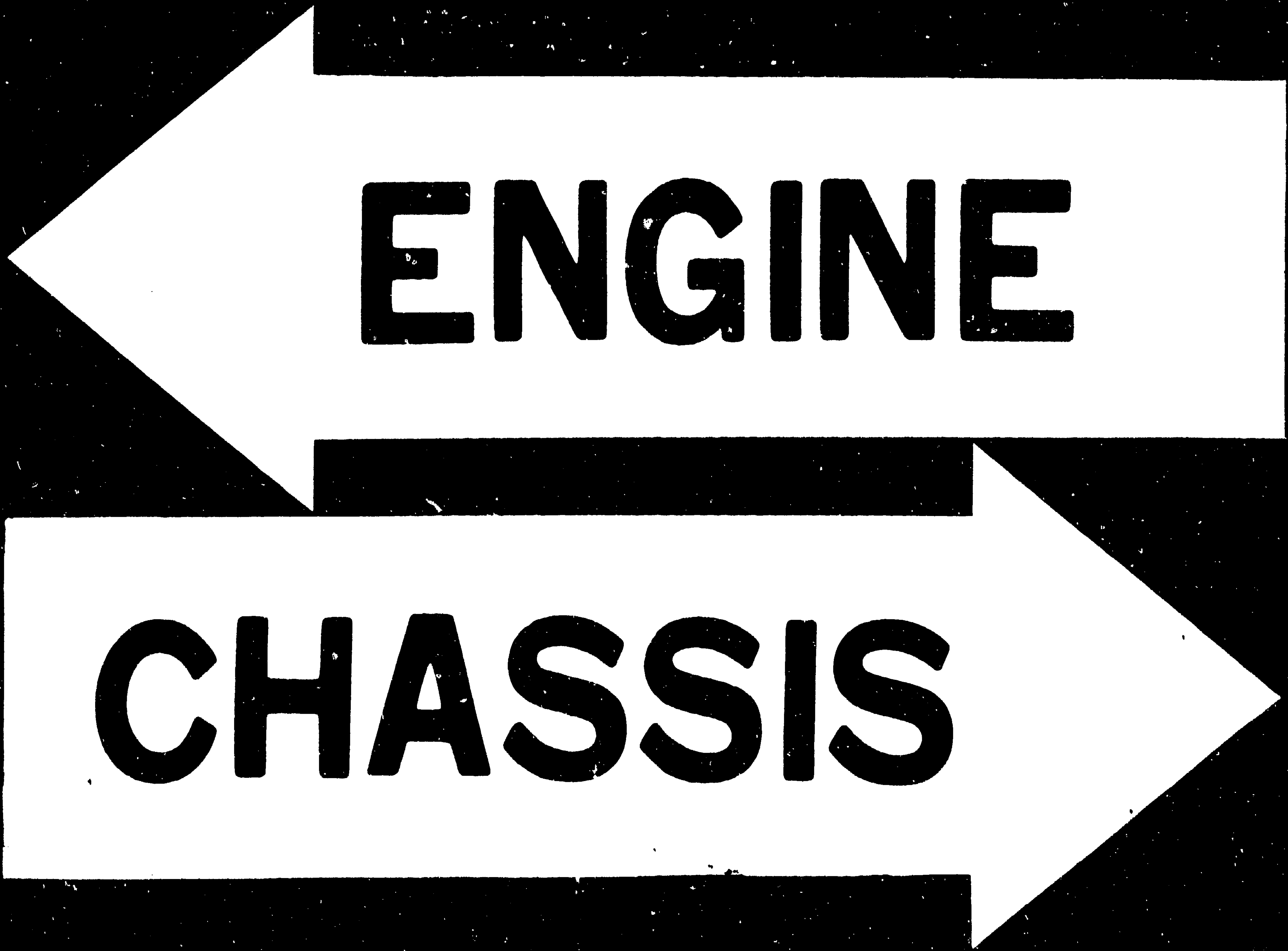
CHASSIS

ENGINE

CHASSIS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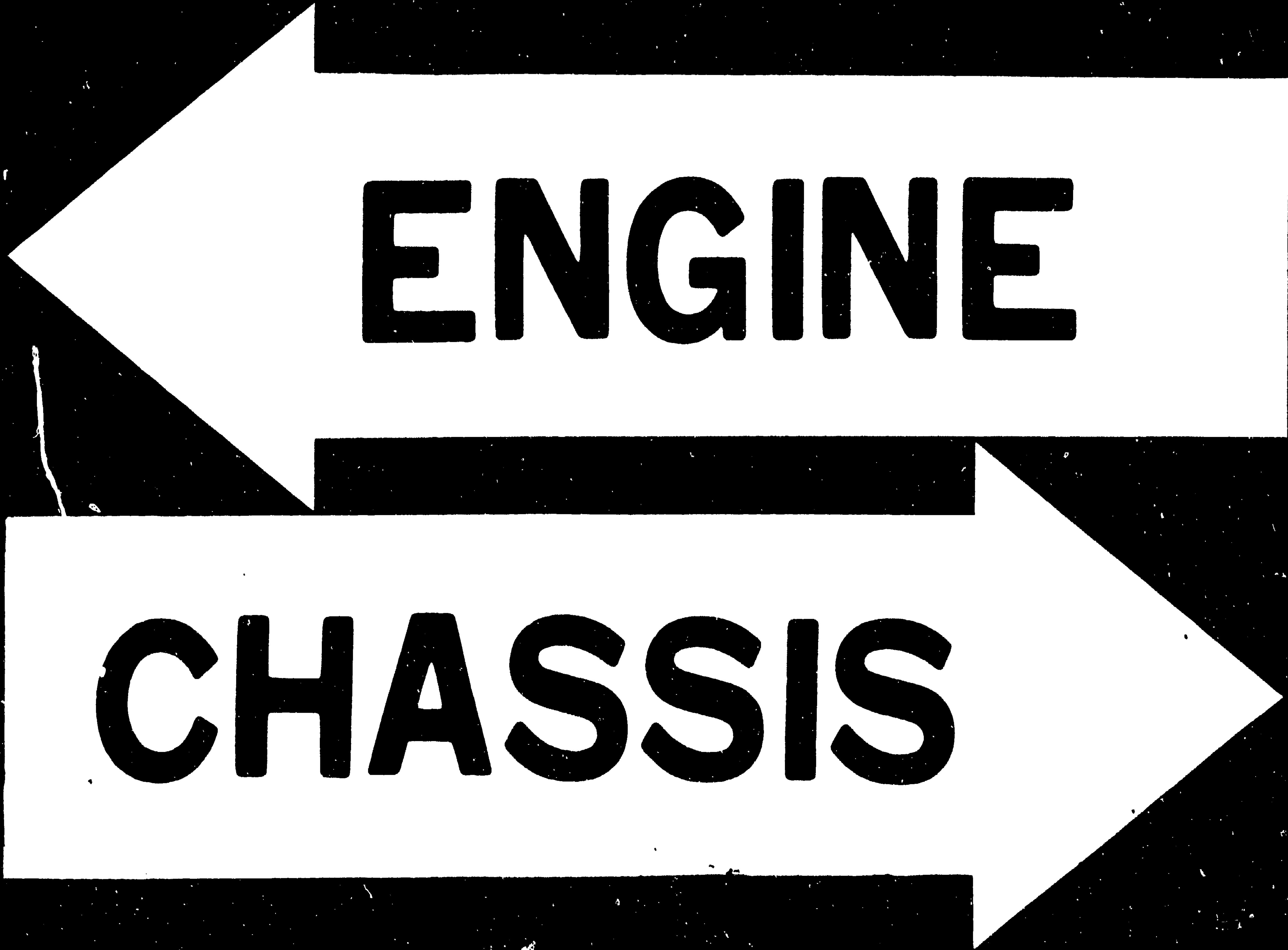
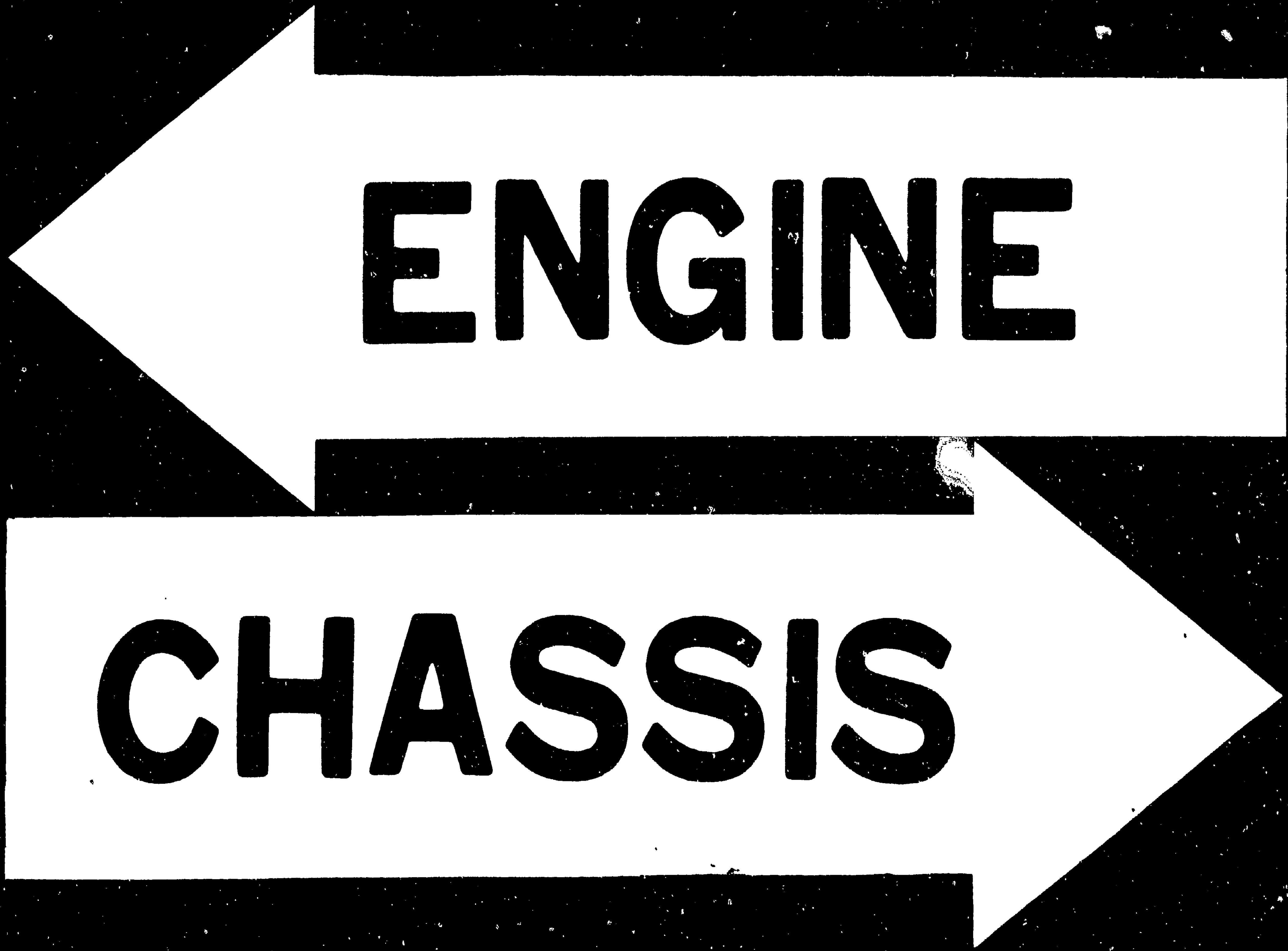


ENGINE

CHASSIS

ENGINE

CHASSIS



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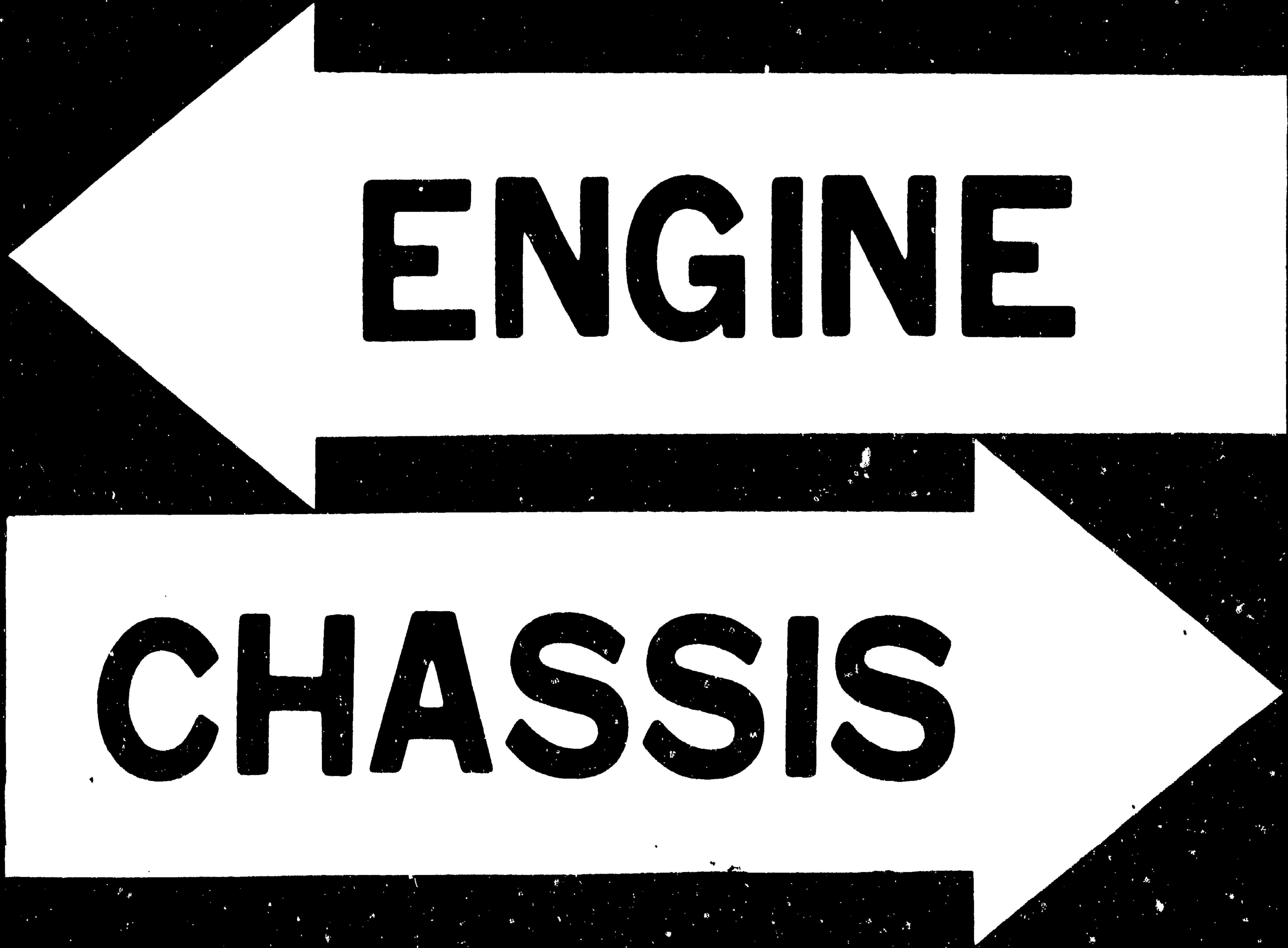
CHASSIS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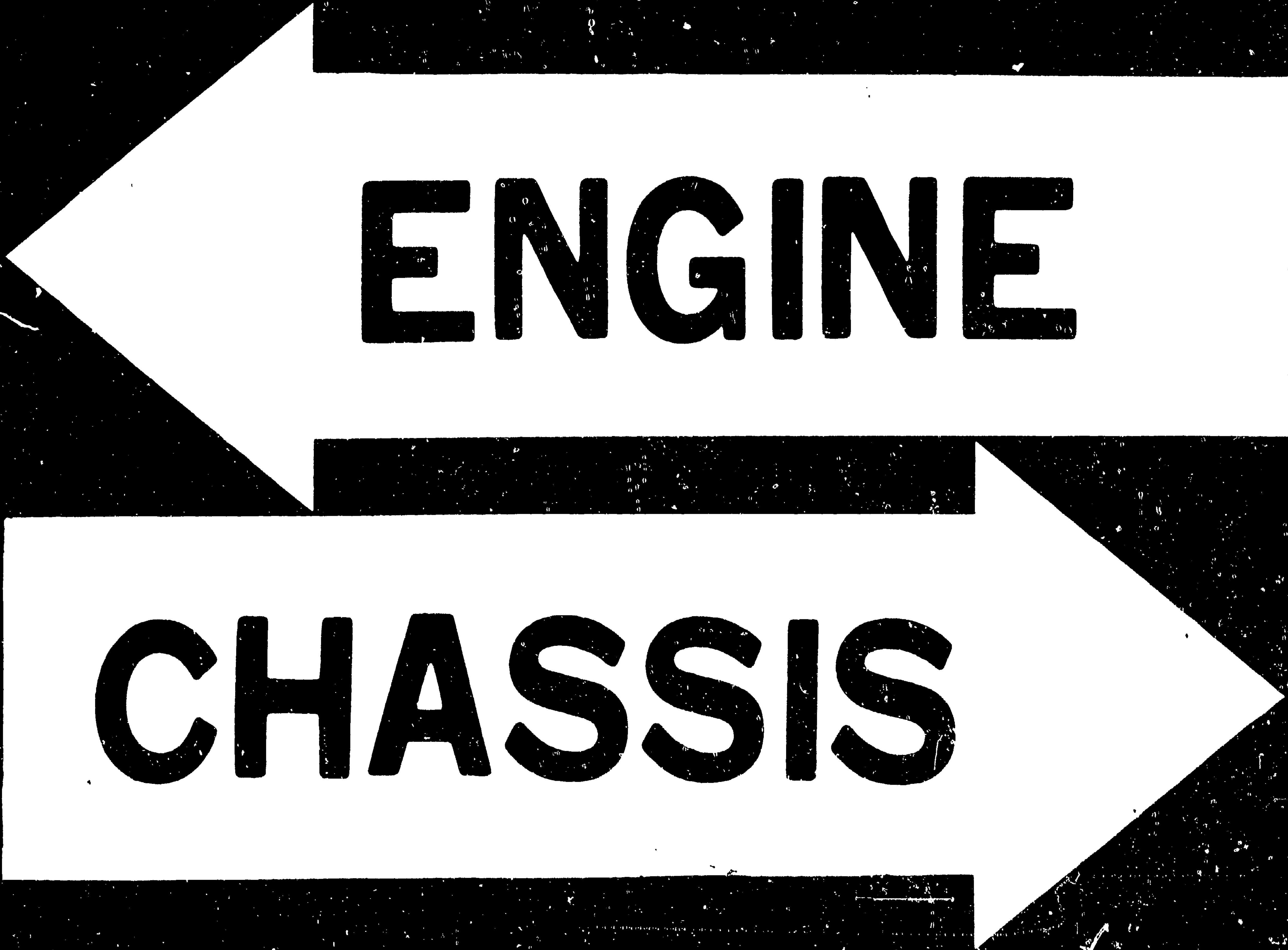
CHASSIS

ENGINE

CHASSIS

ENGINE

CHASSIS



ENGINE

CHASSIS

ENGINE

CHASSIS

SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
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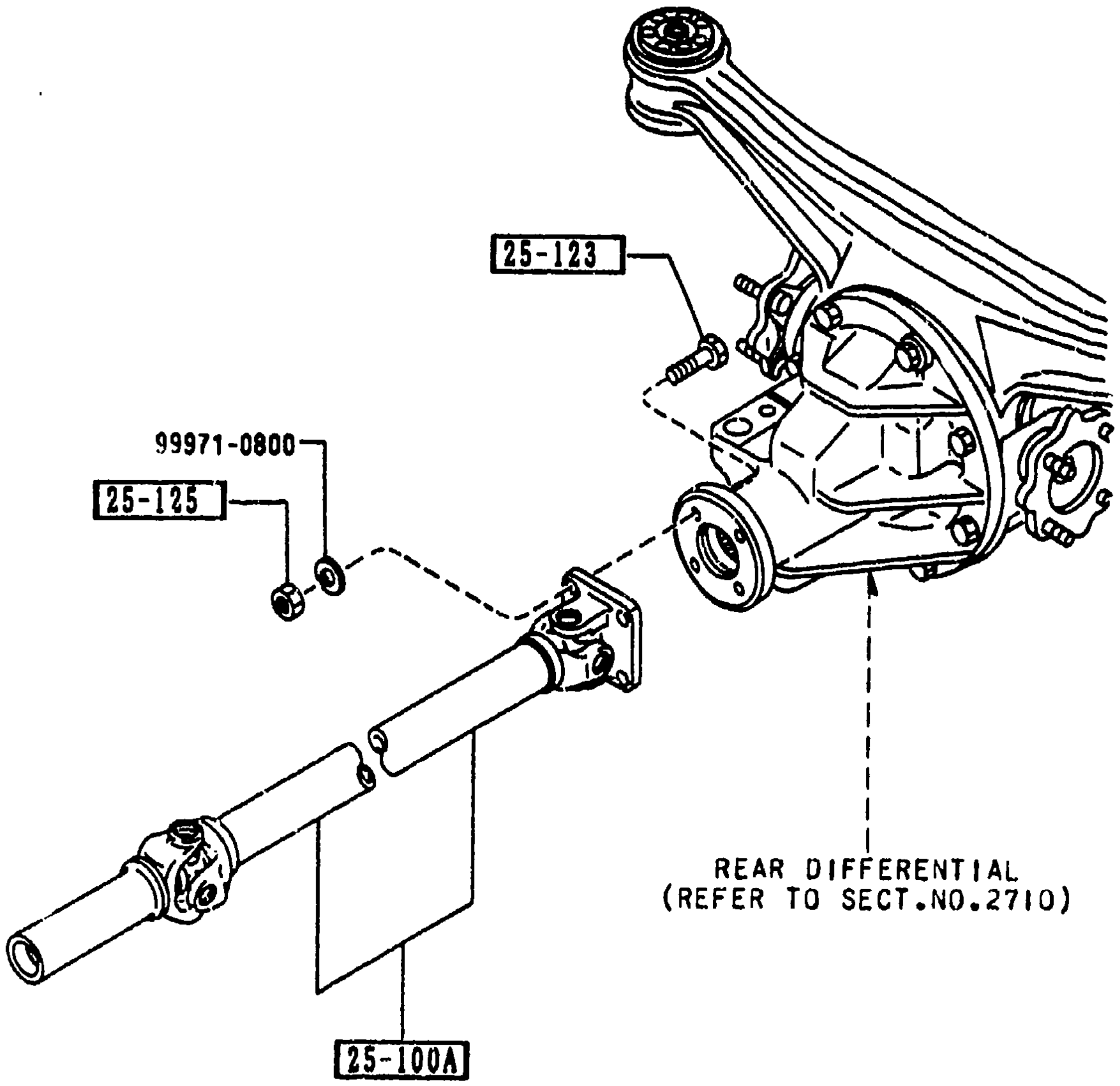
1-D11	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM (AT)			
1-F11	2610	REAR BRAKE MECHANISMS						
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-D12	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-I12	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-I13	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-C14	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-D15	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMISSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-I15	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						

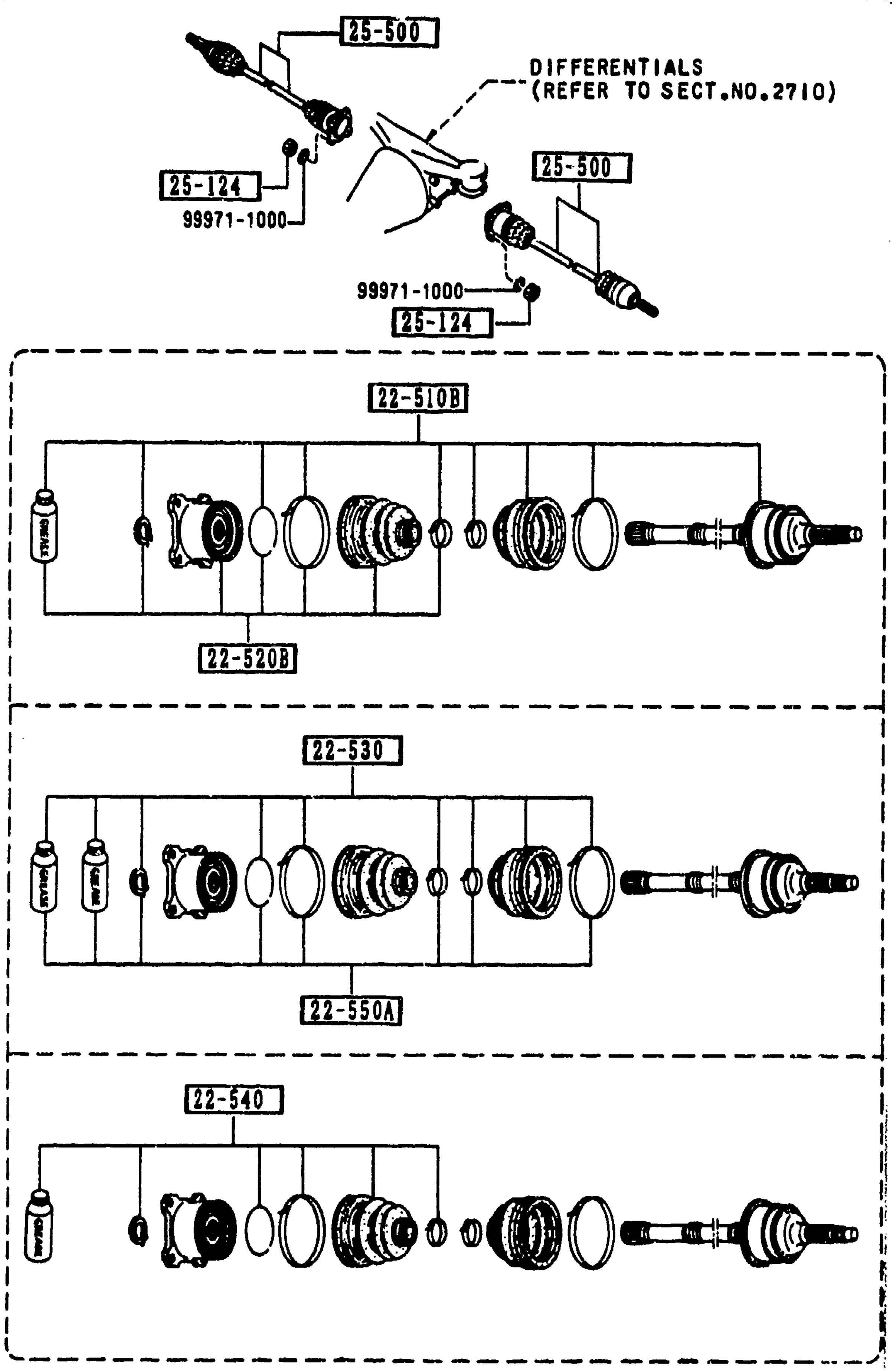
2505 REAR PROPELLER SHAFT


25-123
99971-0800
25-125
REAR DIFFERENTIAL
(REFER TO SECT.NO.2710)
25-100A

2505 -1 * REAR PROPELLER SHAFT

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
25-100A		SHAFT,PROPELLER			
M091-25-100	1				
25-123		BOLT			
N010-25-123	4				
25-125		NUT			
1456-25-125	4				

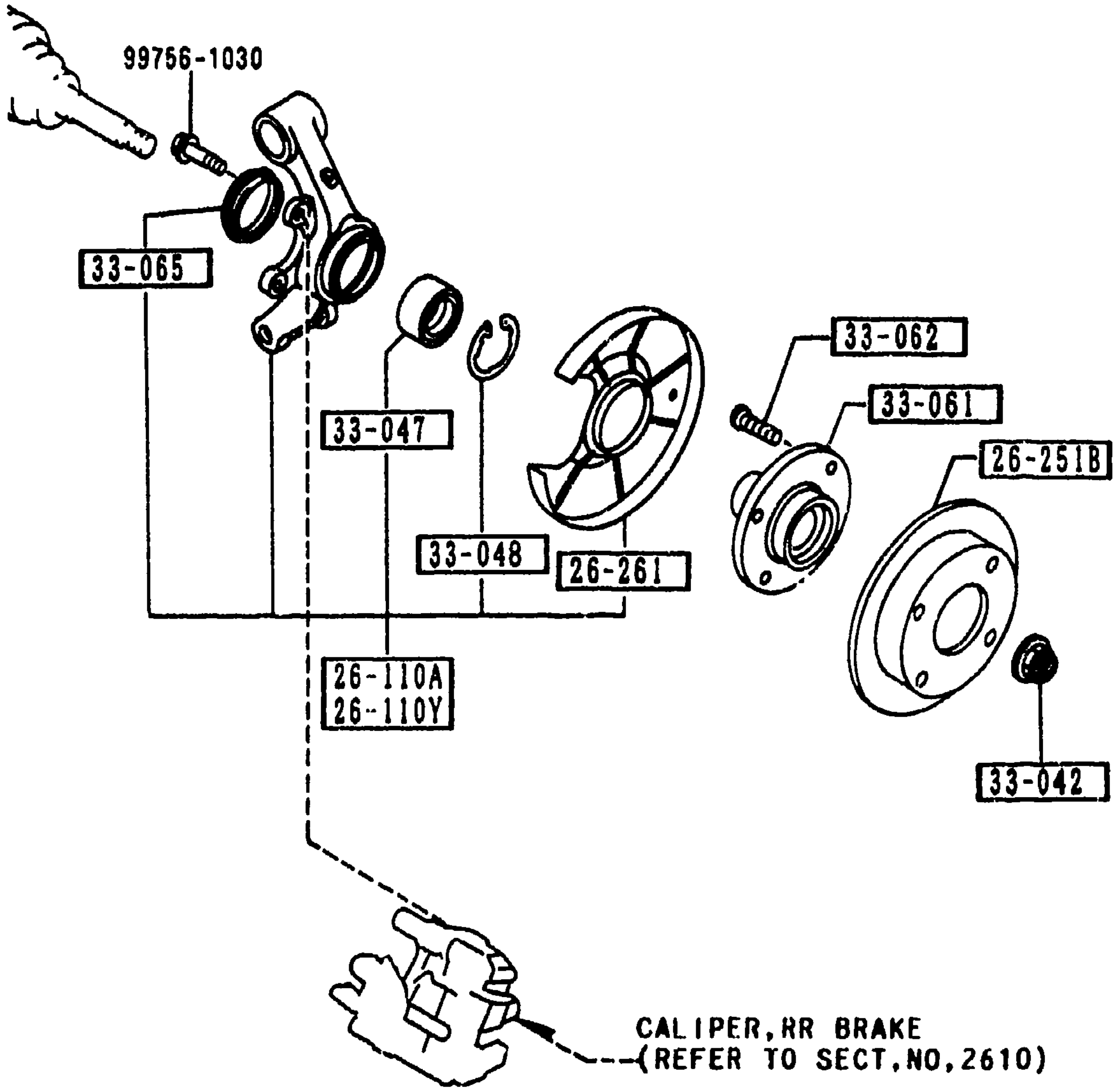
2550 REAR DRIVE SHAFT


25-500
DIFFERENTIALS
(REFER TO SECT.NO.2710)
25-124
99971-1000
25-500
99971-1000
25-124
22-510B
GREASE
22-520B
22-530
GREASE
GREASE
22-550A
22-540
GREASE

2550 -1 * REAR DRIVE SHAFT

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
22-510B M090-22-510	2	JOINT SET,OUTER			
22-520B M090-22-520	2	JOINT SET(R),INNER			
22-530 M090-22-530	2	BOOT SET,OUTER JOINT			
22-540 M090-22-540	2	BOOT SET,INNER JOINT			
22-550A M090-22-550	2	CLIP SET,DRIVE SHAFT			
25-124 1368-25-124	8	NUT			
25-500 M090-25-500	2	SHAFT,DRIVE			

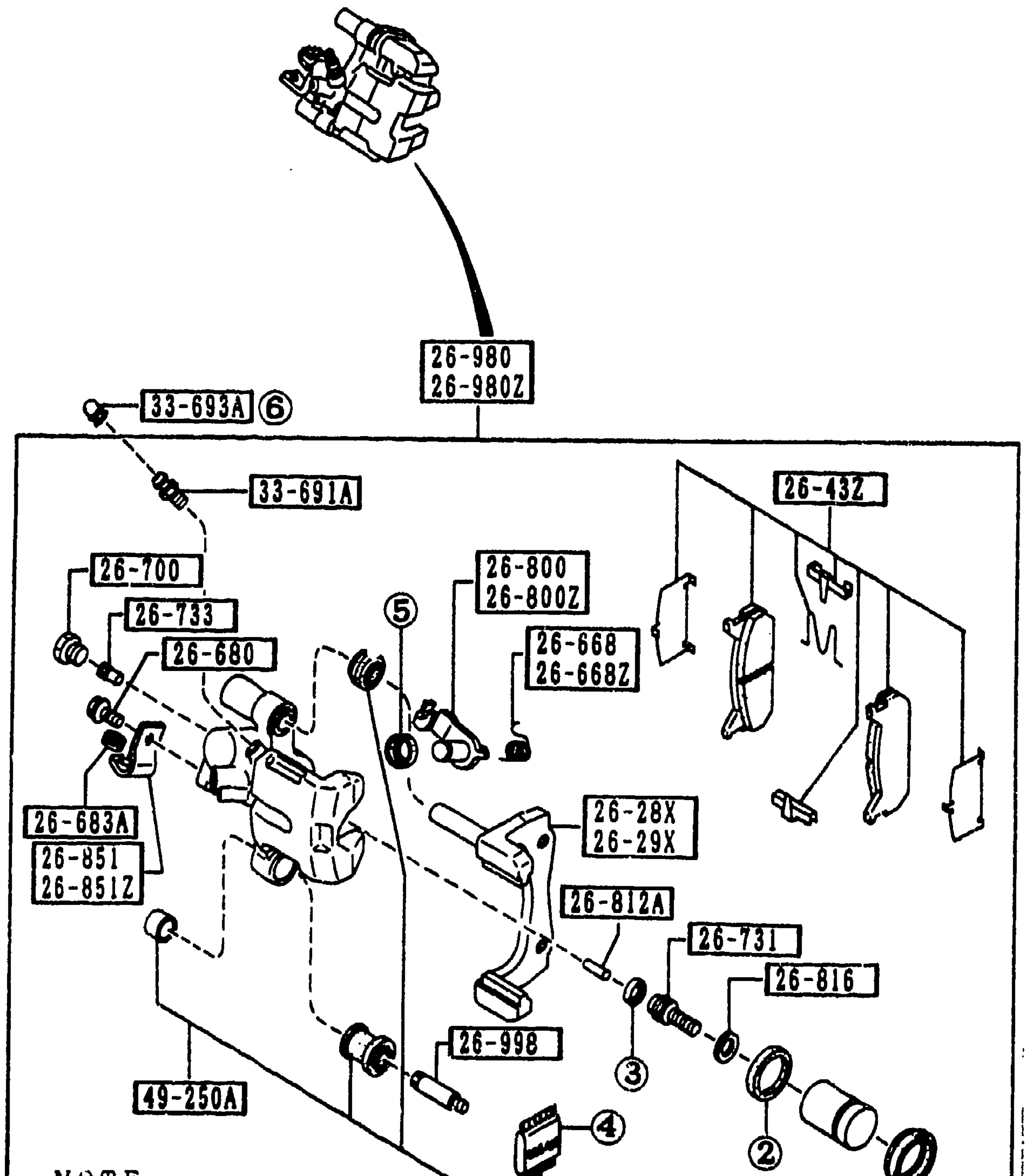
2600 REAR AXLE


99756-1030
33-065
33-047
33-048
26-261
33-062
33-061
26-251B
33-042
26-110A
26-110Y
CALIPER,RR BRAKE
(REFER TO SECT,NO,2610)

2600 -1 * REAR AXLE

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
26-110A		KNUCKLE(R),REAR			
NA01-26-130 A (NA01-26-130A)	1				-9901
NA01-26-130A	1				9901-
26-110Y		KNUCKLE(L),REAR			
NA01-26-140 A (NA01-26-140A)	1				-9901
NA01-26-140A	1				9901-
26-251B		PLATE,DISC			
*NA01-26-251A	2				
26-261		COVER,DUST			
NA01-26-261 A (NA01-26-261A)	2				-9901
NA01-26-261A	2				9901-
33-042		NUT			
NA01-33-042A	2	W/WASHER			
33-047		BEARING,WHEEL			
B455-33-047A	2				
33-048		RING,RETAINING-DISC PLATE			
H260-33-048	2				
33-061		HUB,WHEEL			
B455-33-061	2				
33-062		BOLT,HUB			
B455-33-062	8				
33-065		SEAL,OIL-AXLE			
G304-33-065	2				

9901 NA35**-119257

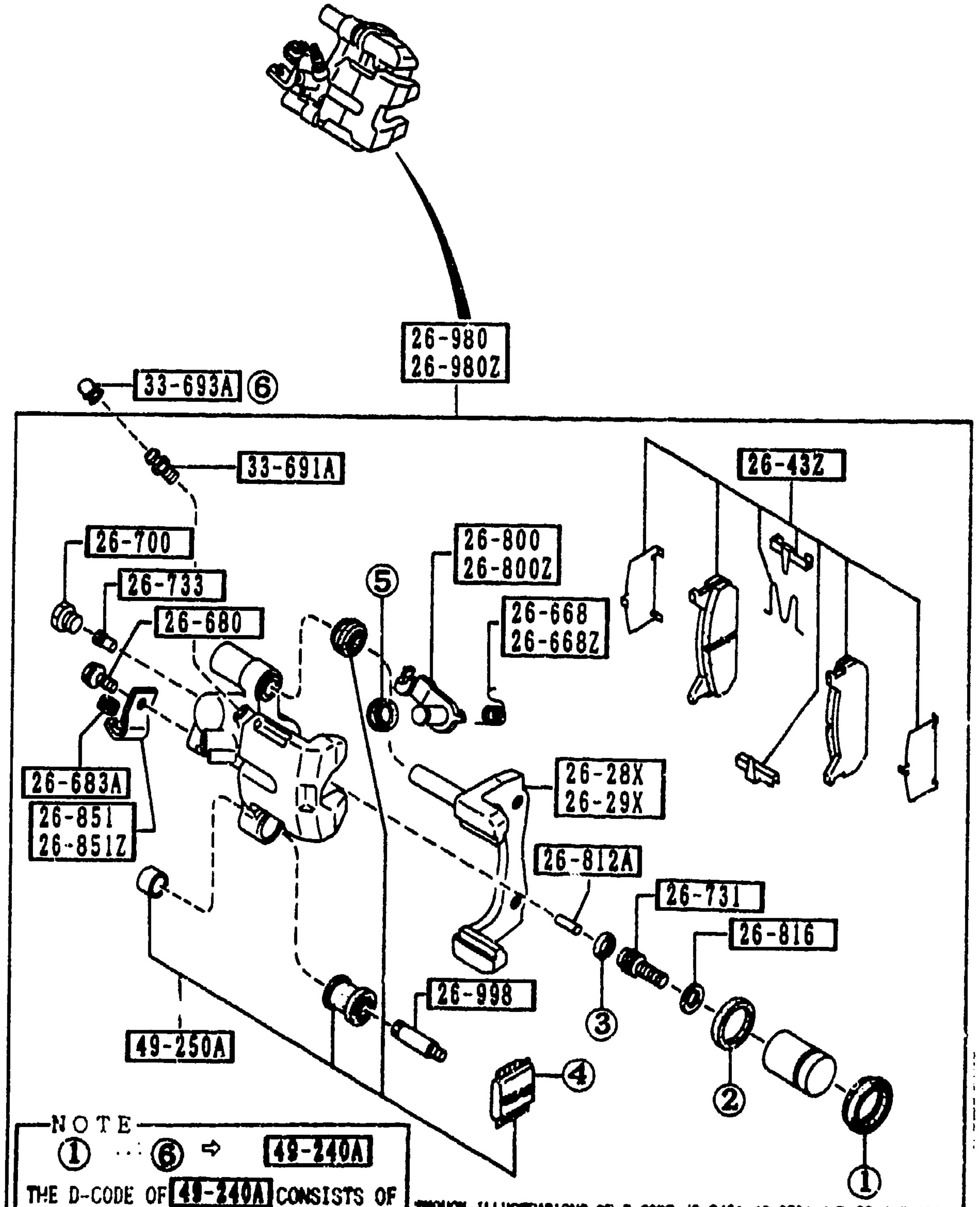

26-980
26-980Z
33-693A ⑥
33-691A
26-432
26-700
26-733
26-680
26-800
26-800Z
⑤
26-668
26-668Z
26-683A
26-851
26-851Z
26-28X
26-29X
26-812A
26-731
26-816
26-998
③
49-250A
④
②
①

NOTE
① ···⑥ ⇨ 49-240A

THE D-CODE OF 49-240A CONSISTS OF FIGURE NUMBERS ① THROUGH ⑥.

THOUGH ILLUSTRATIONS OF D-CODE 49-240A, 49-250A, AND 26-432 ARE FOR LEFT SIDE ONLY, QUANTITIES OF THESE D-CODES IN THE TEXT ARE FOR ONE VEHICLE.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
26-28X NA10-26-28X	1	SUPPORT(R),MOUNTING			
26-29X NA10-26-29X	1	SUPPORT(L),MOUNTING			
26-43Z NAY1-26-43Z	1	PAD SET,RR CALIPER ASBESTOS			
26-668 BW0H-26-668	1	SPRING(R),LEVER			
26-668Z BW0H-26-669	1	SPRING(L),LEVER			
26-680 BW0H-26-680	2	BOLT			
26-683A BW0H-26-683	2	PROTECTOR			
26-700 BW0H-26-700	2	PLUG,SCREW			
26-731 BW0H-26-731	2	SPINDLE,ADJUSTER			
26-733 BW0H-26-733	2	GEAR,ADJUST			
26-800 BW0H-26-800	1	LEVER(R),OPERATING			
26-800Z BW0H-26-810	1	LEVER(L),OPERATING			
26-812A BW0H-26-812	2	ROD,PUSH-FRT CALIPER			
26-816		RING,SNAP-RR CALIPER			


26-980
26-980Z
33-693A ⑥
33-691A
26-43Z
26-700
26-733
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26-800
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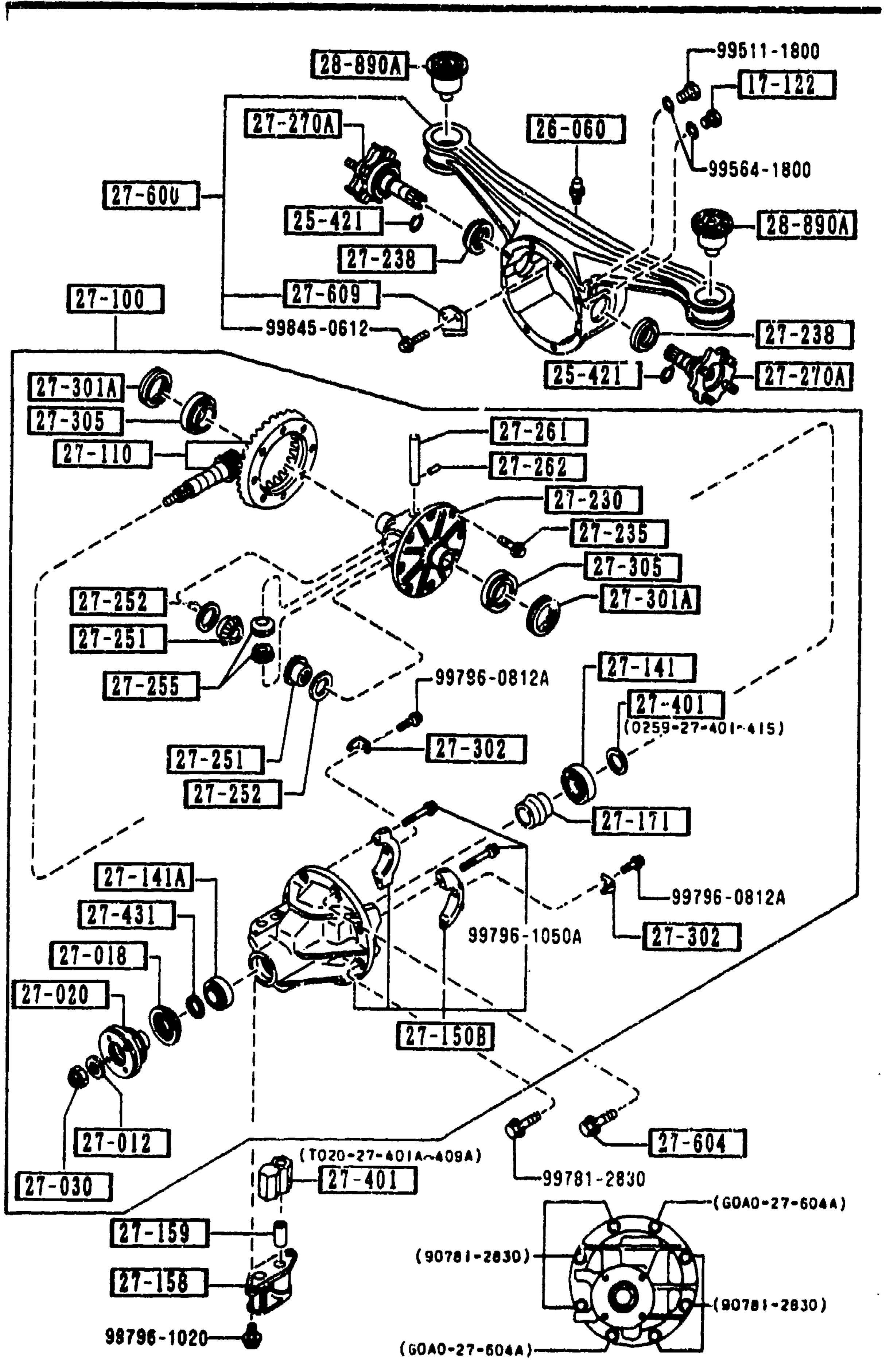
⑤
26-668
26-668Z
26-683A
26-851
26-851Z
26-28X
26-29X
26-812A
26-731
26-816
26-998
③
④
②
①
49-250A

NOTE
① ··· ⑥ ⇨ 49-240A
THE D-CODE OF 49-240A CONSISTS OF FIGURE NUMBERS ① THROUGH ⑥.

THOUGH ILLUSTRATIONS OF D-CODE 49-240A, 49-250A, AND 26-43Z ARE FOR LEFT SIDE ONLY, QUANTITIES OF THESE D-CODES IN THE TEXT ARE FOR ONE VEHICLE.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D BW0H-26-816	2				
26-851		BRACKET(R),CABLE			
BW0H-26-851	1				
26-851Z		BRACKET(L),CABLE			
BW0H-26-861	1				
26-980		CALIPER(R),RR BRAKE			
NA01-26-980A	1				
26-980Z		CALIPER(L),RR BRAKE			
NA01-26-990A	1				
26-998		PIN,GUIDE			
BW0H-26-998A	2				
33-691A		SCREW,BLEEDER			
BW0H-26-691	2				
33-693A		CAP,BLEEDER SCREW			
0259-33-693	2				
49-240A		SEAL KIT,CALIPER-RR			
NAY1-26-44Z	1				
49-250A		BOOT KIT,RR CALIPER			
BWYH-26-45Z	1				

2710 REAR DIFFERENTIALS (NORMAL DIFF.)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99511-1800
17-122
27-270A
26-060
99564-1800
27-600
25-421
28-890A
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99845-0612
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27-255
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27-401
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99796-1050A
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27-150B
27-012
27-030
27-604
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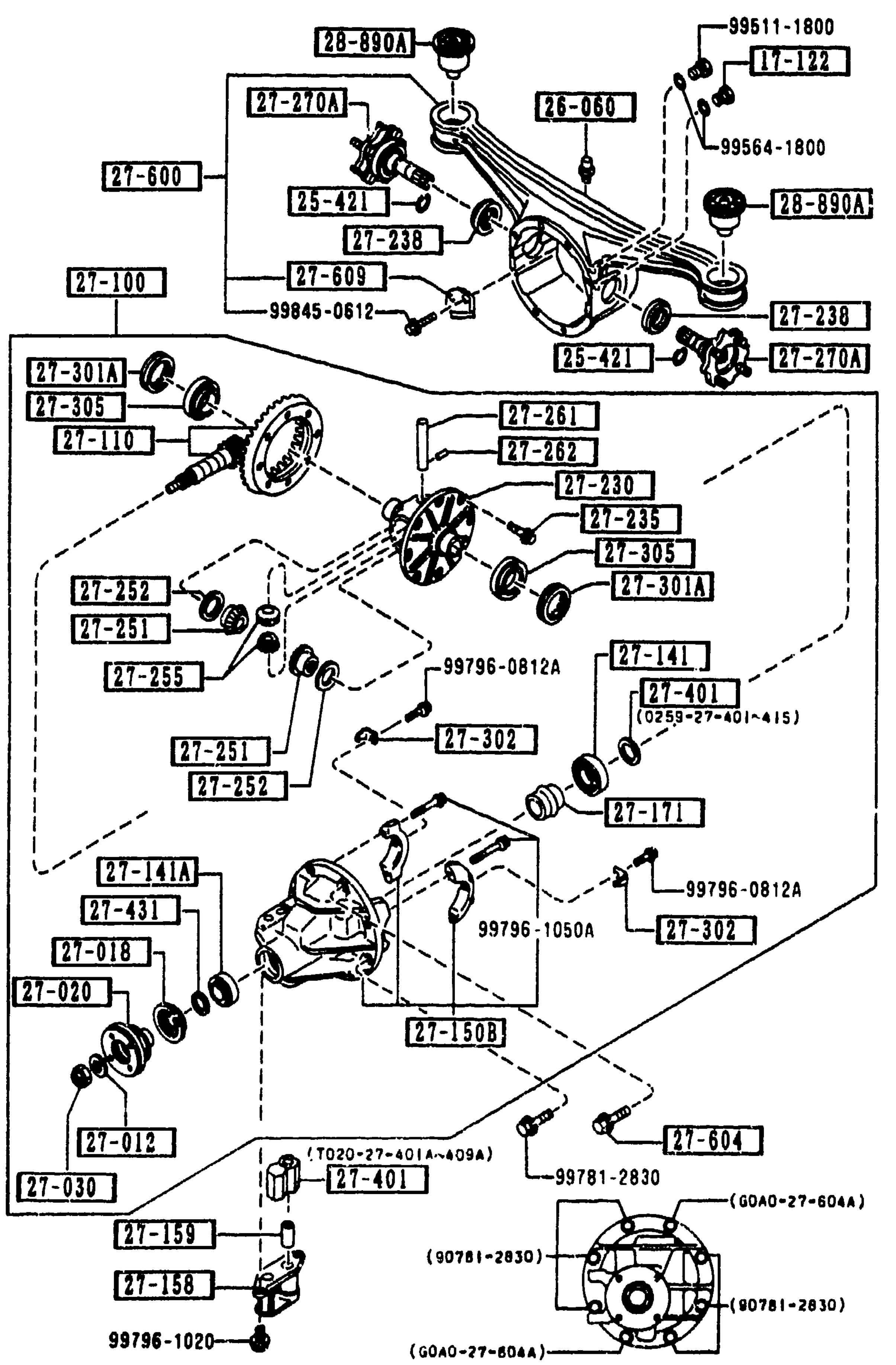
(90781-2830)
99796-1020
(GOA0-27-604A)

2710 -1 REAR DIFFERENTIALS (NORMAL DIFF.)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-122		PLUG,MAGNET			
0810-17-121	1				
25-421		CLIP			
F001-25-421A	2				
26-060		BREATHER			
0730-26-060	1				
27-012		WASHER			
3919-27-012	1				
27-018		SEAL,OIL			
T020-27-165	1				
27-020		FLANGE,COMPANION			
T002-27-120A AN(T002-27-120B)	1				-9721
T002-27-120B	1				9721-
27-030		NUT,LOCK			
3919-27-130	1				
27-100		DRIVING & DIFF.			
T020-27-100H AN(T020-27-100J)	1				-9721
T020-27-100J A (T020-27-100K)	1				9721-9801
T020-27-100K	1				9801-
27-110		GEAR SET,FINAL			
T020-27-110B	1	R=4.300			
27-141		BEARING,PINION			
0755-27-210	1				
27-141A		BEARING,PINION			
3919-27-220	1				
27-150B		CARRIER,DIFFERTIAL-FRT			
T020-27-150C	1				-9801

9721 NA35**-114922
9801 NA35**-116316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25-421
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99845-0612
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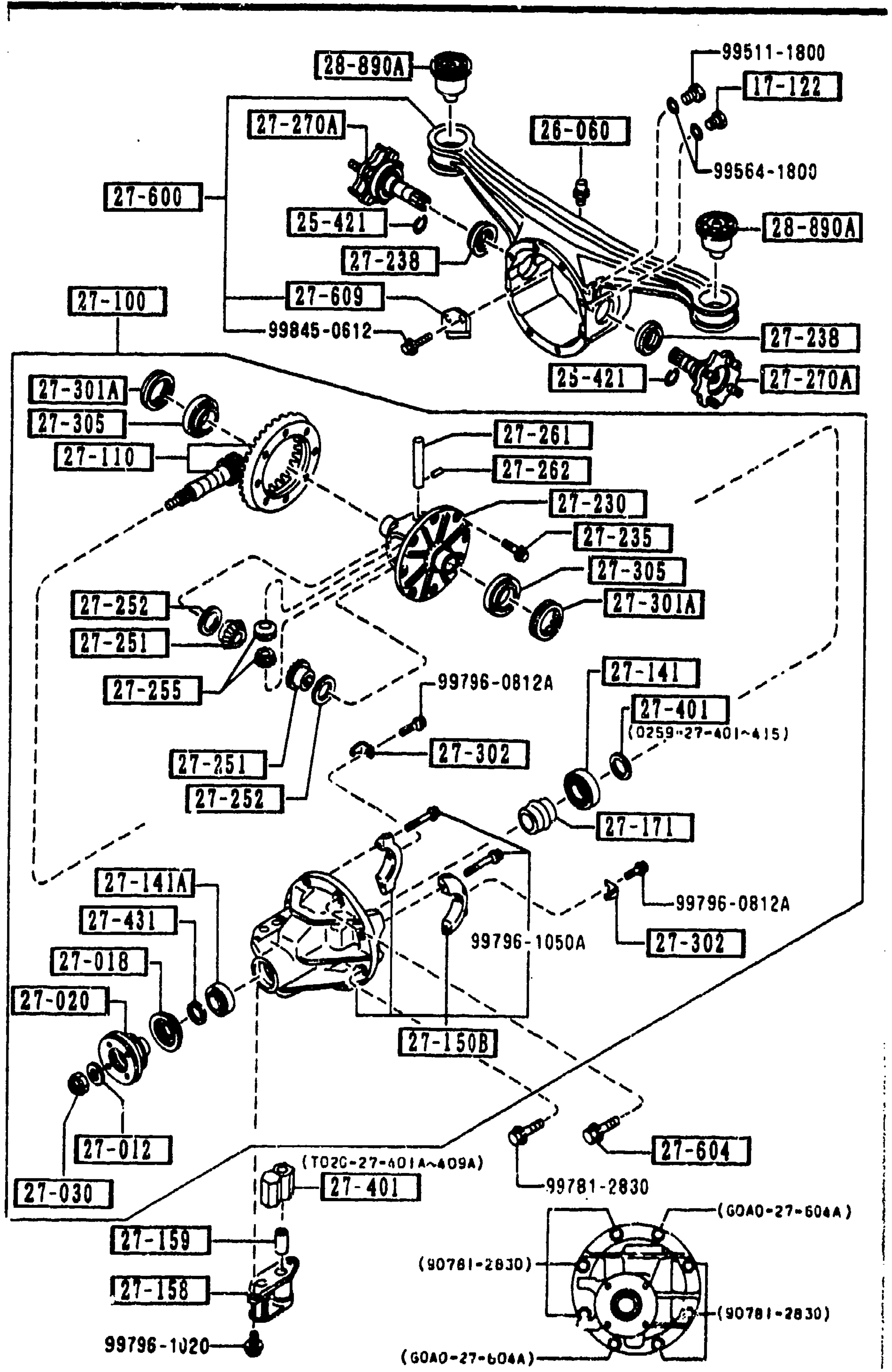
(G0A0-27-604A)
27-159
(90781-2830)
(90781-2830)
27-158
99796-1020
(G0A0-27-604A)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D A (T020-27-150D)					
T020-27-150D	1				9801-
27-158		SPACE			
T020-27-158A	1				
27-159		PIN,TUBULAR			
T020-27-159A	1				
27-171		PIECE,DISTANCE			
T020-27-171	1				
27-230		CASE			
T005-27-231	1				
27-235		BOLT,RING GEAR			
3919-27-235	8	D=10.2MM			
3919-27-236	8	D=10MM			
27-238		SEAL,OIL			
T020-27-238	2				
27-251		GEAR,DIFF.SIDE			
F035-27-251	2				
27-252		WASHER			
F001-27-252	2	T=2MM			
F001-27-253	2	T=2.1MM			
F001-27-254	2	T=2.2MM			
27-255		PINION,DIFFERENTIAL			
T020-27-255	2				
27-261		SHAFT,DIFF. PINION			
F001-27-261A	1				
27-262		PIN			

9801 NA35**-116316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99564-1800
27-600
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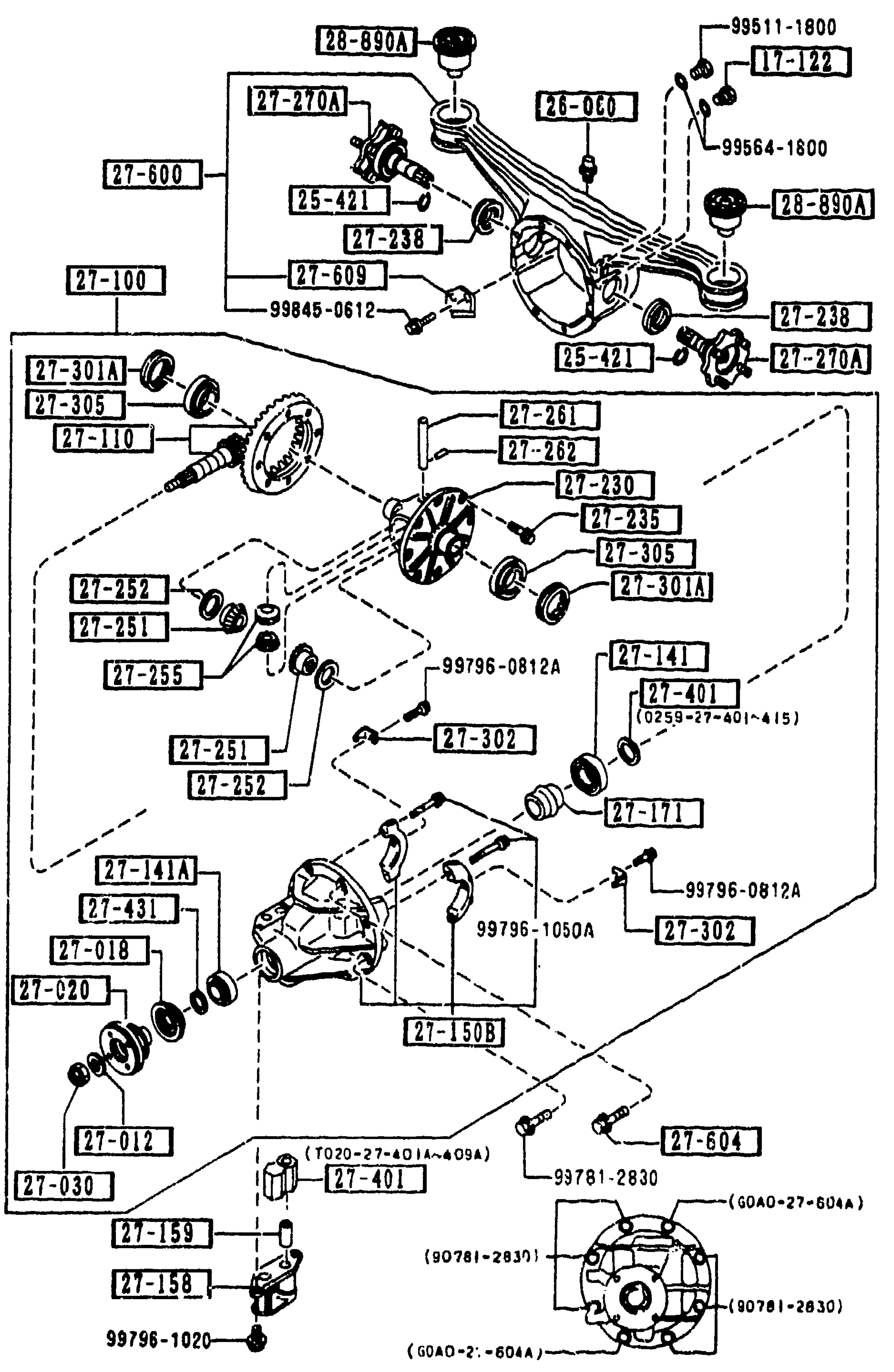
(90781-2830)
27-158
(90781-2830)
99796-1020
(GOA0-27-604A)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D 0114-27-262	1				
27-270A		SHAFT,OUT PUT			
T005-27-270B	2				
27-301A		SCREW,ADJUST			
0180-27-301A	2				
27-302		PLATE,LOCK			
0290-27-302	2				
27-305		BEARING			
0249-27-350	2				
27-401		SPACER			
0259-27-401	1	T=3.08MM			
0259-27-402	1	T=3.11MM			
0259-27-403	1	T=3.14MM			
0259-27-404	1	T=3.17MM			
0259-27-405	1	T=3.2MM			
0259-27-406	1	T=3.23MM			
0259-27-407	1	T=3.26MM			
0259-27-408	1	T=3.29MM			
0259-27-409	1	T=3.32MM			
0259-27-411	1	T=3.35MM			
0259-27-412	1	T=3.38MM			
0259-27-413	1	T=3.41MM			
0259-27-414	1	T=3.44MM			
0259-27-415	1	T=3.47MM			
T020-27-401A		L=50.850			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27-158
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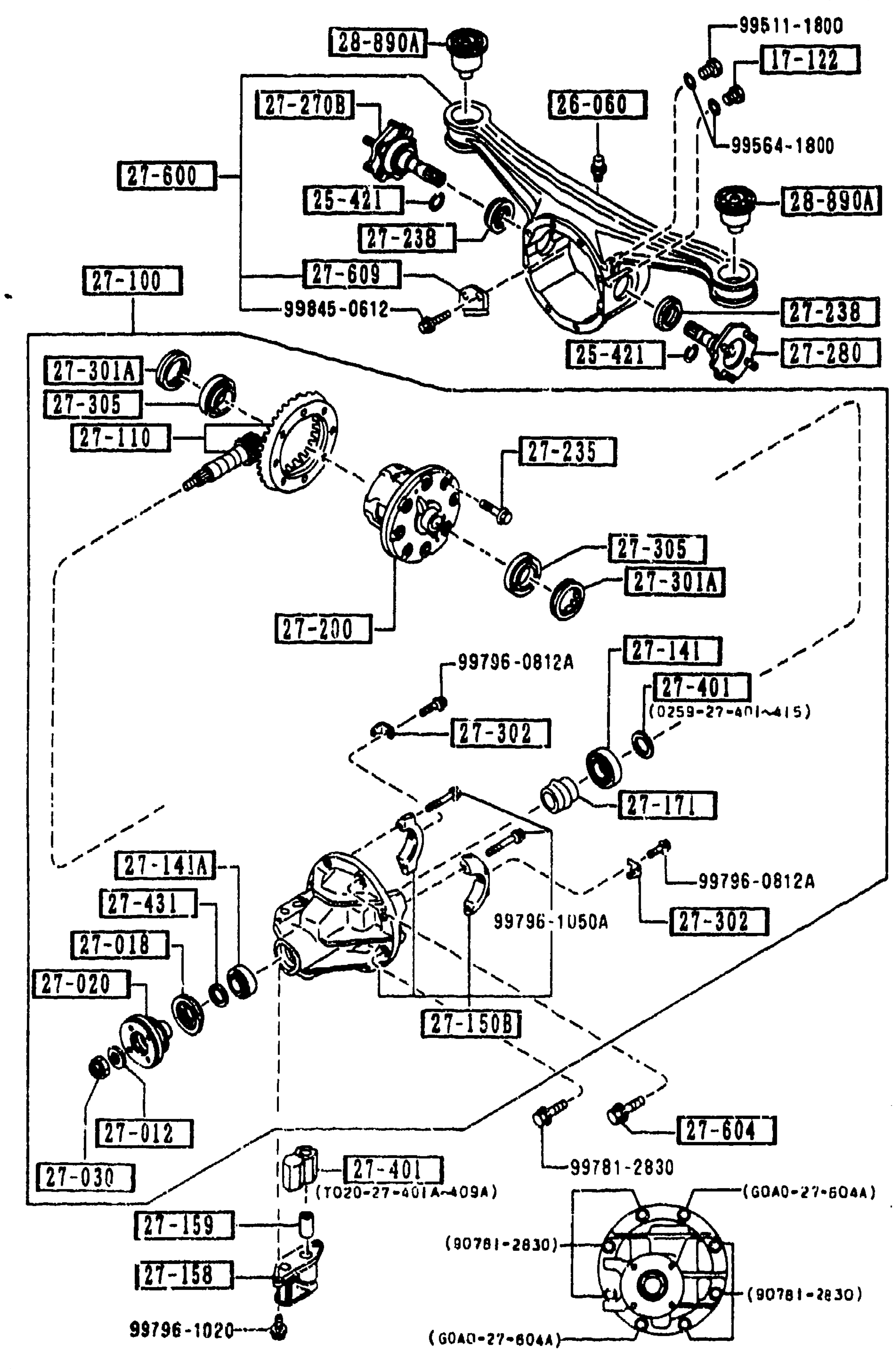
99796-1020
(G0A0-2?-604A)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D	1				-0401
T020-27-402A	1	L=50.875			-0401
T020-27-403A	1	L=50.900			-0401
T020-27-404A	1	L=50.925			-0401
T020-27-405A	1	L=50.950			-0401
T020-27-406A	1	L=50.975			-0401
T020-27-407A	1	L=51.000			-0401
T020-27-408A	1	L=51.025			-0401
T020-27-409A	1	L=51.050			-0401
27-431		SPACER			
T001-27-431	1				
27-600		CASING,DIFFERNTIAL			
T020-27-600D A (T020-27-600E)	1				-9609
T020-27-600E A (T020-27-600F)	1				9609-9926
T020-27-600F	1				9926-
27-604		BOLT,CARRIER			
G0A0-27-604A	2				
27-609		PLATE,BAFFLE-DIFF CASING			
M0A1-27-609A	1				
28-890A		RUBBER,SUB FRAME MTG			
NA01-28-890	2				

9609 NA35※※-108360
9926 NA35※※-122890
0401 NA35※※-146561

2710 A REAR DIFFERENTIALS (LIMITED SLIP DIFF.)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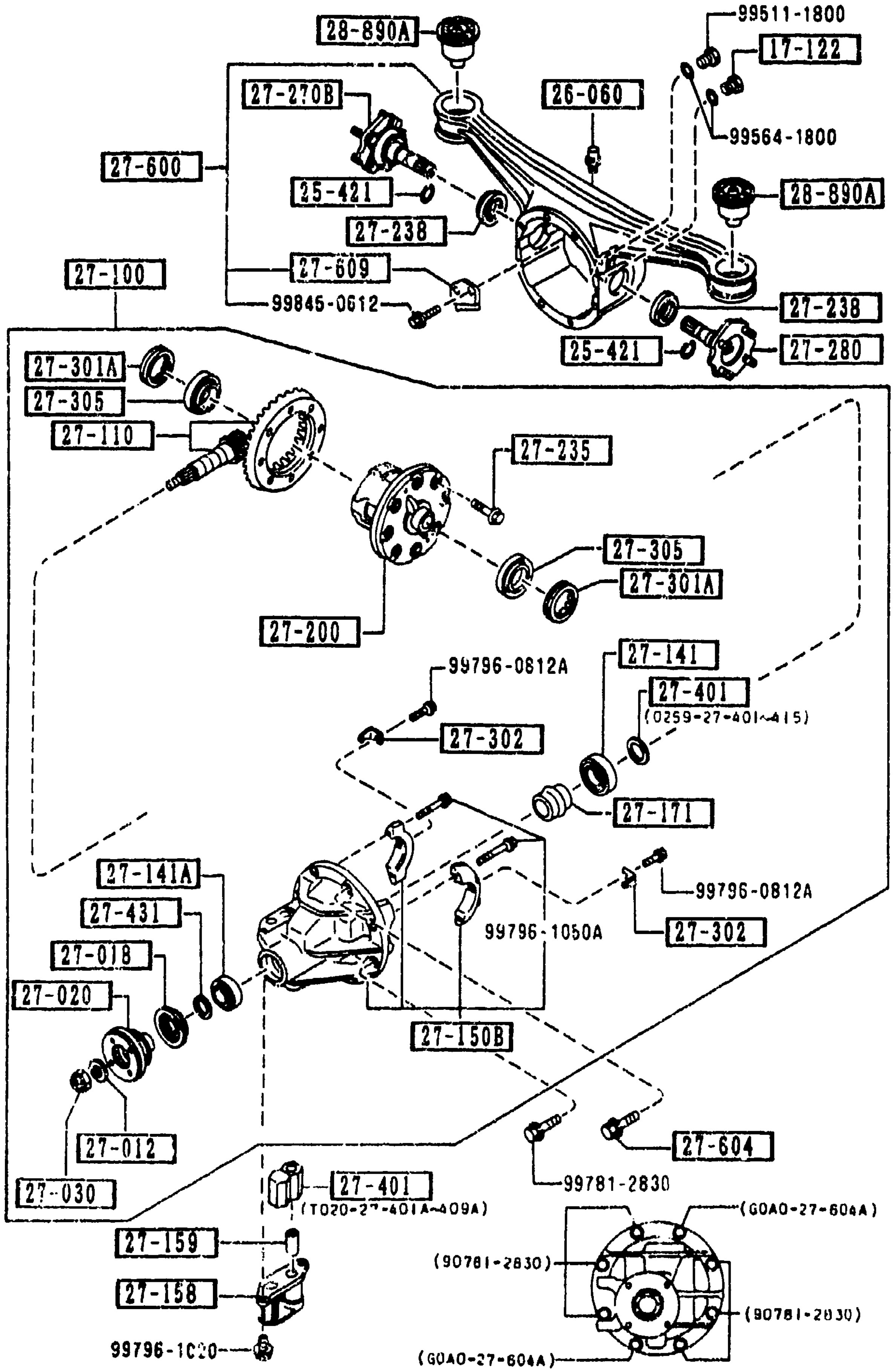
2710 A-1 REAR DIFFERENTIALS (LIMITED SLIP DIFF.)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-122		PLUG,MAGNET			
0810-17-121	1				
25-421		CLIP			
F001-25-421A	2				
26-060		BREATHER			
0730-26-060	1				
27-012		WASHER			
3919-27-012	1				
27-018		SEAL,OIL			
T020-27-165	1				
27-020		FLANGE,COMPANION			
T002-27-120A AN(T002-27-120B)	1				-9721
T002-27-120B	1				9721-
27-030		NUT,LOCK			
3919-27-130	1				
27-100		DRIVING & DIFF.			
T025-27-100F A (T025-27-100G)	1				-9405
T025-27-100G AN(T025-27-100H)	1				9405-9721
T025-27-100H A (T025-27-100J)	1				9721-9801
T025-27-100J	1				9801-
27-110		GEAR SET,FINAL			
T020-27-110B	1	R=4.300			
27-141		BEARING,PINION			
0755-27-210	1				
27-141A		BEARING,PINION			
3919-27-220	1				

9405 NA35**-100118
9721 NA35**-114922
9801 NA35**-116316

2710 A REAR DIFFERENTIALS (LIMITED SLIP DIFF.)


28-890A
99511-1800
17-122
27-270B
26-060
99564-1800
27-600
25-421
28-890A
27-238
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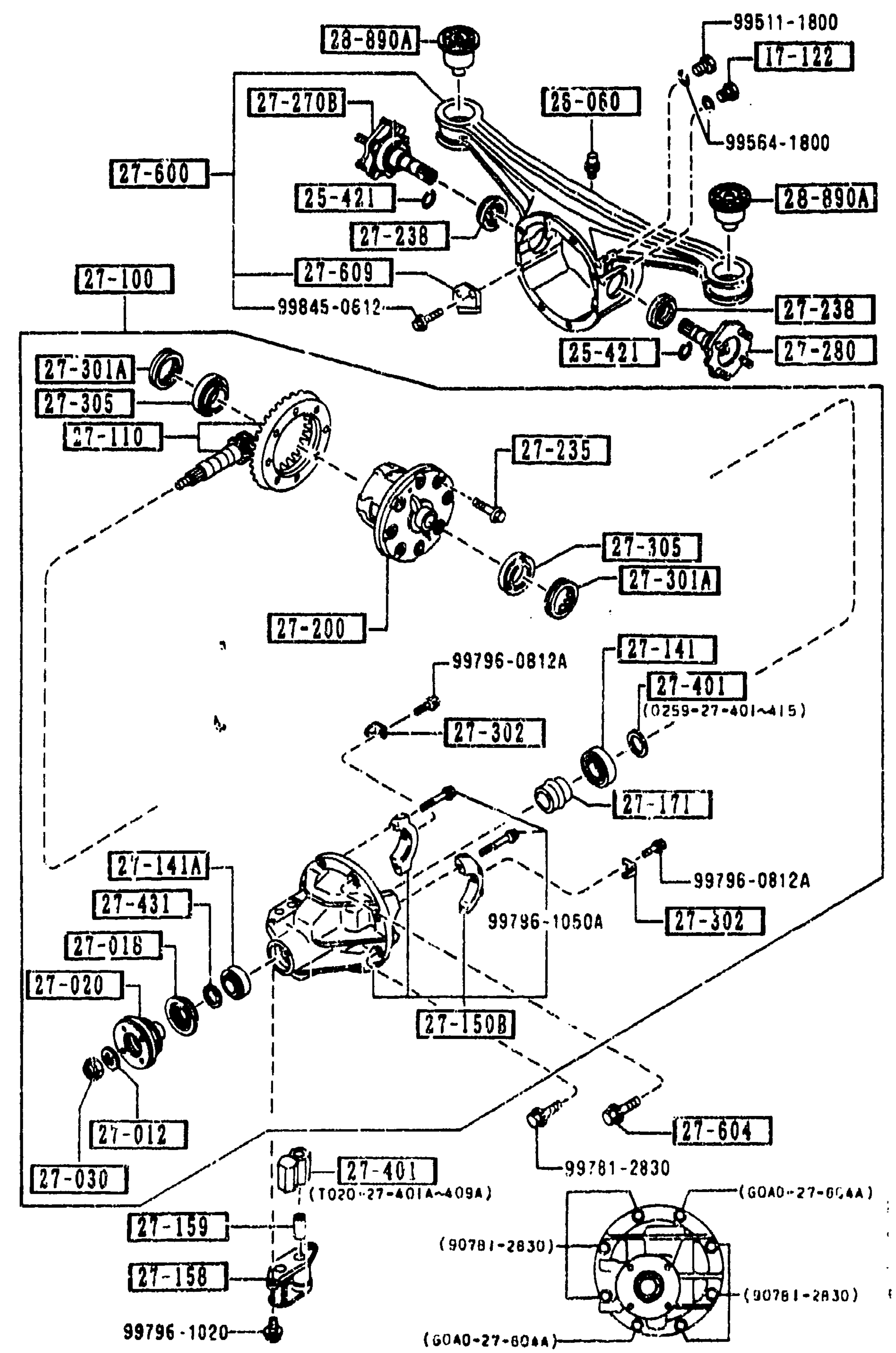
27-100
99845-0612
27-238
25-421
27-280
27-301A
27-305
27-110
27-235
27-305
27-301A
27-200
27-141
99796-0812A
27-401
(0259-27-401~415)
27-302
27-171
27-141A
99796-0812A
27-431
99796-1050A
27-302
27-018
27-020
27-150B
27-012
27-604
27-030
99781-2830
27-401
(T020-27-401A~409A)
(G0A0-27-604A)
27-159
(90781-2830)
27-158
(90781-2830)
99796-1C20
(G0A0-27-604A)

2710 A-2 REAR DIFFERENTIALS (LIMITED SLIP DIFF.)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
27-150B		CARRIER,DIFFERTIAL-FRT			
T020-27-150C A (T020-27-150D)	1				-9801
T020-27-150D	1				9801-
27-158		SPACE			
T020-27-158A	1				
27-159		PIN,TUBULAR			
T020-27-159A	1				
27-171		PIECE,DISTANCE			
T020-27-171	1				
27-200		DIFFERENTIAL			
T016-27-200A A (T016-27-200B)	1				-9405
T016-27-200B	1				9405-
27-235		BOLT,RING GEAR			
3919-27-235	8	D=10.2MM			
3919-27-236	8	D=10MM			
27-238		SEAL,OIL			
T020-27-238	2				
27-270B		SHAFT(R),OUTPUT			
T015-27-270	1				
27-280		SHAFT(L),OUTPUT			
T015-27-280	1				
27-301A		SCREW,ADJUST			
0180-27-301A	2				
27-302		PLATE,LOCK			
0290-27-302	2				
27-305		BEARING			
0249-27-350	2				

9405 NA35**-100118
9801 NA35**-116316

2710 A REAR DIFFERENTIALS
(LIMITED SLIP DIFF.)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99511-1800
17-122
27-270B
26-060
99564-1800
27-600
25-421
28-890A
27-238
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27-609
99845-0612
27-238
25-421
27-280
27-301A
27-305
27-110
27-235
27-305
27-301A
27-200
99796-0812A
27-141
27-401
(0259-27-401~415)
27-302
27-171
27-141A
99796-0812A
27-431
99796-1050A
27-302
27-018
27-020
27-150B
27-012
27-604
27-030
27-401
(T020-27-401A~409A)
99781-2830
(GOA0-27-604A)
27-159
(90781-2830)
27-158
(90781-2830)
99796-1020
(GOA0-27-604A)

2710 A-3 REAR DIFFERENTIALS
(LIMITED SLIP DIFF.)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
27-401		SPACER			
0259-27-401	1	T=3.08MM			
0259-27-402	1	T=3.11MM			
0259-27-403	1	T=3.14MM			
0259-27-404	1	T=3.17MM			
0259-27-405	1	T=3.2MM			
0259-27-406	1	T=3.23MM			
0259-27-407	1	T=3.26MM			
0259-27-408	1	T=3.29MM			
0259-27-409	1	T=3.32MM			
0259-27-411	1	T=3.35MM			
0259-27-412	1	T=3.38MM			
0259-27-413	1	T=3.41MM			
0259-27-414	1	T=3.44MM			
0259-27-415	1	T=3.47MM			
T020-27-401A	1	L=50.850			-0401
T020-27-402A	1	L=50.875			-0401
T020-27-403A	1	L=50.900			-0401
T020-27-404A	1	L=50.925			-0401
T020-27-405A	1	L=50.950			-0401
T020-27-406A	1	L=50.975			-0401
T020-27-407A	1	L=51.000			-0401
T020-27-408A	1	L=51.025			-0401

0401 NA35**-146561

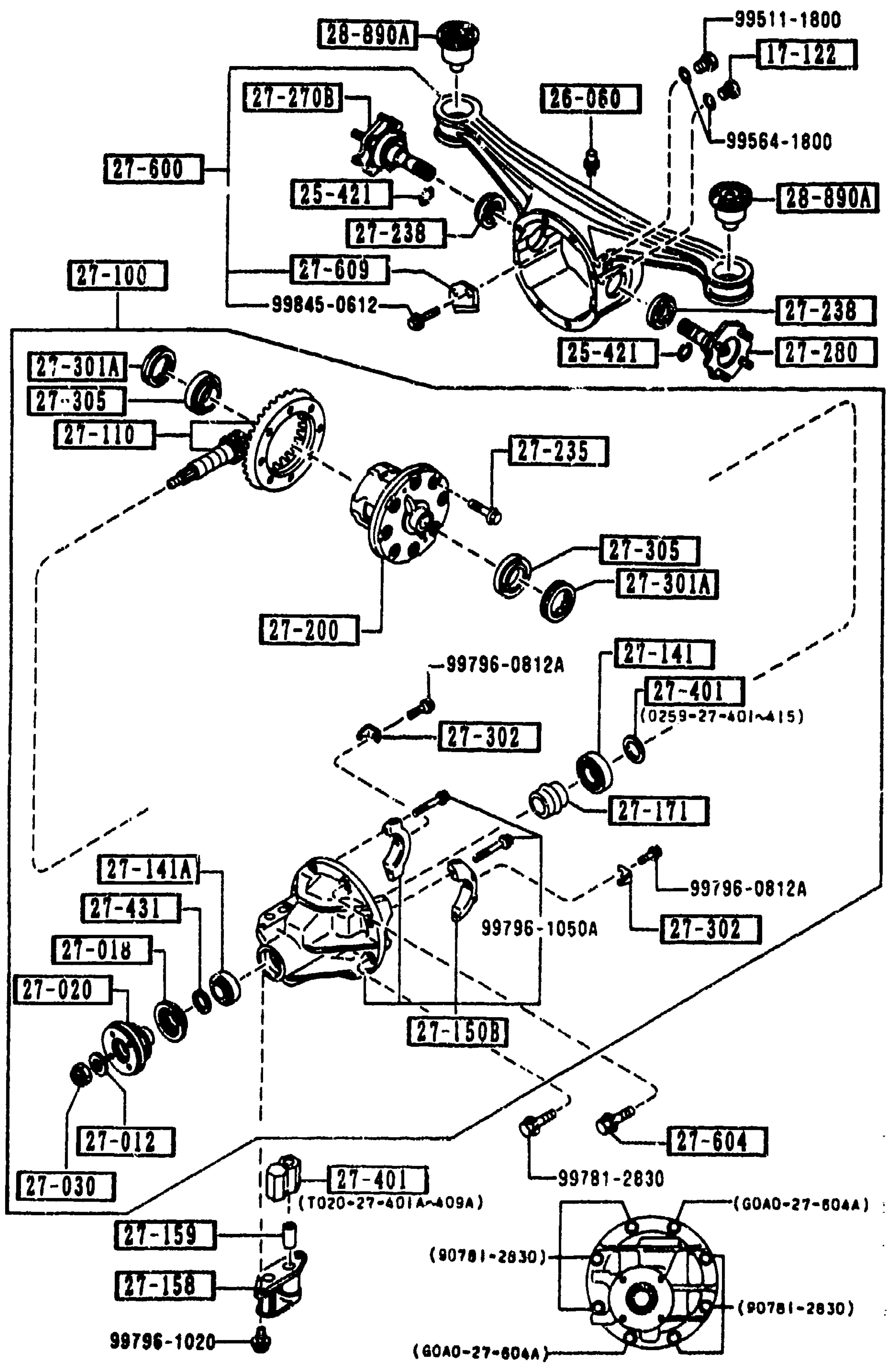
SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM			
1-D11	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM (AT)			
1-F11	2610	REAR BRAKE MECHANISMS						
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-D12	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-I12	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-I13	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-C14	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-D15	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMISSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-I15	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						

CATLOG-NO= AUNA01-07

DATE. 1992-02

2710 A REAR DIFFERENTIALS (LIMITED SLIP DIFF.)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27-600
25-421
28-890A
27-238
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99845-0612
27-238
25-421
27-280
27-301A
27-305
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27-235
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27-200
99796-0812A
27-141
27-401
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27-431
99796-0812A
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27-018
27-020
27-150B
27-604
27-012
99781-2830
27-030
27-401
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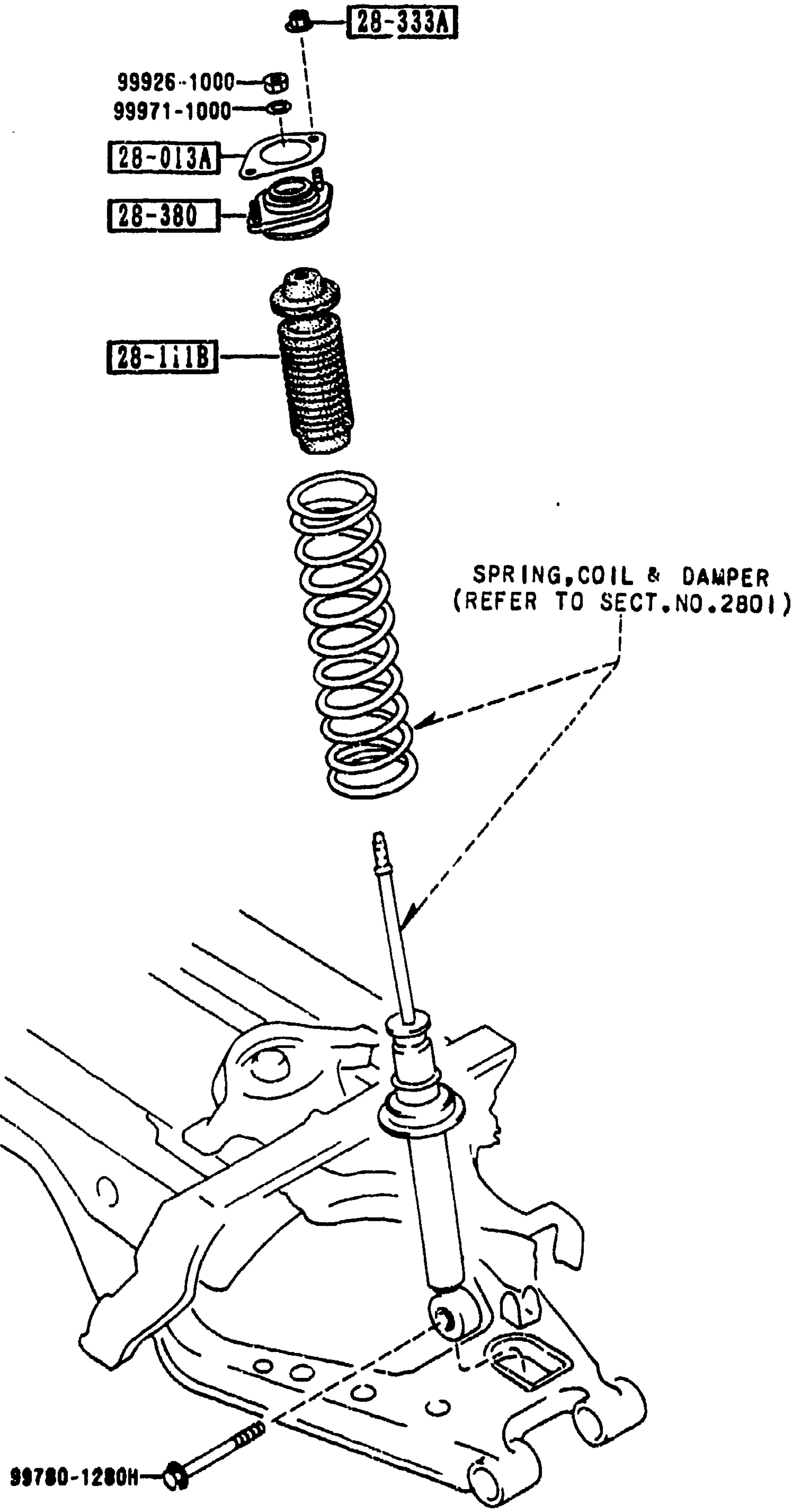
(G0A0-27-604A)
27-159
(90781-2830)
27-158
(90781-2830)
99796-1020
(G0A0-27-604A)

2710 A-4 * REAR DIFFERENTIALS (LIMITED SLIP DIFF.)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D T020-27-409A	1	L=51.050			-0401
27-431		SPACER			
T001-27-431	1				
27-600		CASING,DIFFERNTIAL			
T020-27-600D A (T020-27-600E)	1				-9609
T020-27-600E A (T020-27-600F)	1				9609-9926
T020-27-600F	1				9926-
27-604		BOLT,CARRIER			
G0A0-27-604A	2				
27-609		PLATE,BAFFLE-DIFF CASING			
M0A1-27-609A	1				
28-890A		RUBBER,SUB FRAME MTG			
NA01-28-890	2				

9609 NA35**-108360
9926 NA35**-122890
0401 NA35**-146561

2800 REAR SUSPENSION MECHANISMS

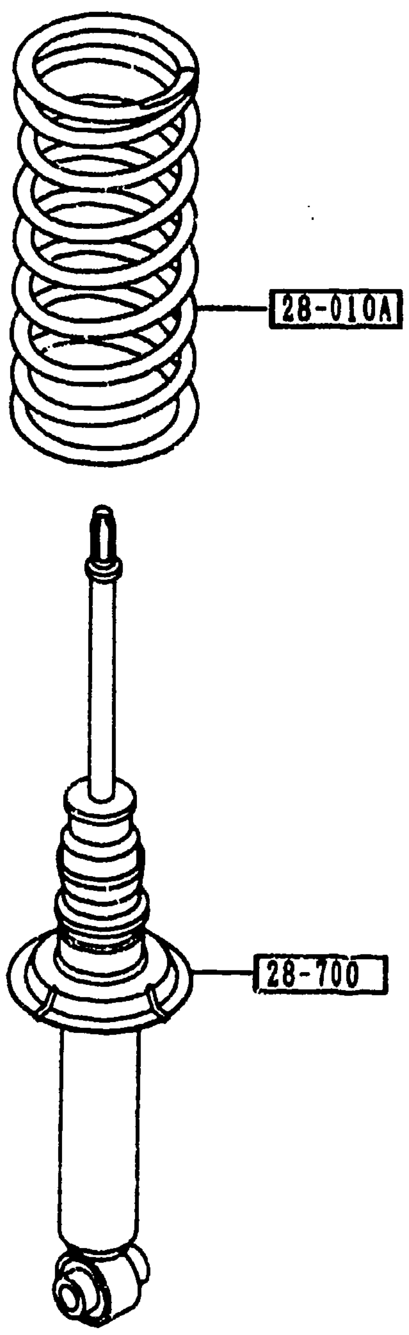

28-333A
99926-1000
99971-1000
28-013A
28-380
28-111B
SPRING,COIL & DAMPER
(REFER TO SECT.NO.2801)
99780-1280H

2800 -1 * REAR SUSPENSION MECHANISMS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
28-013A		SHEET,RUBBER			
G030-28-013A	2				9330-
28-111B		STOPPER,BUMP			
NA01-28-111	2				
28-333A		NUT,FLANGE			
H001-28-333	4				
28-380		RUBBER,MOUNTING			
NA01-28-380A	2				

9330 NA35**-100072

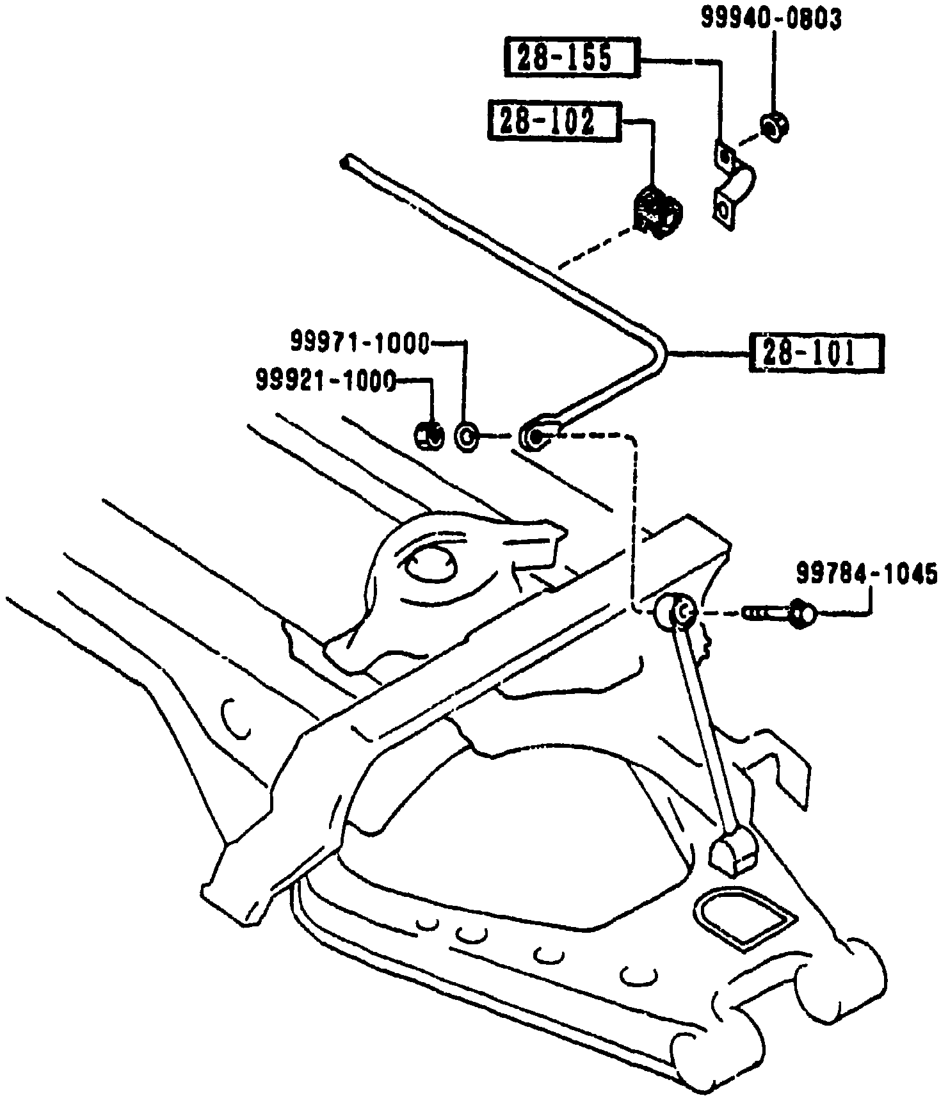
2801 REAR SPRING & DAMPER



2801 -1 M REAR SPRING & DAMPER

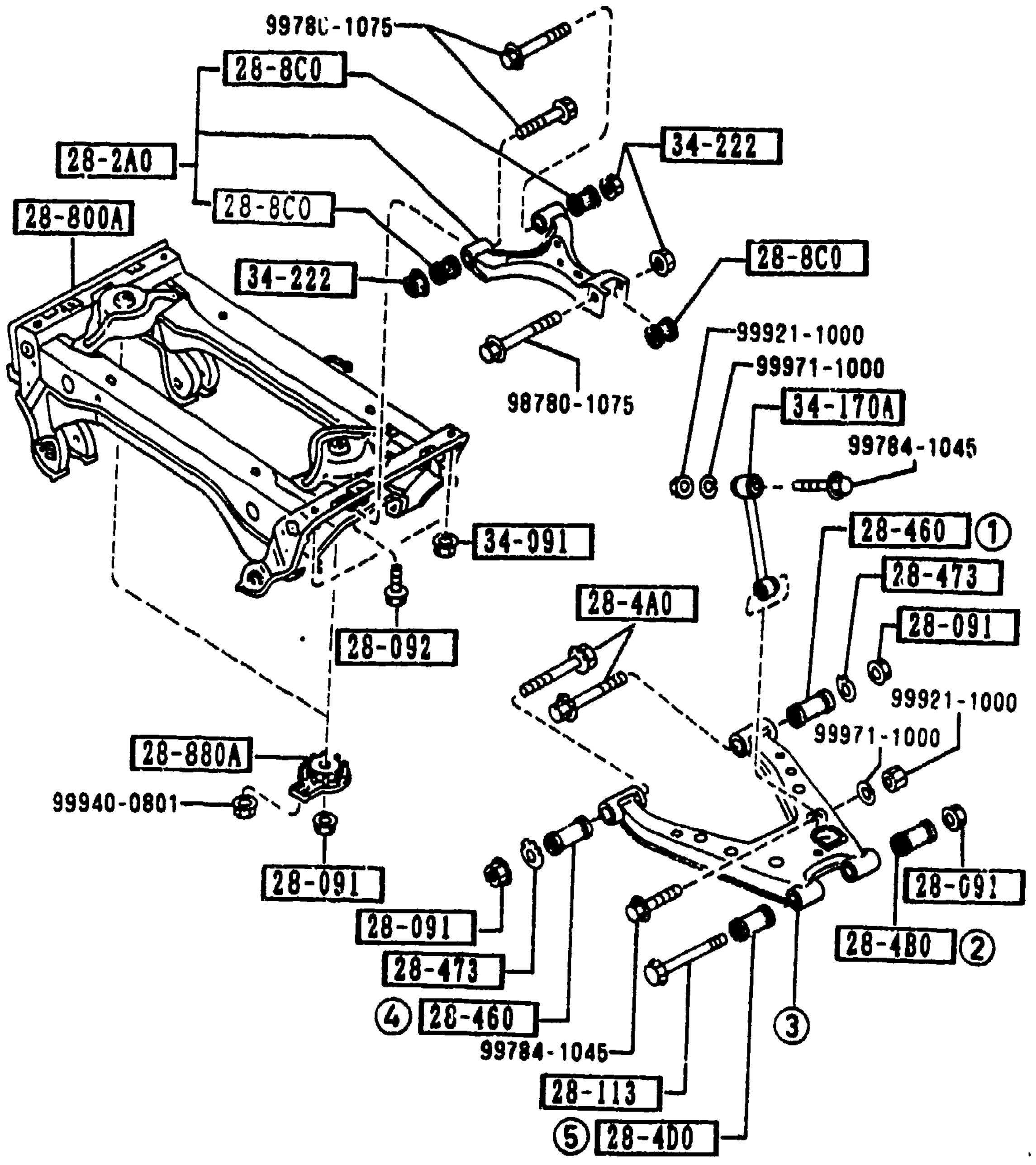
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
28-010A		SPRING,COIL-REAR			
NA01-28-011B	2	(MT)			
NA03-28-011	2	(AT)			
28-700		DAMPER,REAR			
NA01-28-700	2				

2810 REAR STABILIZER


99940-0803
28-155
28-102
99971-1000
99921-1000
28-101
99784-1045

2810 -1 * REAR STABILIZER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
28-101 NA01-28-151A	1	STABILIZER,RR			
28-102 FB01-28-156	2	BUSH,STABILIZER-RR			
28-155 FB01-28-155	2	PLATE,STABILIZER-RR			


99780-1075
28-8C0
28-2A0
28-800A
28-8C0
34-222
34-222
28-8C0
98780-1075
99921-1000
99971-1000
34-170A
99784-1045
28-460 ①
28-473
28-091
34-091
28-092
28-4A0
99921-1000
99971-1000
28-880A
99940-0801
28-091
28-091
28-091
28-473
④ 28-460
99784-1045
28-4B0 ②
③
28-113
⑤ 28-4D0

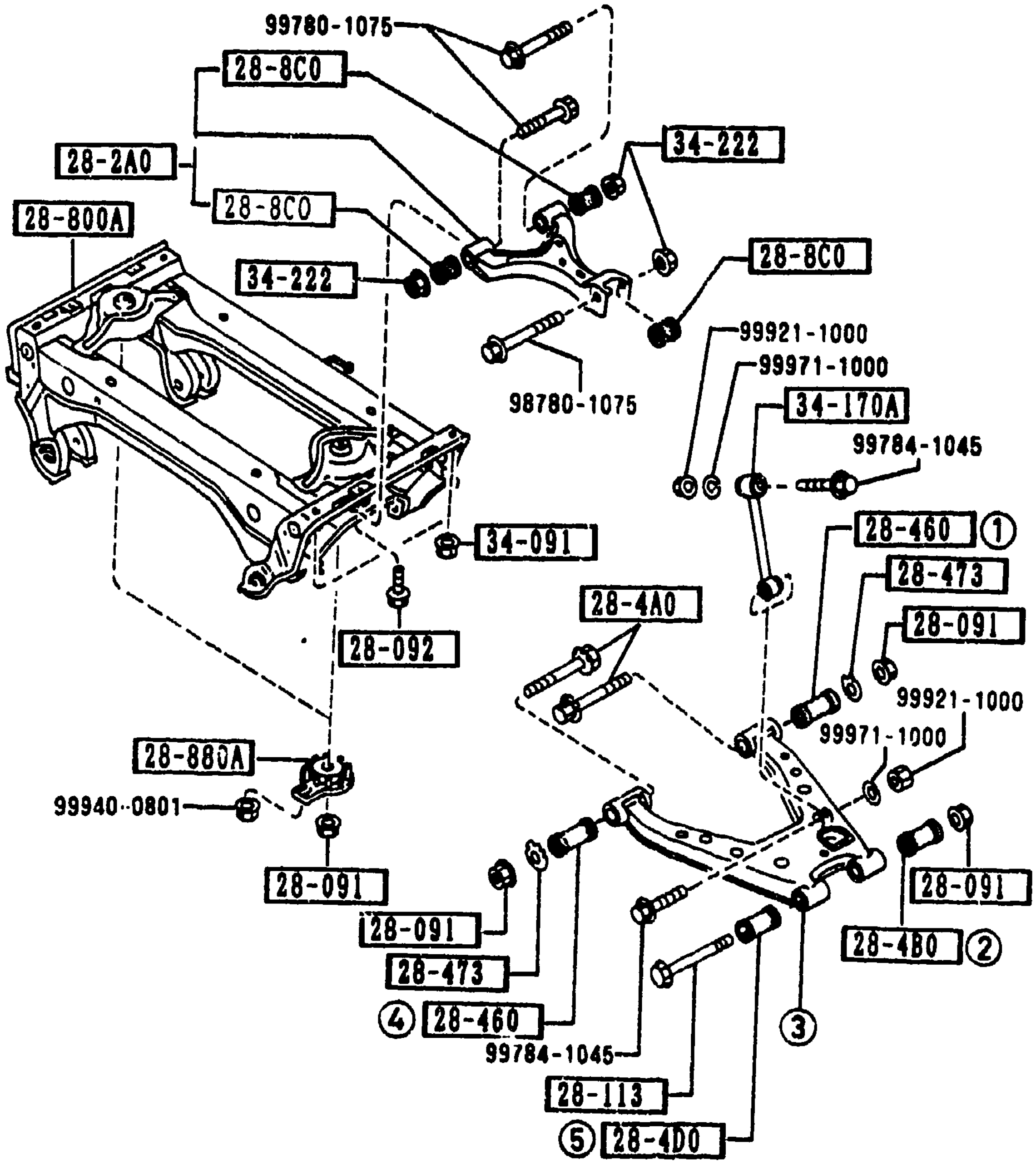
NOTE

① ... ⑤ ⇨ 28-300 28-300Z

THE D-CODE OF 28-300 28-300Z CONSISTS OF FIGURE NUMBERS ① THROUGH ⑤.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
28-091 B037-28-091	8	NUT			
28-092 NA01-28-092	2	BOLT,CONTROL LINK			
28-113 NA01-28-113	2	BOLT			
28-2A0 NA01-28-2A0B	2	ARM,UPPER-REAR			
28-300 NA01-28-300	1	ARM(R),LOWER-REAR			
28-300Z NA01-28-350	1	ARM(L),LOWER-REAR			
28-4A0 NA01-28-4A0	4	BOLT,ADJUST			
28-4B0 NA01-28-4B0	2	BUSHING,RUBBER-LOWER ARM			
28-4D0 NA01-28-4D0	2	BUSHING,RUBBER-LOWER ARM			
28-460 NA01-28-460	4	BUSHING,LOWER ARM			
28-473 NA01-28-473	4	PLATE,CAM-SUB FRAME			
28-8C0 NA01-28-8C0B	6	BUSHING,RUBBER			
28-800A NA01-28-800B	1	MEMBER,CROSS			
28-880A NA01-28-880B	2	WASHER,STOP			

2830 REAR LOWER ARMS & SUB FRAME


99780-1075
28-8C0
28-2A0
28-800A
28-8C0
34-222
34-222
28-8C0
98780-1075
99921-1000
99971-1000
34-170A
99784-1045
34-091
28-460 ①
28-473
28-091
28-092
28-4A0
99921-1000
99971-1000
28-880A
99940-0801
28-091
28-091
28-091
28-473
④ 28-460
99784-1045
28-4B0 ②
③
28-113
⑤ 28-4D0

NOTE

① ... ⑤ ⇨ 28-300 28-300Z

THE D-CODE OF 28-300 28-300Z CONSISTS OF FIGURE NUMBERS ① THROUGH ⑤.

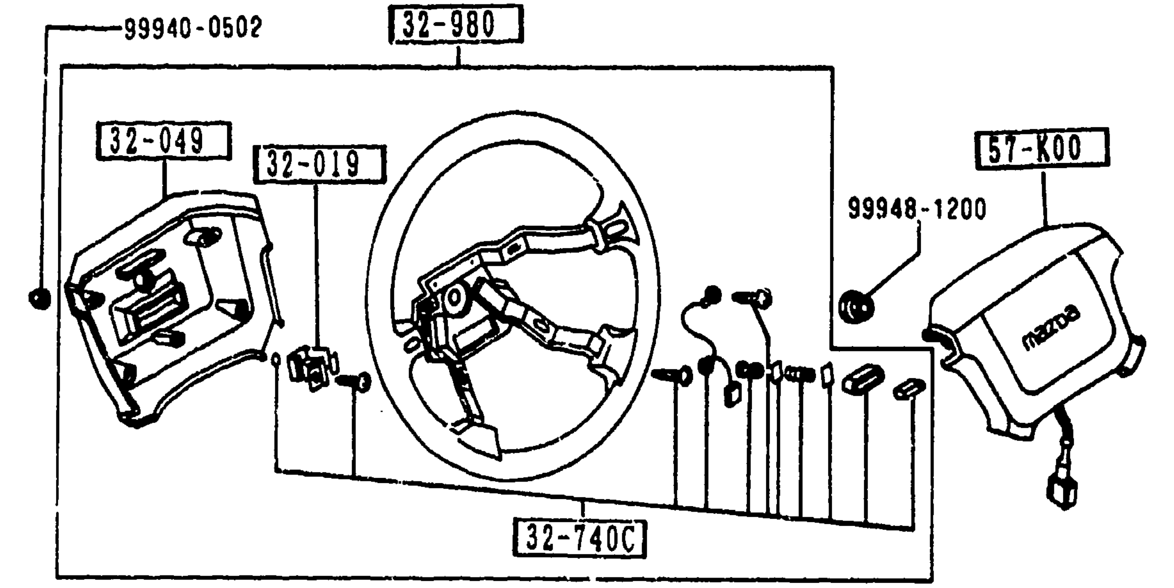
2830 -2 * REAR LOWER ARMS & SUB FRAME

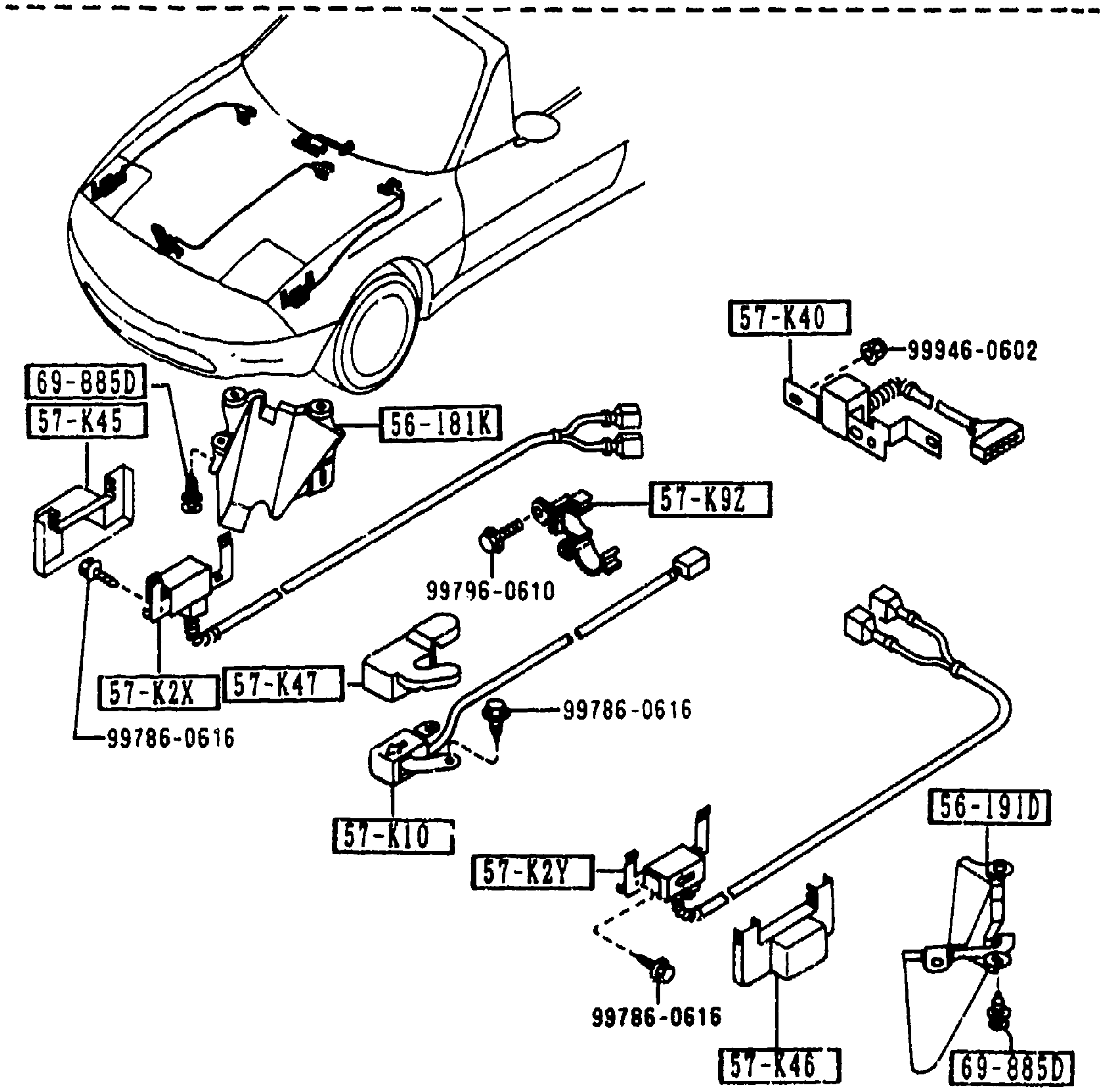
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
34-091		NUT			
FB01-34-091	4				
34-170A		LINK,CONTROL-STAB			
NA01-34-170	2				
34-222		NUT			
8871-34-222	6				

3200 STEERING WHEEL (1/2)

((URETHANE)+(W/AIR BAG))
(LEATHER)

(THIS ILLUSTRATION CONSISTS OF 2 PAGES)


99940-0502
32-980
32-049
32-019
57-K00
99948-1200
32-740C


57-K40
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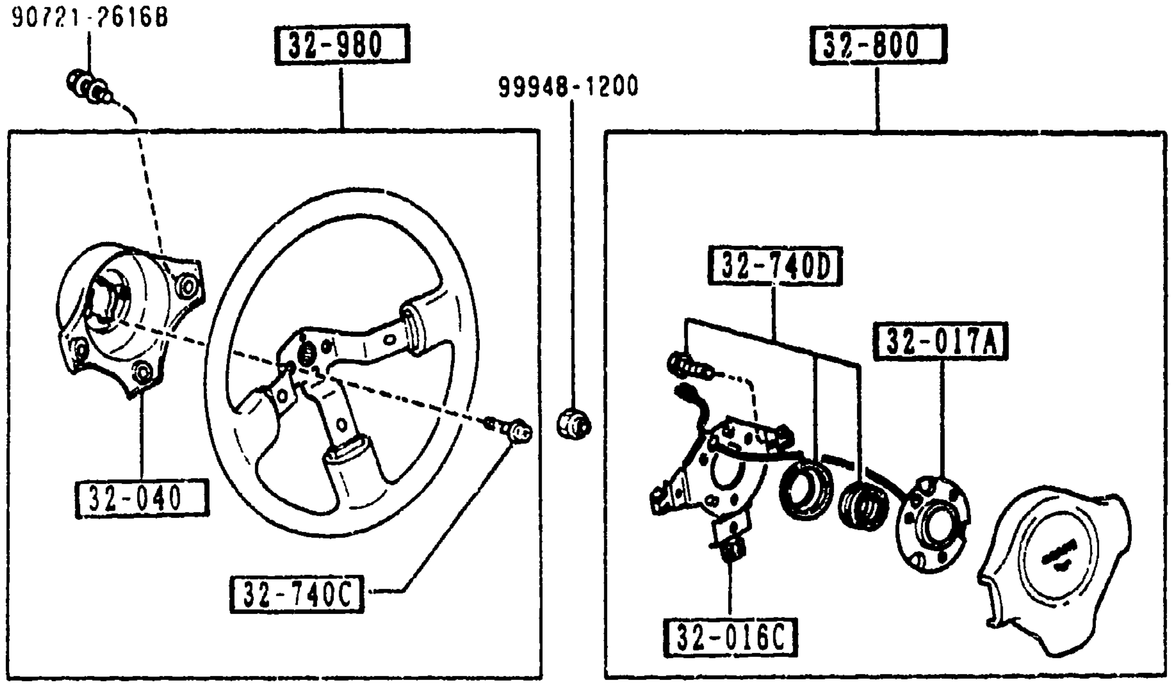
69-885D
57-K45
56-181K
57-K92
99796-0610
57-K2X
57-K47
99786-0616
99786-0616
57-K10
57-K2Y
56-191D
99786-0616
57-K46
69-885D

(CONT'D)

3200 STEERING WHEEL (2/2)

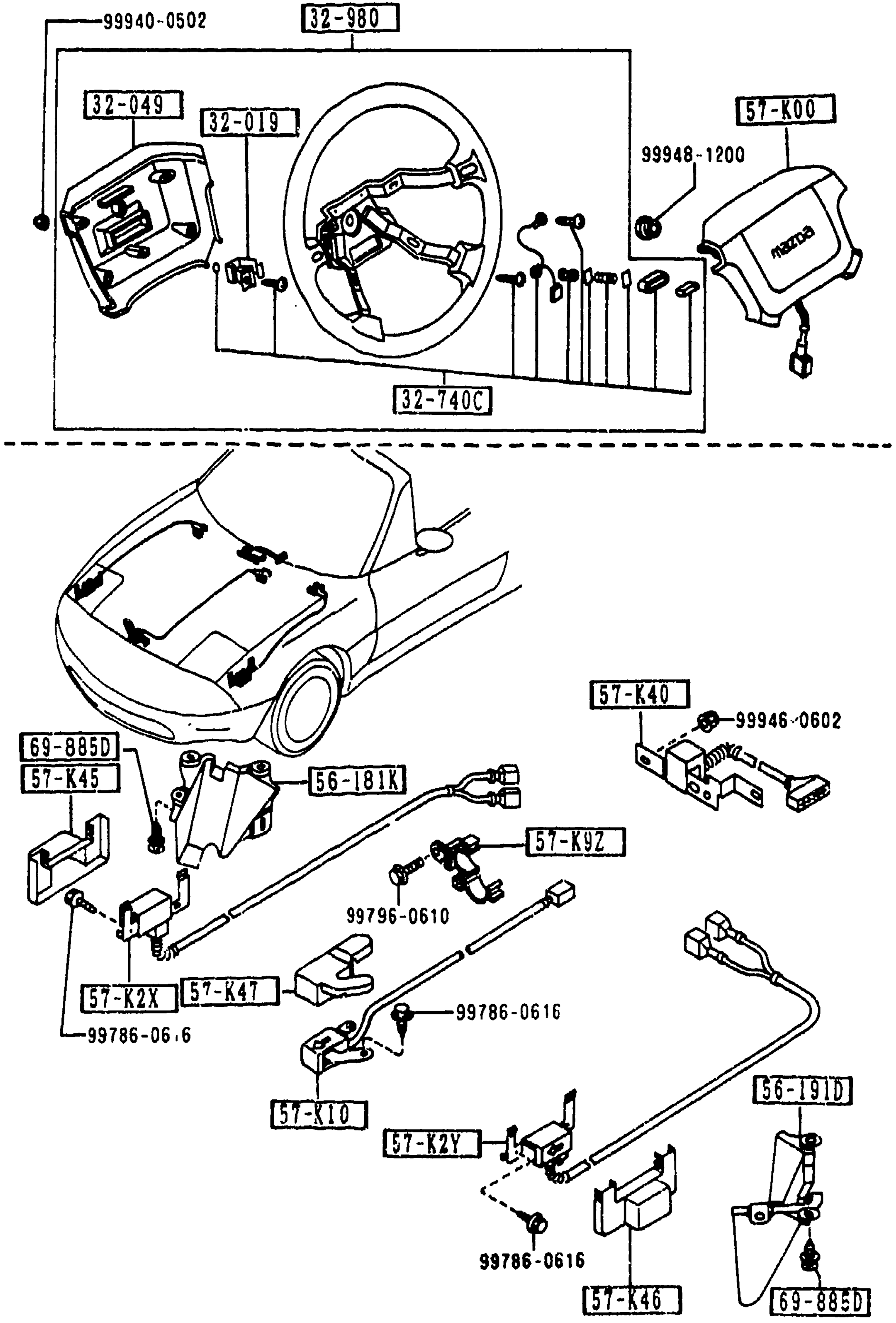
((URETHANE)+(W/O AIR BAG))

(THIS ILLUSTRATION CONSISTS OF 2 PAGES)


90721-2616B
32-980
99948-1200
32-800
32-740D
32-017A
32-040
32-740C
32-016C

3200 STEERING WHEEL (1/2)

((URETHANE)+(W/AIR BAG)) (THIS ILLUSTRATION CONSISTS OF 2 PAGES)
(LEATHER)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32-980
32-049
32-019
57-K00
99948-1200
mazda
32-740C
57-K40
99946-0602
69-885D
57-K45
56-181K
57-K9Z
99796-0610
57-K2X
57-K47
99786-0616
99786-0616
57-K10
57-K2Y
56-191D
99786-0616
57-K46
69-885D

(CONT'D)

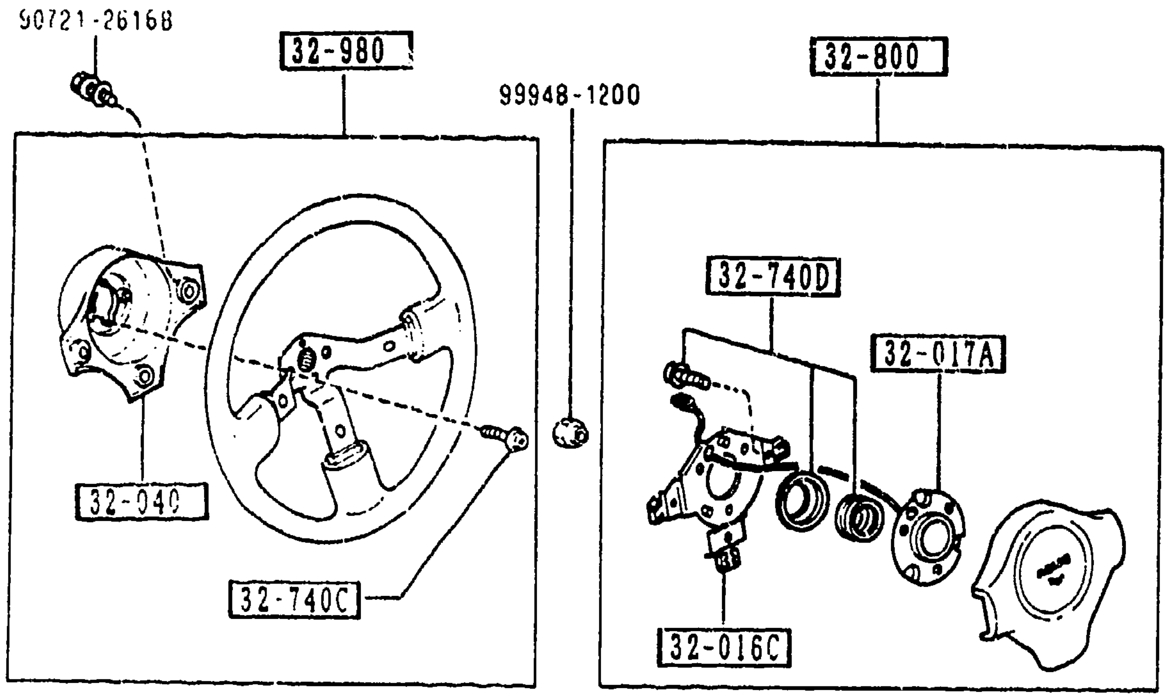
3200 -1 STEERING WHEEL

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-016C		PLATE,CONTACT			
B461-32-020	1	BASE, (W/O AIR BAG)			0701-
32-017A		PLATE,CONTACT			
B461-32-030	1	BASE, (W/O AIR BAG)			0701-
32-019		BRACKET,COUPLER			
NA01-32-019	1	PKG-OPT, V-SPECIAL, (W/AIR BAG)			
32-040		COVER,ST.WHEEL BOSS			
B461-32-040	1	BASE, (W/O AIR BAG)			0701-
32-049		COVER,WHEEL CORE			
NA01-32-049	1	PKG-OPT, V-SPECIAL, (W/AIR BAG)			
32-740C		PARTS SET,ST. WHEEL			
NA01-32-750	1	PKG-OPT, V-SPECIAL, (W/AIR BAG)			
B461-32-750	1	BASE, (W/O AIR BAG)			0701-
32-740D		PARTS SET,HORN CAP			
B461-32-740	1	BASE, (W/O AIR BAG)			0701-
32-800		CAP,HORN			
B461-32-800A	1	BASE, (W/O AIR BAG)			0701-
32-980		BOSS,STEERING WHEEL			
NA01-32-980B	1	(URETHANE+W/AIR BAG)			
NA02-32-980B	1	PKG-OPT, V-SPECIAL, (LEATHER)			
B461-32-980	1	(URETHANE+W/O AIR BAG)			0701-
56-181K		COVER(R),SENSOR-AIR BAG			
NA01-56-191A	1	(W/AIR BAG)			

0701 NA35MM-200041

3200 STEERING WHEEL (2/2)

((URETHANE)+(W/O AIR BAG)) (THIS ILLUSTRATION CONSISTS OF 2 PAGES)

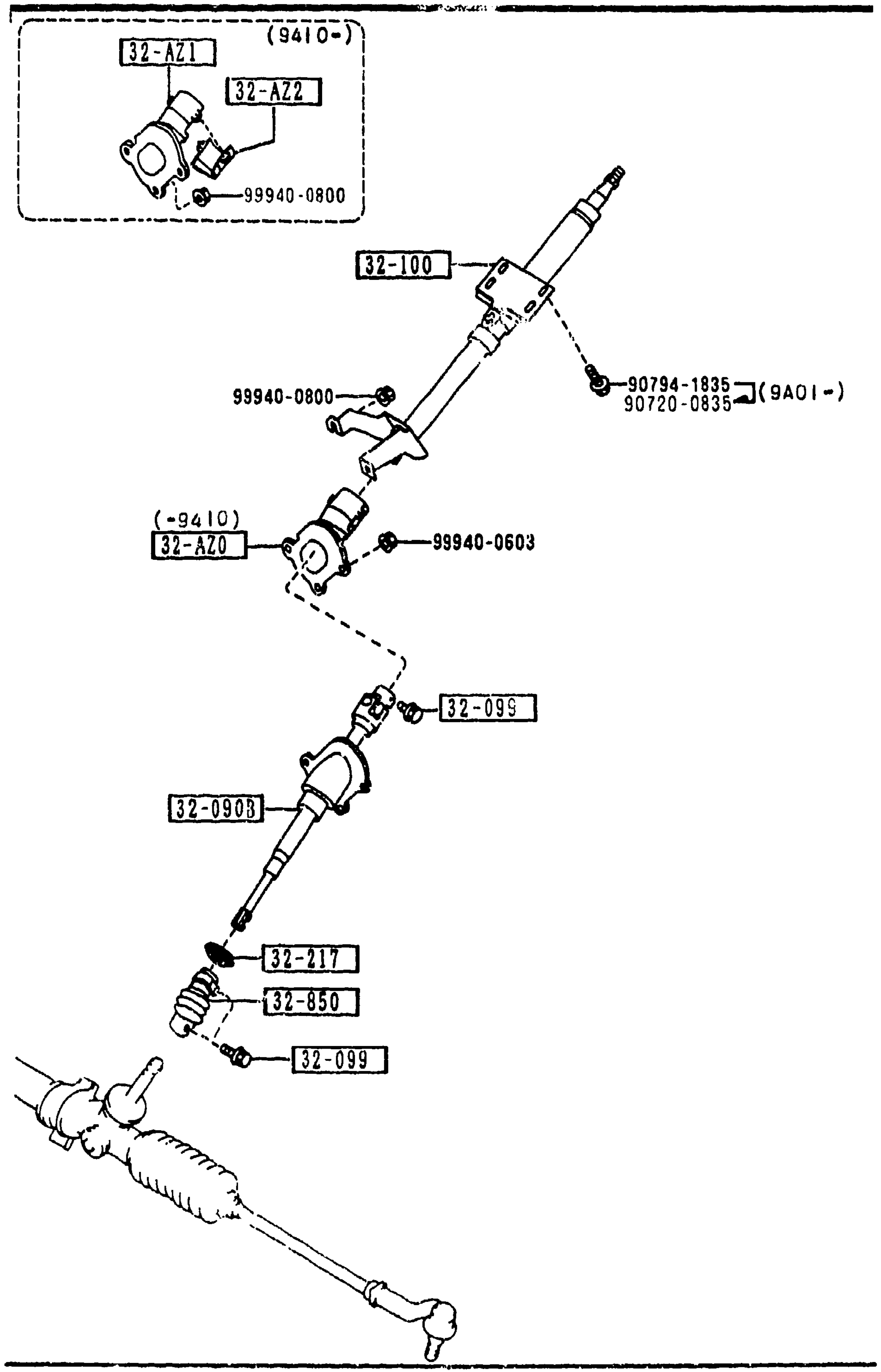


3200 -2 * STEERING WHEEL

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-191D		COVER(L),SENSOR-AIR BAG			
NA01-56-181A	1	(W/AIR BAG)			
57-K00		MODULE,AIR BAG			
NA01-57-K00A	1	(W/AIR BAG)			
00		NAO BLACK			
57-K10		SENSOR(C),AIR BAG			
NA01-57-K10G A (NA01-57-K10H)	1				-9601
NA01-57-K10H	1	(W/AIR BAG)			9601-
57-K2X		SENSOR(R),AIR BAG			
NA01-57-K2XJ	1	(W/AIR BAG)			
57-K2Y		SENSOR(L),AIR BAG			
NA01-57-K2YJ	1	(W/AIR BAG)			
57-K40		SENSOR,AIR BAG-INNER			
NA01-57-K40D	1	(W/AIR BAG)			
57-K45		COVER(R),SENSOR			
NA01-57-K45B	1	(W/AIR BAG)			
57-K46		COVER(L),SENSOR			
NA01-57-K46B	1	(W/AIR BAG)			
57-K47		COVER(C),SENSOR			
NA01-57-K47B	1	(W/AIR BAG)			
57-K9Z		BRACKET,CLIP			
NA01-57-K9ZA A (NA01-57-K9ZB)	1				-9516
NA01-57-K9ZB	1	(W/AIR BAG)			9516-
69-885D		FASTENER			
NA01-56-145	8	(W/AIR BAG)			

9516 NA35**-103924
9601 NA35**-106797

3210 STEERING COLUMN & SHAFTS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32-AZ1
32-AZ2
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32-100
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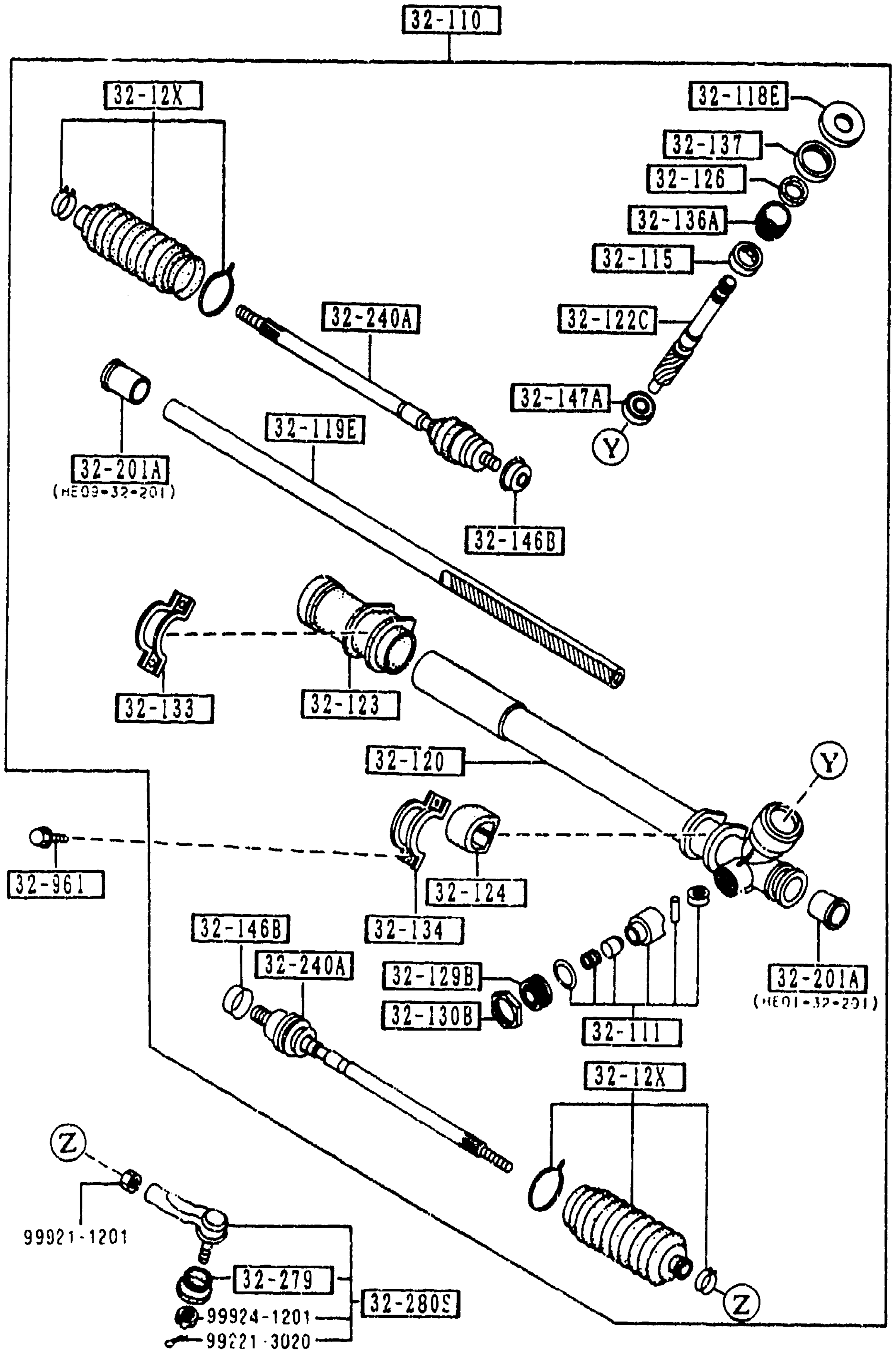
90720-0835
(9A01-)
(-9410)
32-AZ0
99940-0603
32-099
32-090B
32-217
32-850
32-099

3210 -1 * STEERING COLUMN & SHAFTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-AZ0		COVER,JOINT			
NA01-32-AZ0A (NA01-32-AZ2A)	1				-9410
32-AZ1		COVER,JOINT-UPPER			
NA01-32-AZ1B	1				9401-
32-AZ2		COVER,JOINT-LOWER			
NA01-32-AZ2A	1				9410-
32-090B		SHAFT,INTERMED.			
NA01-32-090A AN(NA01-32-090B)	1				-0301
NA02-32-090A AN(NA02-32-090B)	1				-0301
NA01-32-090B	1	(W/O P.S.+W/AIR BAG)			0301-
NA02-32-090B	1	(W/P.S.+W/AIR BAG)			0301-
NA07-32-090A	1	(W/O P.S.+W/O AIR BAG)			0701-
NA08-32-090A	1	(W/P.S.+W/O AIR BAG)			0701-
32-099		BOLT,SHAFT			
B455-32-099	3				
32-100		SHAFT,ENGY.ABSORBER			
NA01-32-100B	1	(W/AIR BAG)			
NA07-32-100A	1	(W/O AIR BAG)			0701-
32-217		GROMMET			
NA01-32-217	1				
32-850		JOINT,STEERING			
NA01-32-850	1				

9410 NA35**-100262
0301 NA35**-141901
0701 NA35**-200041

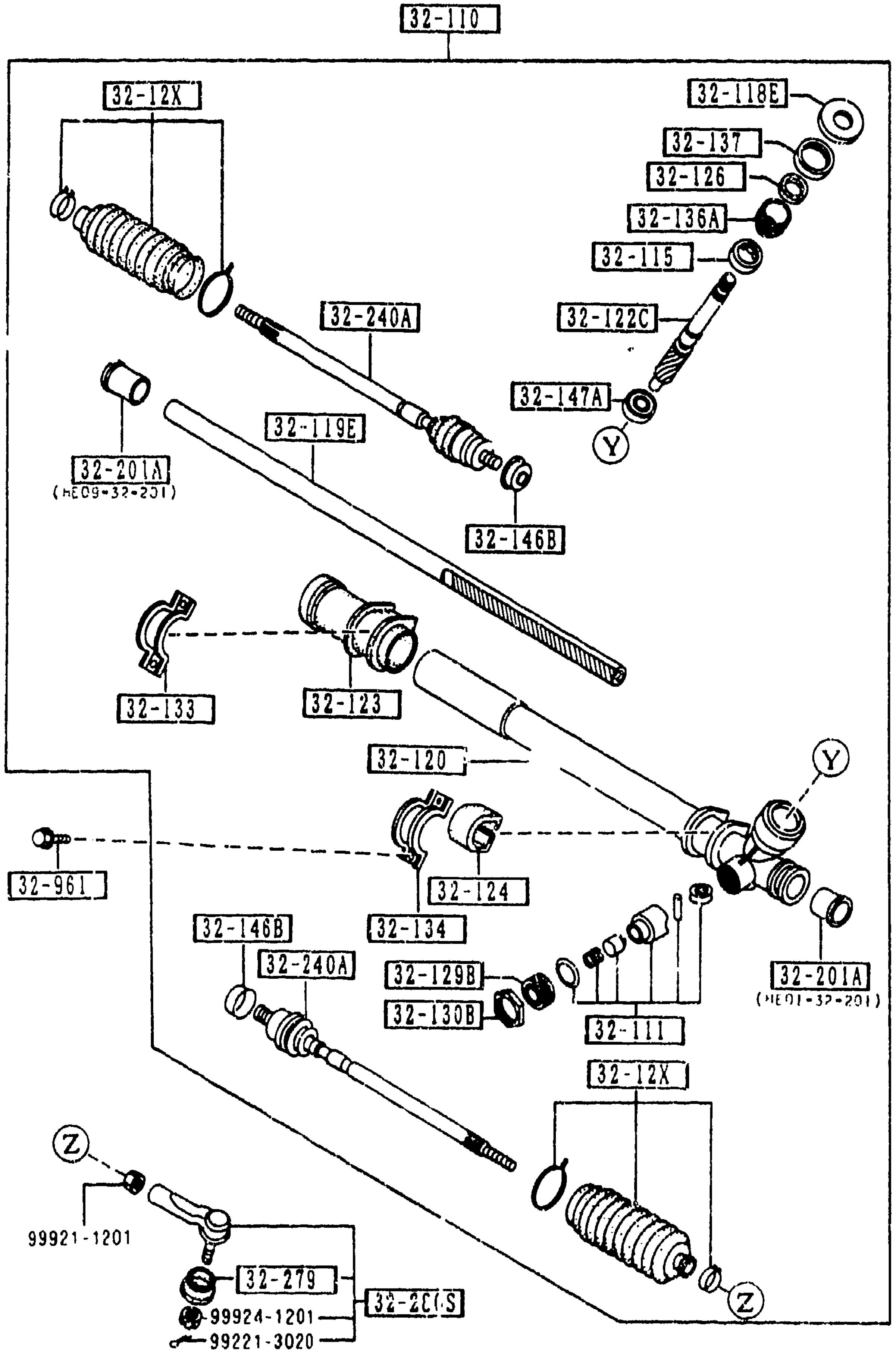
3220 STEERING GEAR (W/O POWER STEERING)


32-110
32-12X
32-118E
32-137
32-126
32-136A
32-115
32-240A
32-122C
32-147A
Y
32-119E
32-201A
(HE03-32-201)
32-146B
32-133
32-123
32-120
Y
32-961
32-124
32-134
32-146B
32-240A
32-129B
32-130B
32-111
32-201A
(HE01-32-201)
32-12X
Z
99921-1201
32-279
32-280S
99924-1201
99221-3020
Z

3220 -1 STEERING GEAR (W/O POWER STEERING)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-110 NA01-32-110	1	GEAR, STEERING			
32-111 GJ21-32-111	1	YOKE, SUPPORT			
32-115 G030-32-115	1	BEARING, ST. GEAR			
32-118E NA01-32-118	1	COVER, DUST·ST. GEAR			
32-119E NA01-32-119	1	RACK, STEERING GEAR			
32-12X NA01-32-12X	2	BOOT SET, ST. GEAR			
32-120 NA01-32-120	1	HOUSING, GEAR			
32-122C NA01-32-122	1	PINION, STEERING GEAR			
32-123 NA01-32-123	1	RUBBER, MOUNTING			
32-124 NA01-32-124	1	RUBBER, MOUNTING			
32-126 G030-32-126	1	SEAL, SHAFT			
32-129B HE01-32-129	1	PLUG, PINION			
32-130B S083-32-137	1	NUT, LOCK			
32-133 BC51-32-133	1	PLATE, CLAMP			

3220 STEERING GEAR (W/O POWER STEERING)



32-110
32-12X
32-118E
32-137
32-126
32-136A
32-115
32-122C
32-240A
32-147A
Y
32-201A
(HE09-32-201)
32-119E
32-146B
32-133
32-123
32-120
Y
32-961
32-124
32-134
32-146B
32-240A
32-129B
32-130B
32-111
32-201A
(HE01-32-201)
32-12X
Z
99921-1201
32-279
32-280S
99924-1201
99221-3020
Z

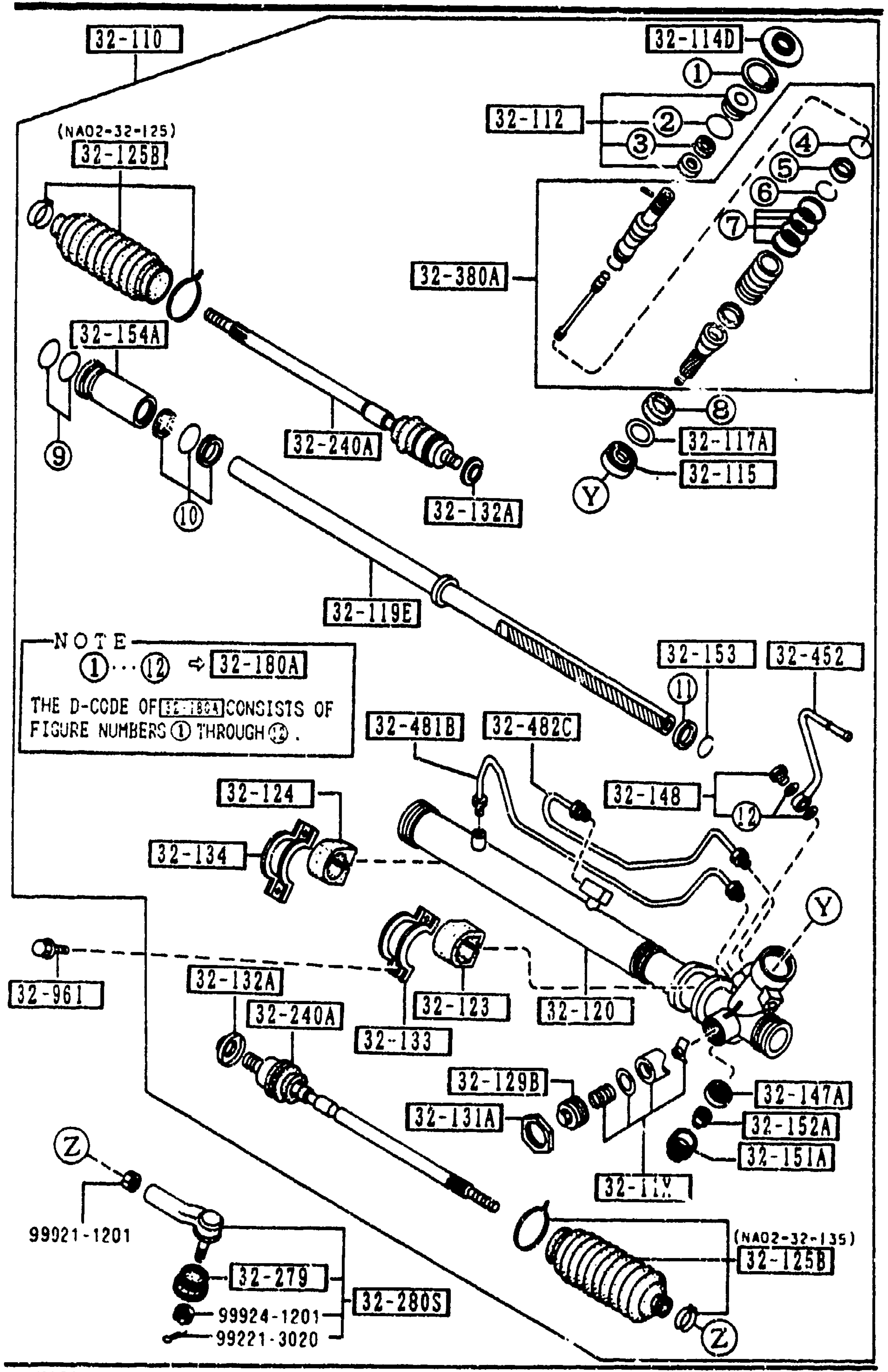
3220 -2 * STEERING GEAR (W/O POWER STEERING)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-134		PLATE, CLAMP			
NA01-32-134	1				
32-136A		COVER, REAR			
G030-32-136	1				
32-137		NUT, LOCK			
S030-32-137	1				
32-146B		WASHER			
HA14-32-146	2				
32-147A		BEARING, PINION			
G030-32-147	1				
32-201A		BUSHING, RACK-ST. GEAR			
HE01-32-201	1				
HE09-32-201	1				
32-240A		JOINT, BALL			
NA01-32-240	2				
32-279		SEAL, DUST-BALL JOINT			
B455-32-279	2				
32-280S		JOINT SET, BALL			
BAN1-32-280	2				
32-961		BOLT			
G030-32-961	4				

SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM			
1-D11	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM (AT)			
1-F11	2610	REAR BRAKE MECHANISMS						
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-D12	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-I12	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-I13	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-C14	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-D15	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMISSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-I15	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						

3220 A STEERING GEAR
(W/ POWER STEERING)

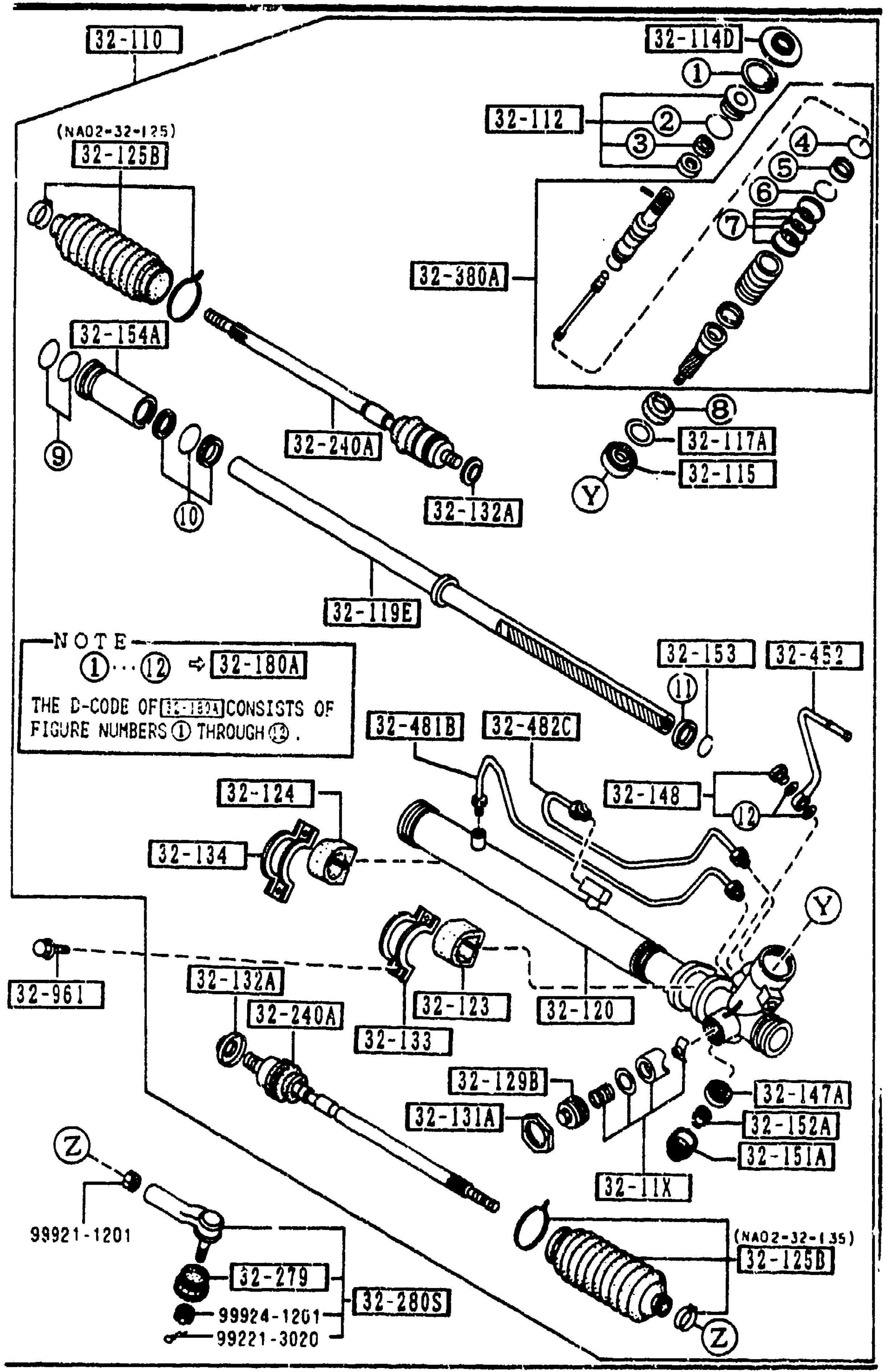

32-110
32-114D
①
32-112
②
③
④
⑤
⑥
⑦
(NA02-32-125)
32-125B
32-380A
32-154A
⑨
32-240A
⑧
32-117A
32-115
Ⓨ
⑩
32-132A
32-119E
32-153
32-452
⑪
32-481B
32-482C
32-148
⑫
32-124
32-134
Ⓨ
32-961
32-132A
32-240A
32-123
32-120
32-133
32-129B
32-131A
32-147A
32-152A
32-151A
32-11X
Ⓩ
99921-1201
(NA02-32-135)
32-125B
32-279
32-280S
99924-1201
99221-3020
Ⓩ

NOTE
①···⑫ ⇨ 32-180A
THE D-CODE OF 32-180A CONSISTS OF FIGURE NUMBERS ① THROUGH ⑫.

3220 A-1 STEERING GEAR
(W/ POWER STEERING)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-11X NA02-32-11X	1	YOKE SET,SUPPORT-ST. GEAR			
32-110 NA02-32-110	1	GEAR,STEERING			
32-112 NA02-32-112	1	COVER,DUST			
32-114D NA02-32-114	1	COVER,DUST-ST. GEAR			
32-115 NA02-32-115	1	BEARING,ST. GEAR			
32-117A NA02-32-121	1	SPACER,STEERING GEAR			
32-119E NA02-32-119	1	RACK,STEERING GEAR			
32-120 NA02-32-120	1	HOUSING,GEAR			
32-123 NA02-32-123	1	RUBBER,MOUNTING			
32-124 NA02-32-124	1	RUBBER,MOUNTING			
32-125B		BOOT,RACK			
NA02-32-125	1	(FOR RIGHT)			
NA02-32-135	1	(FOR LEFT)			
32-129B NA02-32-129	1	PLUG,PINION			
32-131A NA02-32-131	1	NUT,LOCK-RACK			

3220 A STEERING GEAR
(W/ POWER STEERING)

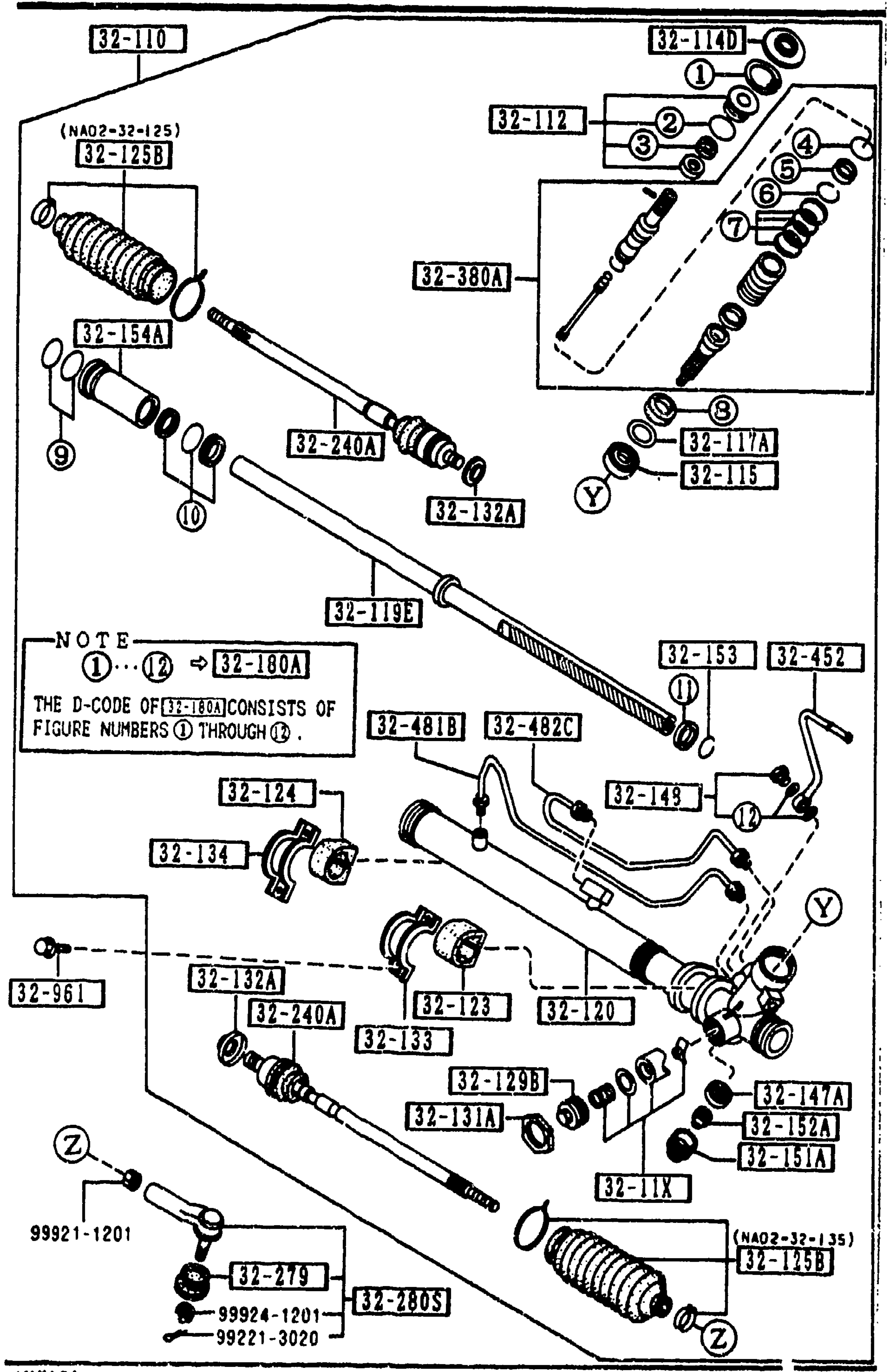

32-110
32-114D
①
32-112
②
③
(NA02-32-125)
32-125B
④
⑤
⑥
⑦
32-380A
32-154A
32-240A
⑧
32-117A
32-115
⑨
⑩
32-132A
Y
32-119E
32-153
32-452
⑪
32-481B
32-482C
32-148
⑫
32-124
32-134
Y
32-961
32-132A
32-240A
32-123
32-120
32-133
32-129B
32-147A
32-131A
32-152A
32-151A
32-11X
Z
99921-1201
(NA02-32-135)
32-125D
32-279
32-280S
99924-1201
99221-3020
Z

NOTE
①…⑫ ⇨ 32-180A
THE D-CODE OF 32-180A CONSISTS OF FIGURE NUMBERS ① THROUGH ⑫ .

3220 A-2 STEERING GEAR
(W/ POWER STEERING)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-132A NA02-32-126	2	WASHER			
32-133 NA02-32-133	1	PLATE,CLAMP			
32-134 NA02-32-134	1	PLATE,CLAMP			
32-147A NA02-32-147	1	BEARING,PINION			
32-148 D002-32-148	1	EYE BOLT KIT,ST. GEAR			
32-151A NA02-32-151	1	PLUG,PINION-ST.GEAR			
32-152A NA02-32-152	1	NUT,ADJUST			
32-153 NA02-32-153	1	RING,BACK UP			
32-154A NA02-32-154	1	HOLDER,STEERING GEAR			
32-180A NA02-32-180	1	SEAL KIT,ST. GEAR			
32-240A NA02-32-240	2	JOINT,BALL			
32-279 B455-32-279	2	SEAL,DUST-BALL JOINT			
32-280S 8AN1-32-280	2	JOINT SET,BALL			
32-380A NA02-32-380	1	VALVE,ST. GEAR			

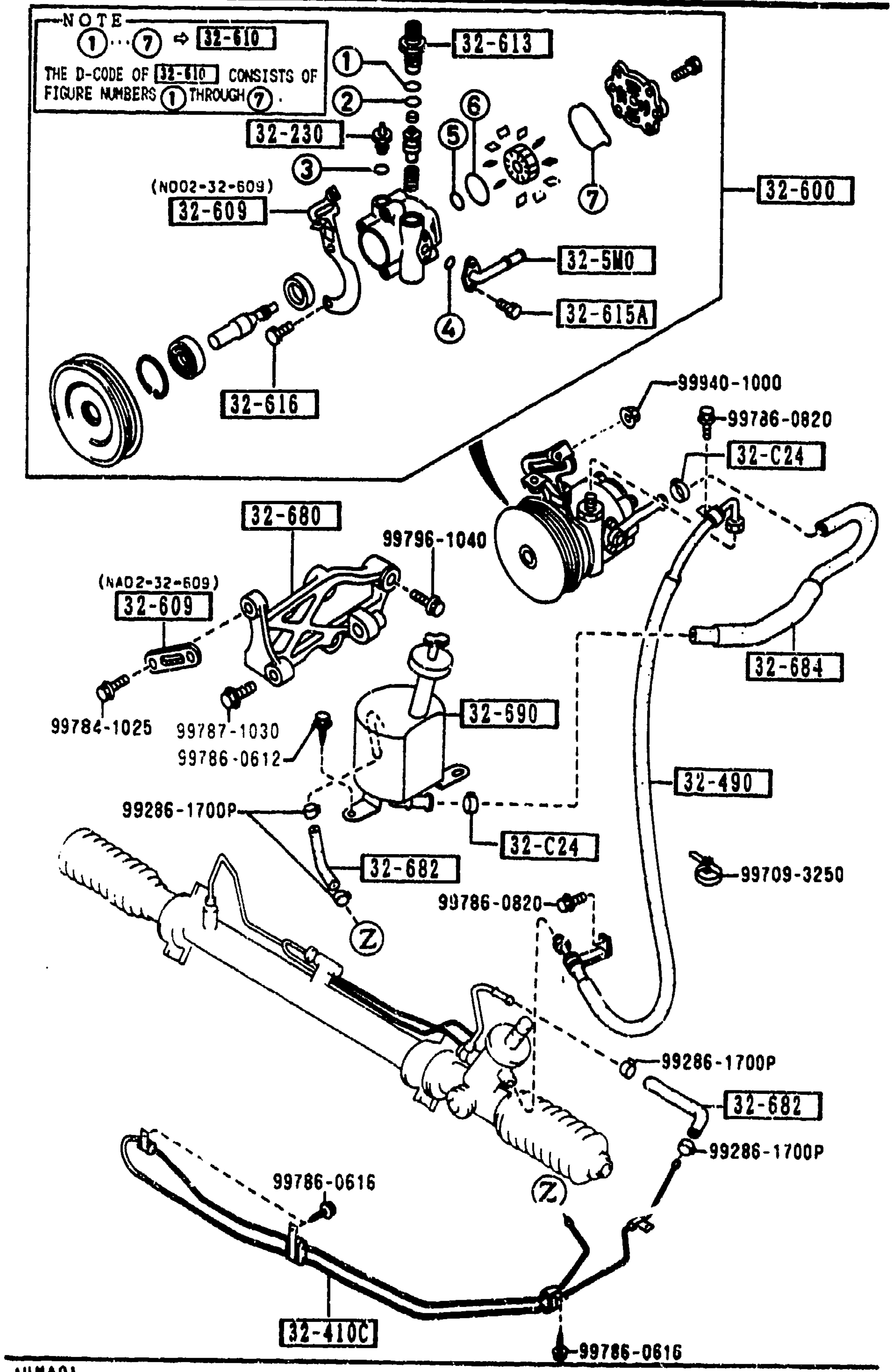
3220 A STEERING GEAR (W/ POWER STEERING)


32-110
32-114D
①
32-112
②
③
④
⑤
⑥
⑦
(NA02-32-125)
32-125B
32-380A
32-154A
⑨
⑩
32-240A
32-132A
⑧
32-117A
32-115
Y
32-119E
NOTE
①…⑫ ⇨ 32-180A
THE D-CODE OF 32-180A CONSISTS OF FIGURE NUMBERS ① THROUGH ⑫ .
32-153
⑪
32-452
32-481B
32-482C
32-149
⑫
32-124
32-134
Y
32-961
32-132A
32-240A
32-123
32-133
32-120
32-129B
32-131A
32-11X
32-147A
32-152A
32-151A
Z
99921-1201
32-279
32-280S
99924-1201
99221-3020
(NA02-32-135)
32-125B
Z

3220 A-3 * STEERING GEAR (W/ POWER STEERING)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-452 NA02-32-452	1	PIPE'B',ST. GEAR			
32-481B NA02-32-481	1	PIPE'A',CYLINDER			
32-482C NA02-32-482	1	PIPE'B',CYLINDER			
32-961 G030-32-961	4	BOLT			

3240 POWER STEERING SYSTEM

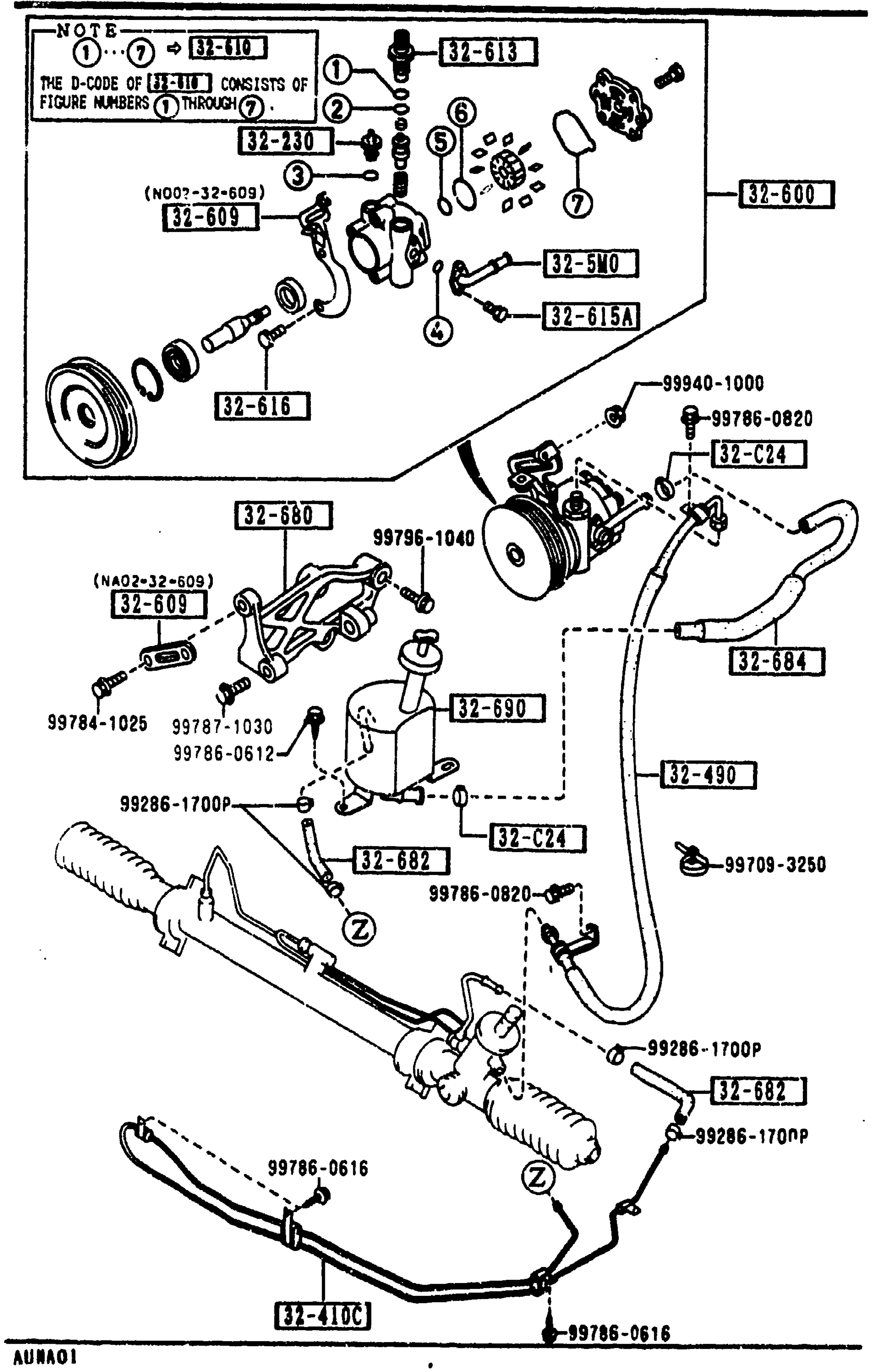

NOTE
①···⑦ ⇨ 32-610
THE D-CODE OF 32-610 CONSISTS OF FIGURE NUMBERS ① THROUGH ⑦.
32-613
①
②
32-230
③
⑤
⑥
⑦
(N002-32-609)
32-609
32-600
32-5M0
32-615A
④
32-616
99940-1000
99786-0820
32-C24
32-680
99796-1040
(NA02-32-609)
32-609
32-684
99784-1025
99787-1030
99786-0612
32-690
32-490
99286-1700P
32-C24
32-682
99709-3250
Z
99786-0820
99286-1700P
32-682
99286-1700P
99786-0616
Z
32-410C
99786-0616

3240 -1 POWER STEERING SYSTEM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-C24		CLAMP,HOSE-P.S.			
0238-32-C24	2				
32-230		SWITCH,PRESSURE-P.S.			
B456-32-230	1				
32-410C		PIPE,RETURN			
NA02-32-410 AN(NA02-32-410A)	1				-0508
NA02-32-410A	1				0508-
32-490		HOSE,PRESSURE			
NA02-32-490A A (NA02-32-490B)	1				-0201
NA02-32-490B	1				0201-
32-5M0		PIPE,SUCTION			
N002-32-5M0	1				
32-600		PUMP,VANE			
N002-32-600A AN(N002-32-600B)	1				-0301
N002-32-600B	1				0301-
32-609		BRACKET,VANE PUMP			
NA02-32-609	1	KUROISHI TEKKO			
N002-32-609	1	NIHON POWER STEERING			
32-610		SEAL KIT,VANE PUMP			
N002-32-610	1				
32-613		NIPPLE,VANE PUMP			
N002-32-613	1				
32-615A		BOLT			
B456-32-615	2				
32-616		BOLT,VANE PUMP			
B456-32-616	2				

0201 NA35**-137180
0301 NA35**-141901
0508 NA35**-150838

3240 POWER STEERING SYSTEM


NOTE ①…⑦ ⇒ 32-610

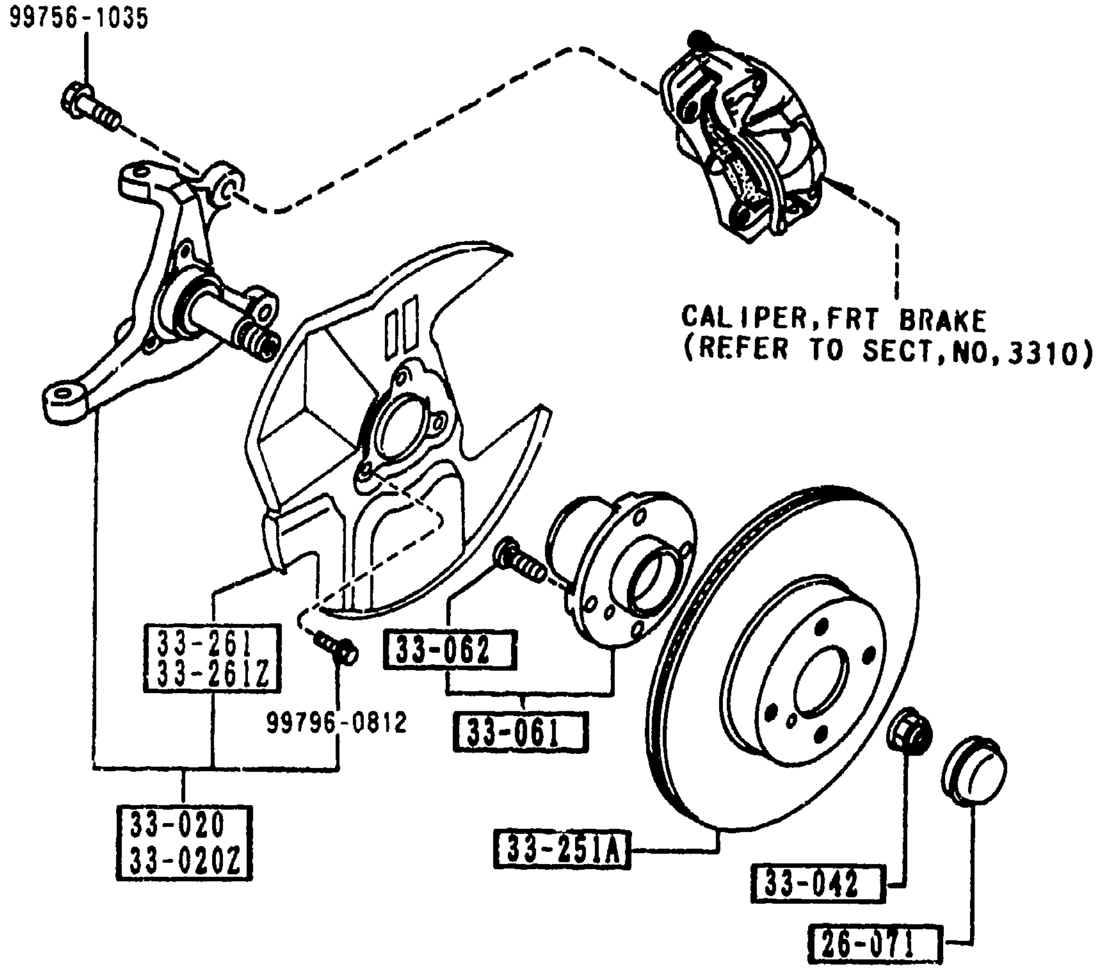
THE D-CODE OF 32-610 CONSISTS OF FIGURE NUMBERS ① THROUGH ⑦.

32-613
①
②
32-230
③
⑤
⑥
⑦
32-600
(N002-32-609)
32-609
32-5M0
④
32-615A
32-616
99940-1000
99786-0820
32-C24
32-680
99796-1040
(NA02-32-609)
32-609
32-684
99784-1025
99787-1030
99786-0612
32-690
32-490
99286-1700P
32-C24
32-682
99709-3250
Ⓩ
99786-0820
99286-1700P
32-682
99286-1700P
99786-0616
Ⓩ
32-410C
99786-0616

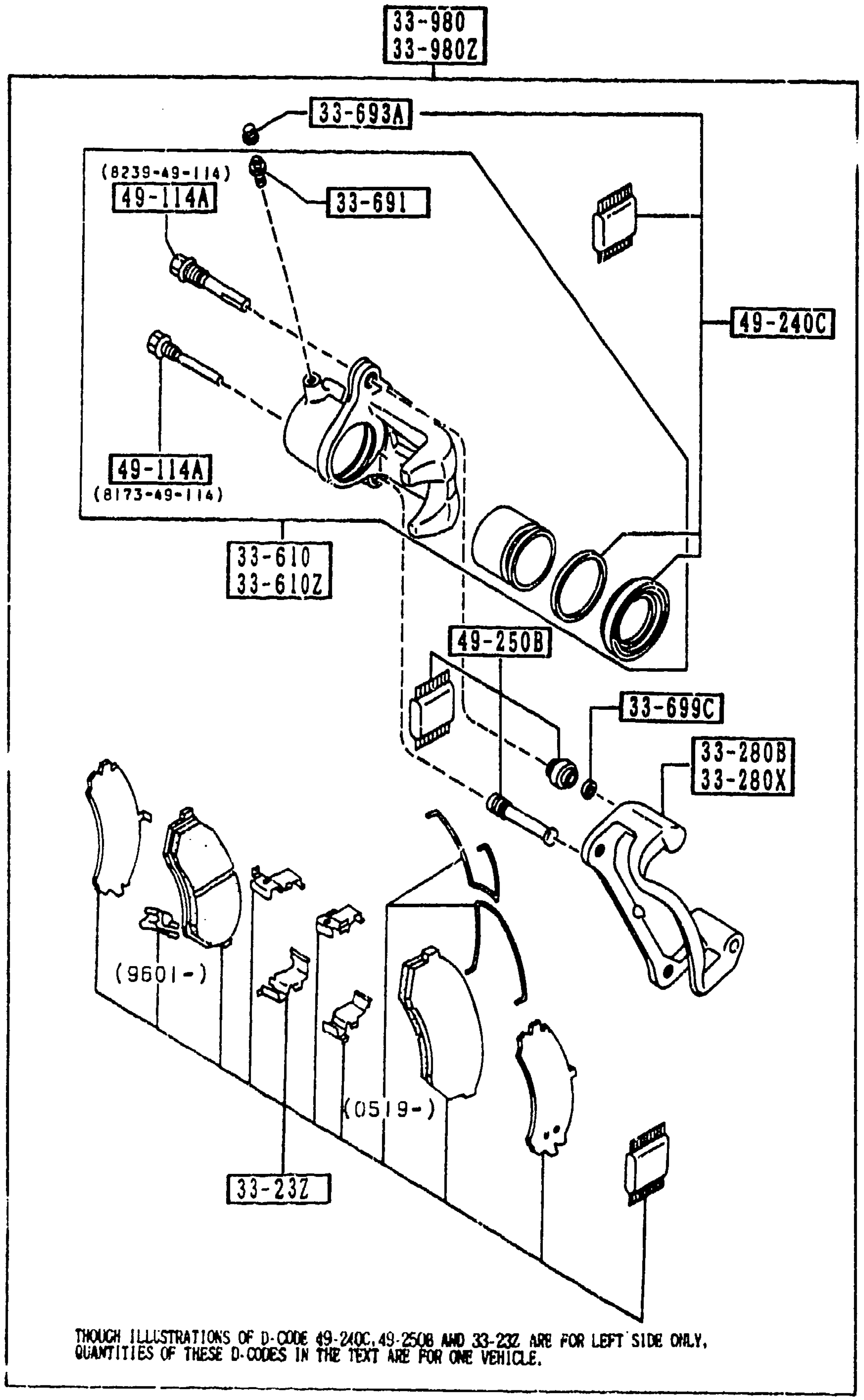
3240 -2 * POWER STEERING SYSTEM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-680		BRACKET,VANE PUMP			
NA02-32-680	1				
32-682		HOSE,RETURN			
NA02-32-682	2				
32-684		HOSE,RETURN			
NA02-32-684B	1				
32-690		TANK,VANE PUMP			
NA02-32-690 A (NA02-32-690A)	1				-9B20
NA02-32-690A	1				9B20-

9B20 NA35**-128848


99756-1035
CALIPER,FRT BRAKE
(REFER TO SECT,NO,3310)
33-261
33-261Z
33-062
99796-0812
33-061
33-020
33-020Z
33-251A
33-042
26-071

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
26-071		CAP,HUB			
B455-26-071	2				
33-020		KNUCKLE(R),STEERING			
NA01-33-020A	1				
33-020Z		KNUCKLE(L),STEERING			
NA01-33-030A	1				
33-042		NUT			
NA01-33-042A	2	W/WASHER			
33-061		HUB,WHEEL			
NA01-33-04X	2				
33-062		BOLT,HUB			
B455-33-062	8				
33-251A		PLATE,DISC			
NA01-33-25X	2				
33-261		COVER(R),DUST			
NA01-33-261	1				
33-261Z		COVER(L),DUST			
NA01-33-271	1				


33-980
33-980Z
33-693A
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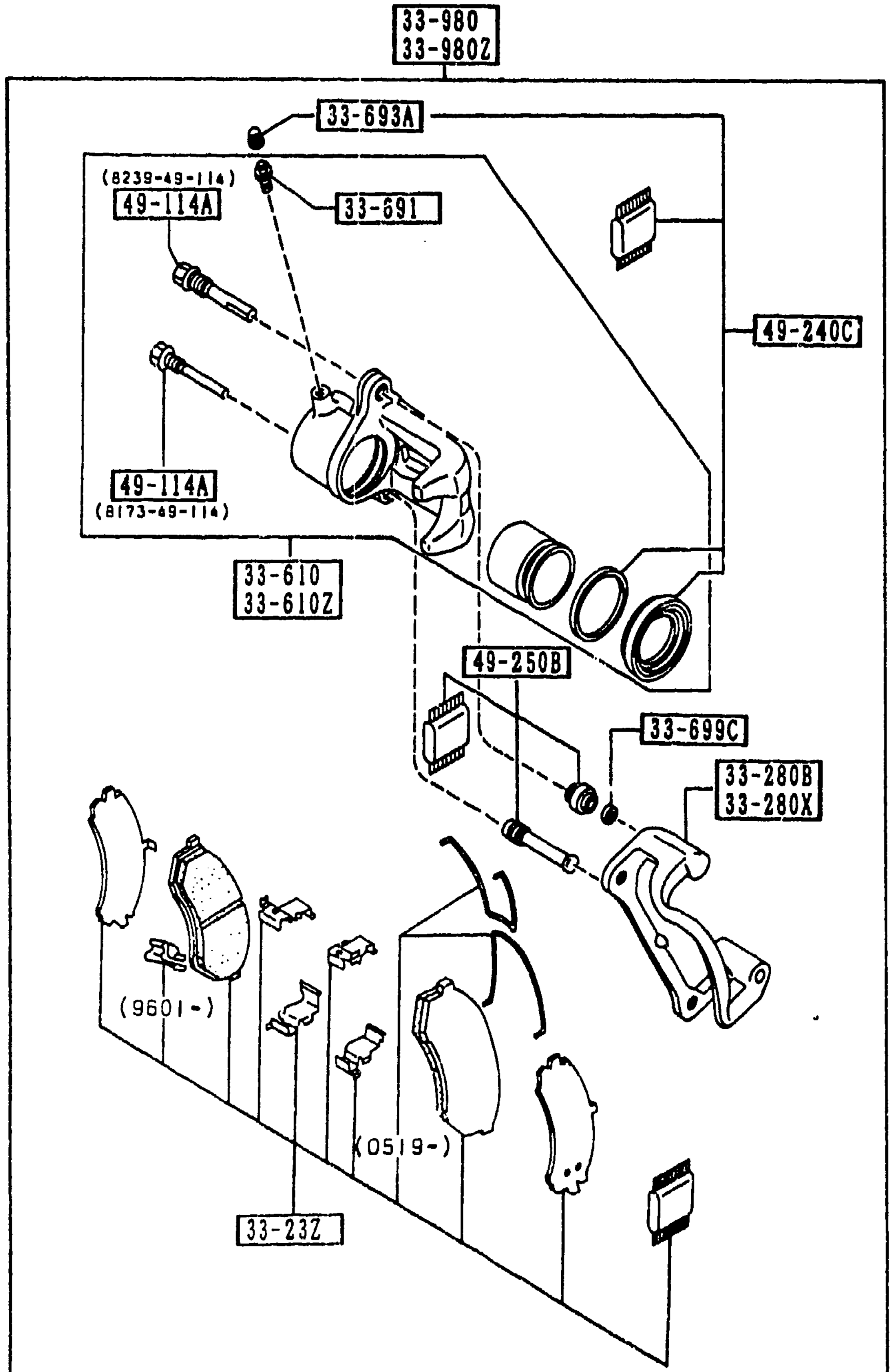
49-114A
33-691
49-240C
49-114A
(8173-49-114)
33-610
33-610Z
49-250B
33-699C
33-280B
33-280X
(9601-)
(0519-)
33-23Z

THOUGH ILLUSTRATIONS OF D-CODE 49-240C,49-250B AND 33-23Z ARE FOR LEFT SIDE ONLY, QUANTITIES OF THESE D-CODES IN THE TEXT ARE FOR ONE VEHICLE.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
33-23Z		PAD SET,FRT CALIPER			
NAY1-33-23Z A (NAY1-33-23ZA)	1				-9601
NAY1-33-23ZA	1				9601-0519
NAY0-33-23ZA	1	NON ASBESTOS			0519-
33-280B		SUPPORT(R),MOUNTING			
NA01-33-281	1				
33-280X		SUPPORT(L),MOUNTING			
NA01-33-291	1				
33-610		BODY & PISTON(R),CALIPER			
NA01-33-61X	1				
33-610Z		BODY & PISTON(L),CALIPER			
NA01-33-71X	1				
33-691		SCREW,BLEEDER			
B001-33-691	2				
33-693A		CAP,BLEEDER SCREW			
0259-33-693	2				
33-699C		PIN,LOCK			
NA01-33-699	2				-9615
33-980		CALIPER(R),FRT BRAKE			
*NA01-33-980 A (NA01-33-980A)	1				-0519
*NA01-33-980A	1				0519-
33-980Z		CALIPER(L),FRT BRAKE			
*NA01-33-990 A (NA01-33-990A)	1				-0519
*NA01-33-990A	1				0519-
49-114A		PIN,SLIDER			
8173-49-114	2				
8239-49-114	2				

9601 NA35**-106797
9615 NA35**-109485
0519 NA35**-152765

3310 FRONT BRAKE MECHANISMS


33-980
33-980Z
33-693A
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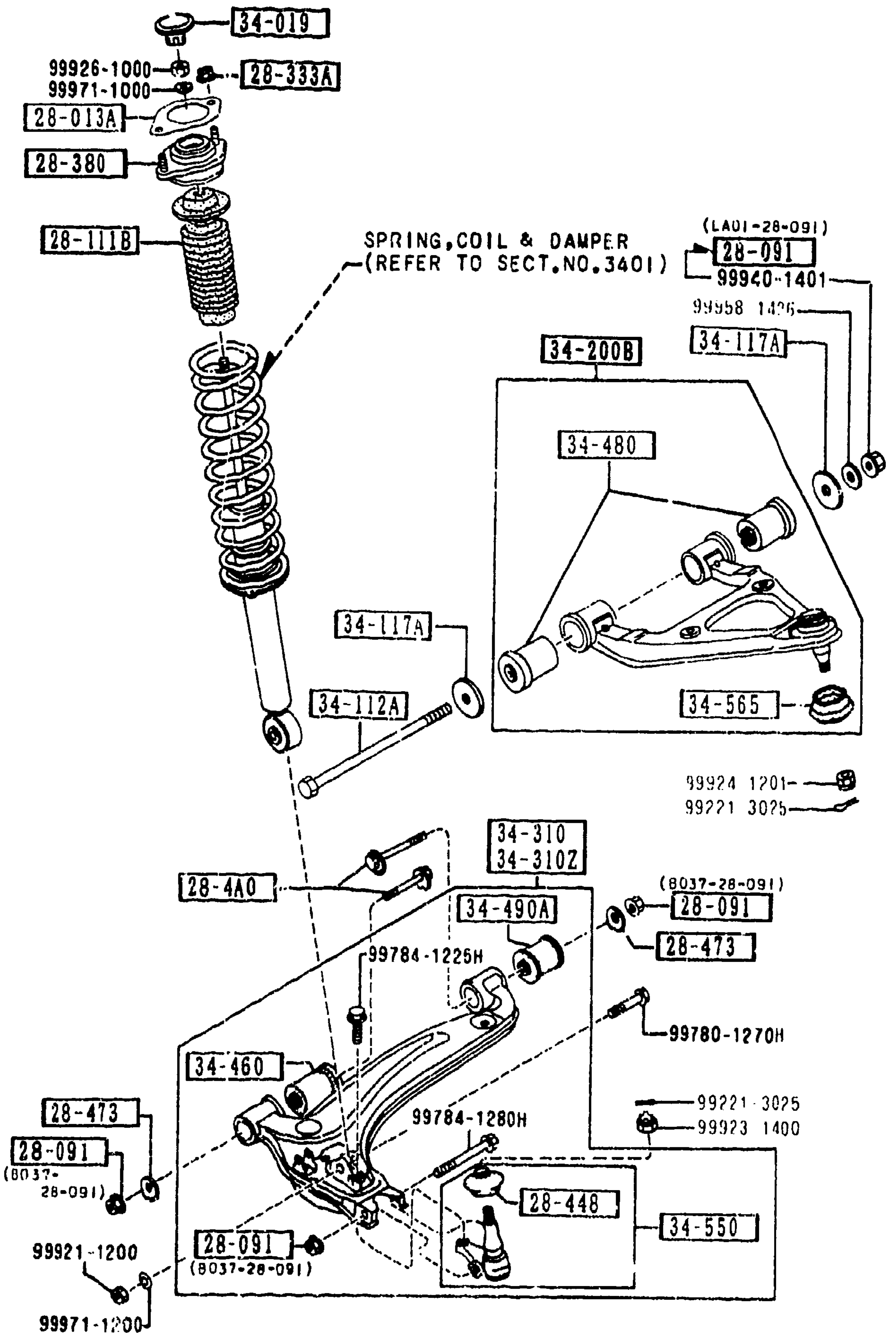
49-114A
33-691
49-240C
49-114A
(8173-49-114)
33-610
33-610Z
49-250B
33-699C
33-280B
33-280X
(9601-)
(0519-)
33-23Z

THOUGH ILLUSTRATIONS OF D-CODE 49-240C,49-250B AND 33-23Z ARE FOR LEFT SIDE ONLY.
QUANTITIES OF THESE D-CODES IN THE TEXT ARE FOR ONE VEHICLE.

3310 -2 * FRONT BRAKE MECHANISMS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
49-240C		SEAL KIT,CALIPER-FRT			
NAY1-33-24Z	1				
49-250B		BOOT KIT,FRT CALIPER			
NAY1-33-25Z	1				

3400 FRONT SUSPENSION MECHANISMS

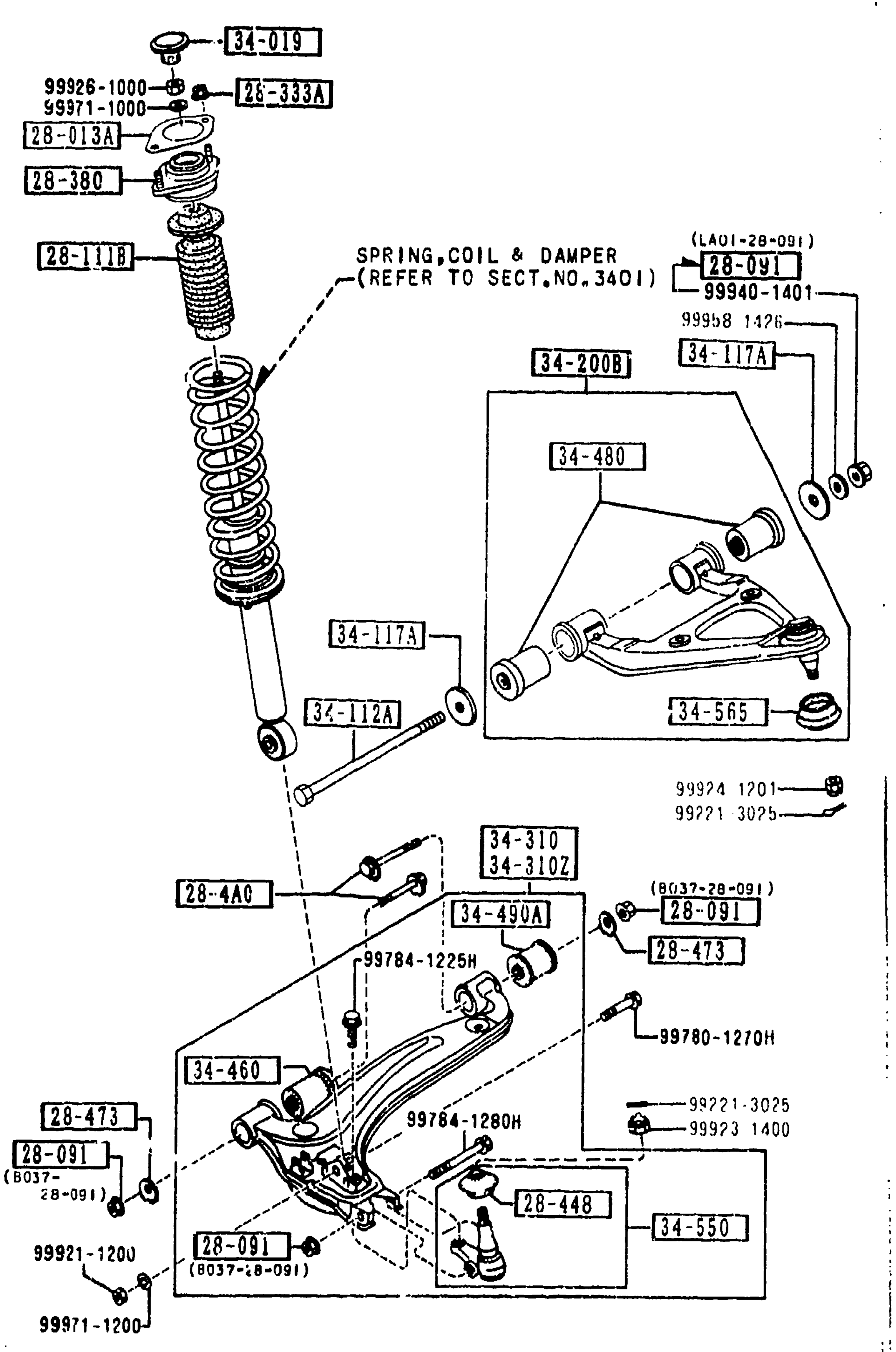

34-019
99926-1000
99971-1000
28-333A
28-013A
28-380
28-111B
SPRING,COIL & DAMPER
(REFER TO SECT.NO.3401)
(LA01-28-091)
28-091
99940-1401
99958 1426
34-117A
34-200B
34-480
34-117A
34-112A
34-565
99924 1201
99221 3025
34-310
34-310Z
28-4A0
34-490A
(B037-28-091)
28-091
28-473
99784-1225H
99780-1270H
34-460
28-473
28-091
(B037-
28-091)
99784-1280H
99221 3025
99923 1400
28-448
34-550
28-091
(B037-28-091)
99921-1200
99971-1200

3400 -1 FRONT SUSPENSION MECHANISMS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
28-013A		SHEET,RUBBER			
G030-28-013A	2				9411-
28-091		NUT			
B037-28-091	6				
LA01-28-091	2				9405-
28-111B		STOPPER,BUMP			
NA01-28-111	2				
28-333A		NUT,FLANGE			
H001-28-333	4				
28-380		RUBBER,MOUNTING			
NA01-28-380A	2				
28-4A0		BOLT,ADJUST			
NA01-28-4A0	4				
28-448		SEAL,DUST-BALL JOINT			
H266-28-448	2				
28-473		PLATE,CAM-SUB FRAME			
NA01-28-473	4				
34-019		CAP,DAMPER			
NA01-34-019	2				
34-112A		BOLT			
NA01-34-112	2				
34-117A		WASHER			
NA01-34-117A	4				
34-200B		ARM,UPPER-FRT			
NA01-34-200 A (NA01-34-200A)	2				-9511
NA01-34-200A	2				9511-
34-310		ARM(R),LOWER			
NA01-34-300A	1				

9405 NA35**-100118
9411 NA35**-100333
9511 NA35**-103176

3400 FRONT SUSPENSION MECHANISMS

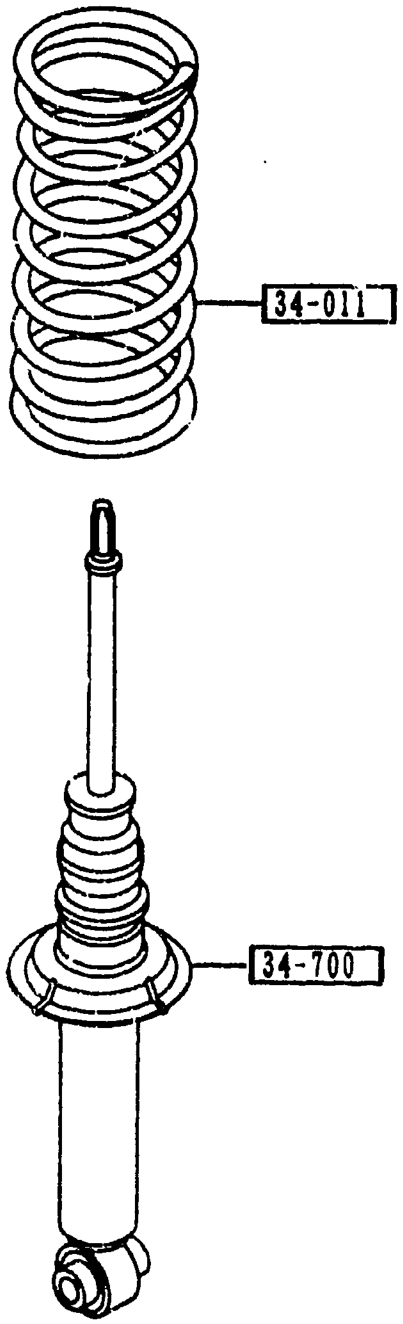

34-019
99926-1000
99971-1000
28-333A
28-013A
28-380
28-111B
SPRING,COIL & DAMPER
(REFER TO SECT.NO.3401)
(LA01-28-091)
28-091
99940-1401
99958 1426
34-117A
34-200B
34-480
34-117A
34-112A
34-565
99924 1201
99221 3025
34-310
34-310Z
28-4A0
(B037-28-091)
28-091
34-490A
28-473
99784-1225H
99780-1270H
34-460
28-473
28-091
(B037-28-091)
99784-1280H
99221-3025
99923 1400
28-448
34-550
28-091
(B037-28-091)
99921-1200
99971-1200

3400 -2 * FRONT SUSPENSION MECHANISMS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
34-310Z		ARM(L),LOWER			
NA01-34-350A	1				
34-460		BUSH,RUBBER-LWR ARM			
NA01-34-460A	2				
34-480		BUSHING,RUBBER-LOWER ARM			
NA01-34-480	4				-9511
NA01-34-480A	4				9511-
34-490A		BUSHING,RUBBER			
NA01-34-490	2				
34-550		BALL JOINT,LOWER			
NA01-34-550	2				
34-565		SEAL,DUST			
NA01-34-548	2				

9511 NA35**-103176

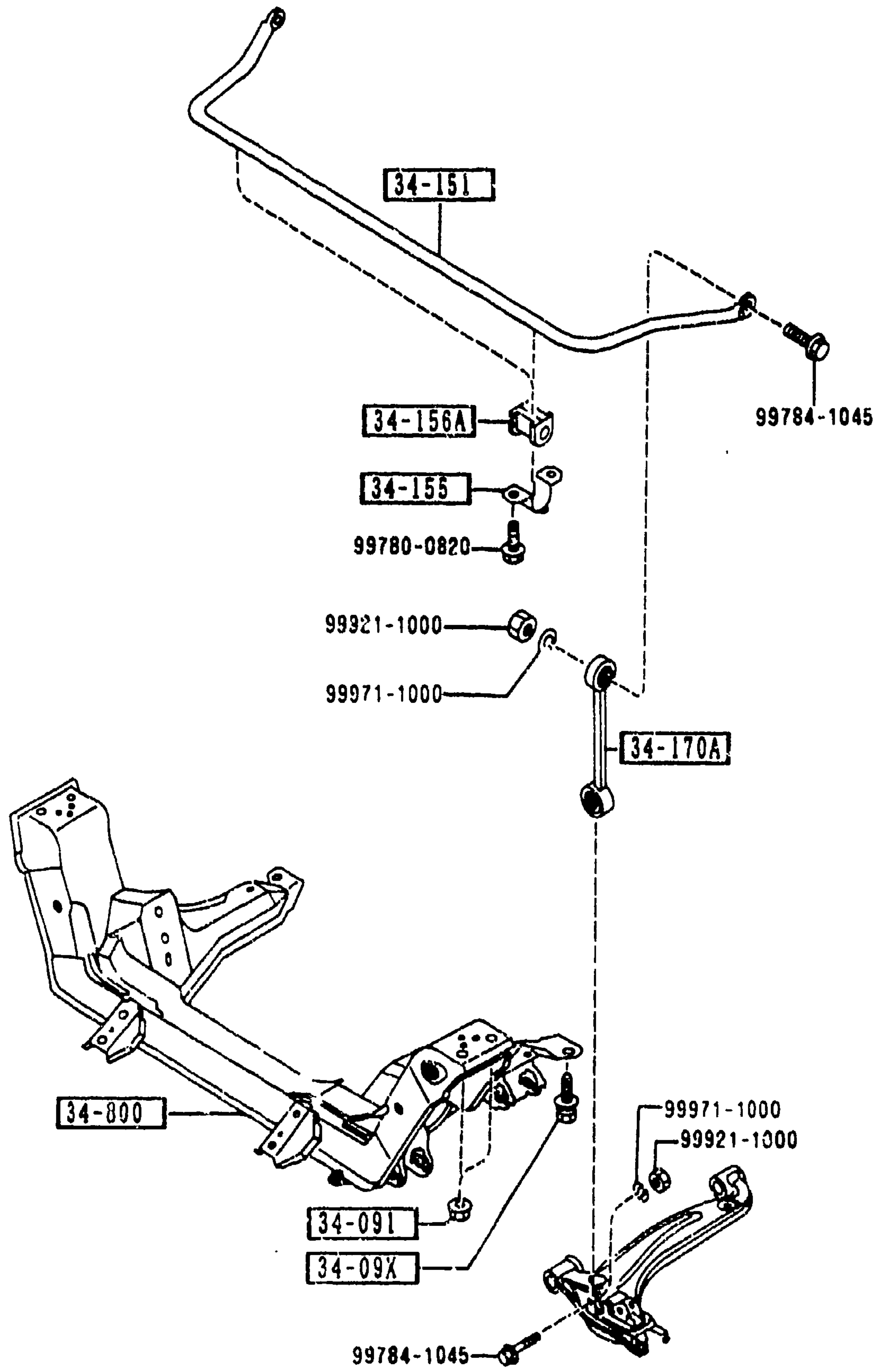
3401 FRONT SPRING & DAMPER



3401 -1 * FRONT SPRING & DAMPER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
34-011		SPRING,COIL-FRONT			
NA01-34-011A	2	(MT)			
NA03-34-011	2	(AT)			
34-700		DAMPER,FRONT			
NA01-34-700	2				

3410 CROSSMEMBER & STABILIZER


34-151
34-156A
99784-1045
34-155
99780-0820
99921-1000
99971-1000
34-170A
34-800
99971-1000
99921-1000
34-091
34-09X
99784-1045

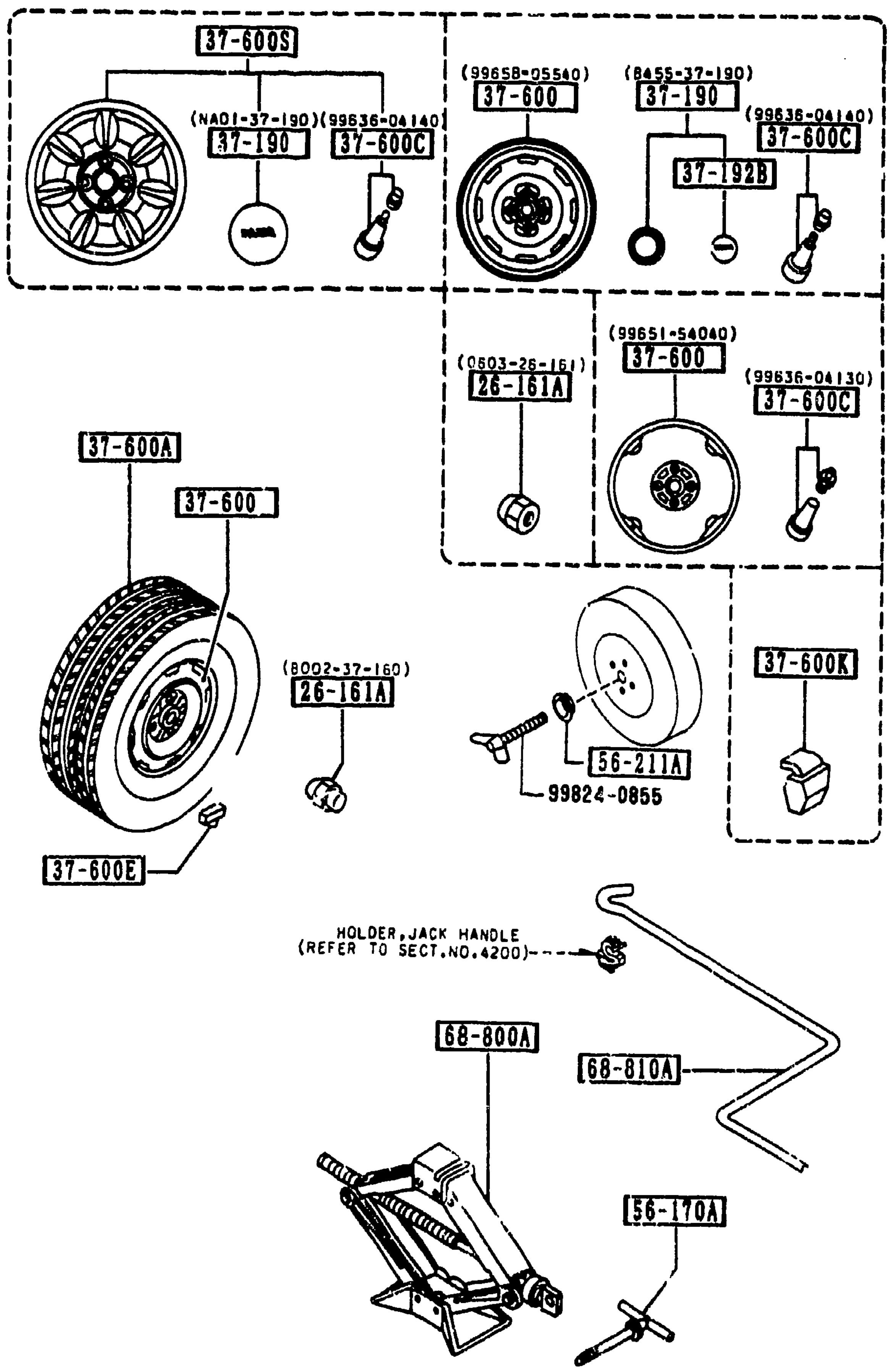
3410 -1 * CROSSMEMBER & STABILIZER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
34-09X		BOLT			
NA01-34-09XA	4				
34-091		NUT			
FB01-34-091	4				
34-151		STABILIZER,FRONT			
NA01-34-151A	1				
34-155		PLATE,STABILIZER			
FB01-34-155	2				
34-156A		RUBBER,STAB -FRT			
NA01-34-156A	2				
34-170A		LINK,CONTROL-STAB			
NA01-34-170	2				
34-800		MEMBER,CROSS			
NA01-34-800 A (NA01-34-800A)	1				-9330
NA01-34-800A	1				9330-

9330 NA35**-100072

SECTION NAME INDEX (CHASSIS)

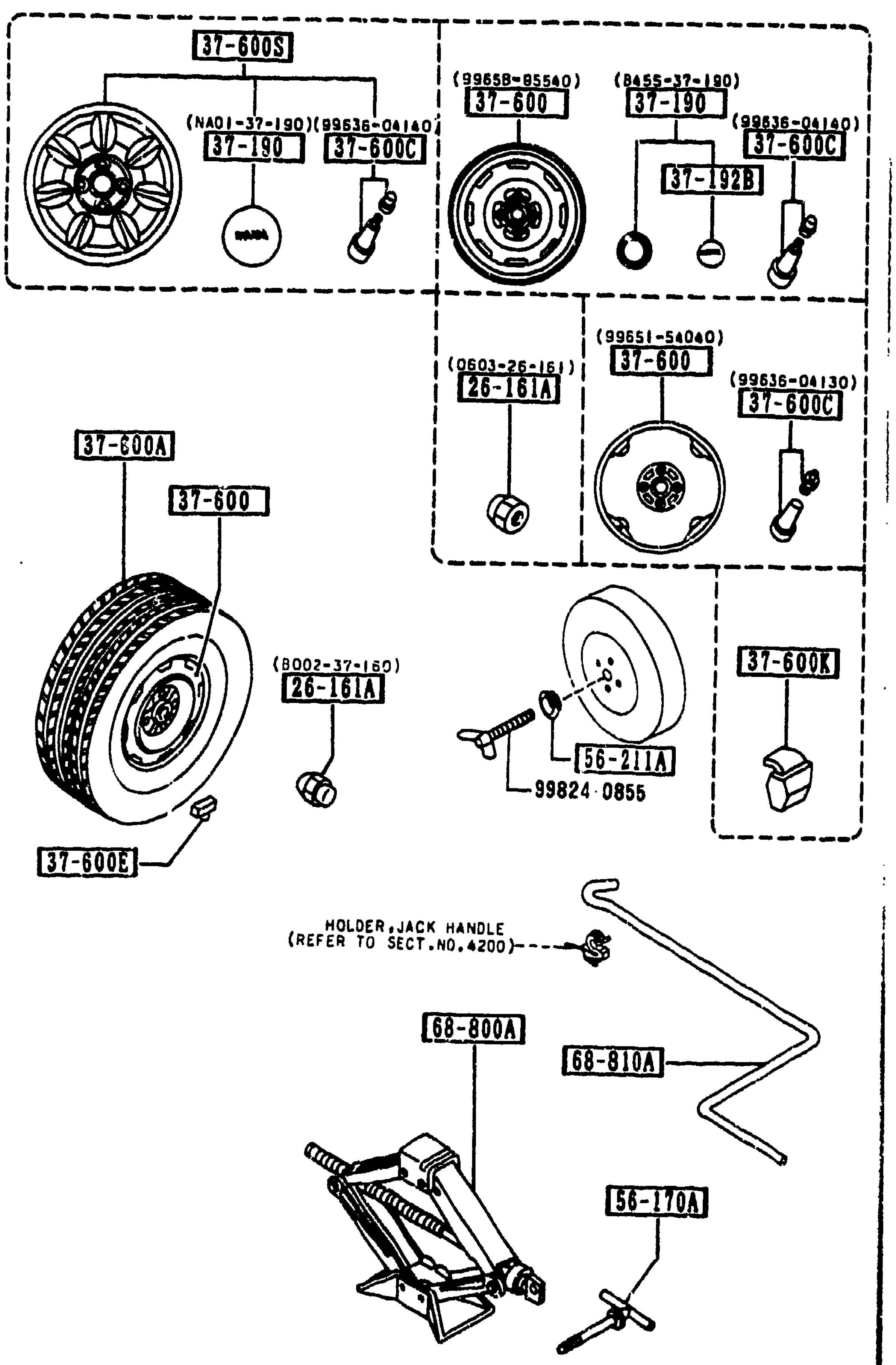
LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM			
1-D11	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM (AT)			
1-F11	2610	REAR BRAKE MECHANISMS						
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-D12	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-I12	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-I13	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-C14	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-D15	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMISSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-I15	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						


37-600S
(NA01-37-190)
37-190
(99636-04140)
37-600C
(99658-05540)
37-600
(8455-37-190)
37-190
37-192B
(99636-04140)
37-600C
(0603-26-161)
26-161A
(99651-54040)
37-600
(99636-04130)
37-600C
37-600A
37-600
(8002-37-160)
26-161A
56-211A
99824-0855
37-600K
37-600E
HOLDER,JACK HANDLE
(REFER TO SECT.NO.4200)
68-800A
68-810A
56-170A

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
26-161A		NUT,HUB			
0603-26-161	16	NON BRIGHT			
B002-37-160	16	PLATED			
37-190		CAP,CENTER			
B455-37-190	4				
NA01-37-190	4				
37-192B		EMBLEM,CENTER			
B001-37-192	4				
37-600		WHEEL,DISC STEEL			
99658-95540	4	5.5JJX14 P=100/O=45			
99651-54040	1	4TX14 P=100/O=45			
37-600A		TIRE			
90620-47614	1	T155/70D14			
90623-06684	4	P185/60R14			
90624-26684	4	P185/60R14			9A01-
37-600C		VALVE,AIR			
99636-04130	1	TR413			
99636-04140	4	TR414			
37-600E		WEIGHT,DISC WHEEL-STEEL			
99655-30005	4	5G			
99655-30010	4	10G			
99655-30015	4	15G			
99655-30020	4	20G			
99655-30025	4	25G			

9A01 NA35NN-122908

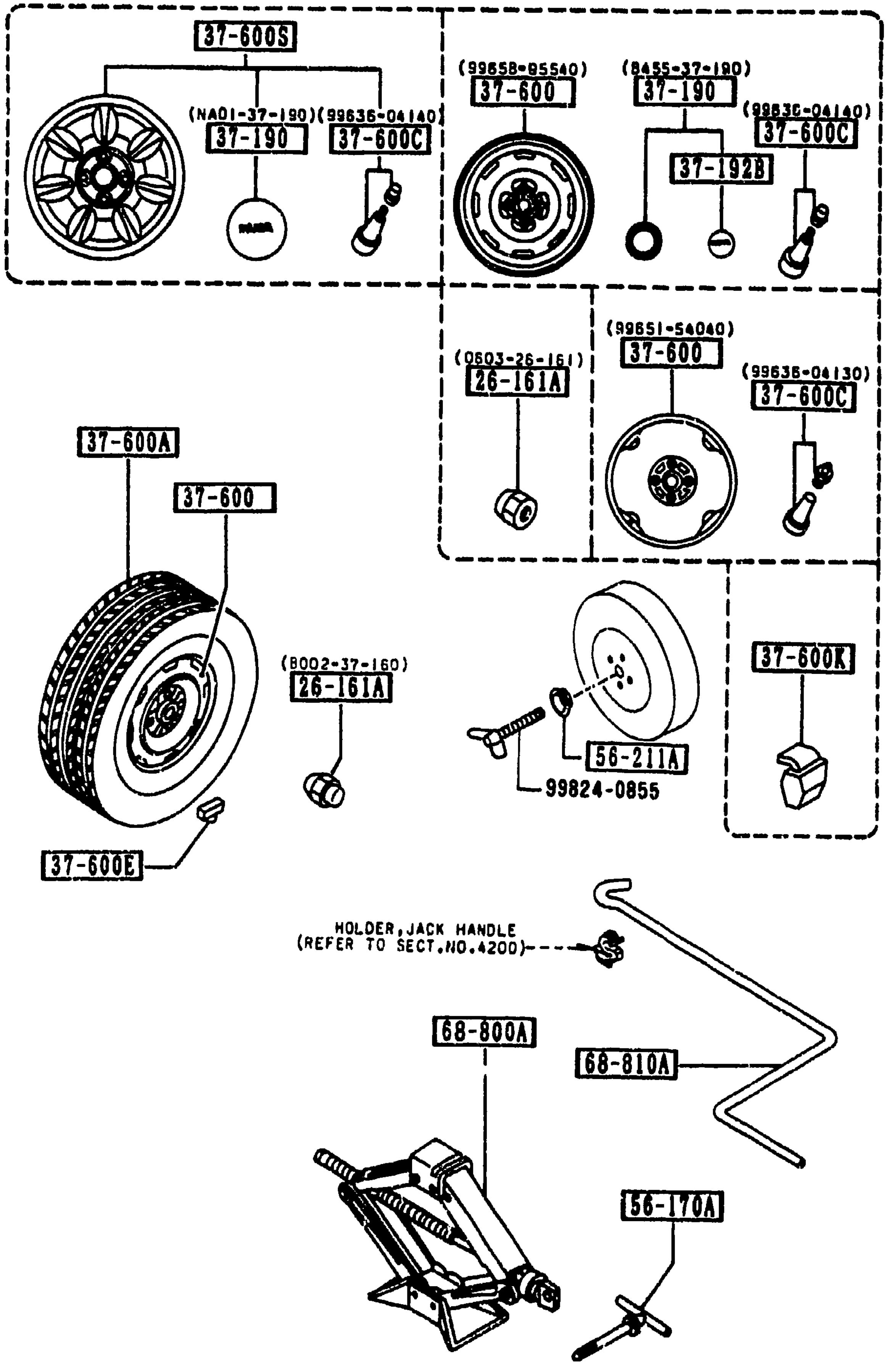
3700 TIRES & JACK


37-600S
(NA01-37-190)
37-190
(99636-04140)
37-600C
(99658-85540)
37-600
(8455-37-190)
37-190
37-192B
(99636-04140)
37-600C
(0603-26-161)
26-161A
(99651-54040)
37-600
(99636-04130)
37-600C
37-600A
37-600
(8002-37-160)
26-161A
56-211A
99824-0855
37-600K
37-600E
HOLDER,JACK HANDLE
(REFER TO SECT.NO.4200)
68-800A
68-810A
56-170A

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D 99655-30030	4	30G			
99655-30035	4	35G			
99655-30040	4	40G			
99655-30045	4	45G			
99655-30050	4	50G			
99655-30055	4	55G			
99655-30060	4	60G			
37-600K		WEIGHT,DISC WHEEL-ALUMI			
99655-90005	4	5G FOR 1-PIECE WHL			
99655-90010	4	10G FOR 1-PIECE WHL			
99655-90015	4	15G FOR 1-PIECE WHL			
99655-90020	4	20G FOR 1-PIECE WHL			
99655-90025	4	25G FOR 1-PIECE WHL			
99655-90030	4	30G FOR 1-PIECE WHL			
99655-90035	4	35G FOR 1-PIECE WHL			
99655-90040	4	40G FOR 1-PIECE WHL			
99655-90045	4	45G FOR 1-PIECE WHL			
99655-90050	4	50G FOR 1-PIECE WHL			
99655-90055	4	55G FOR 1-PIECE WHL			
99655-90060	4	60G FOR 1-PIECE WHL			
37-600S		WHEEL SET,DISC-ALUMI			
8BN1-37-600	4	5.5JJX14 NKK MAKE			
8BN3-37-600	4	5.5JJX14 ENKEI MAKE			0201-

0201 NA35**-137180

3700 TIRES & JACK



37-600S
(NA01-37-190)
37-190
(99636-04140)
37-600C
(99658-85540)
37-600
(B455-37-190)
37-190
37-192B
(99636-04140)
37-600C
(0603-26-161)
26-161A
(99651-54040)
37-600
(99636-04130)
37-600C
37-600A
37-600
(B002-37-160)
26-161A
56-211A
99824-0855
37-600K
37-600E
HOLDER,JACK HANDLE
(REFER TO SECT.NO.4200)
68-800A
68-810A
56-170A

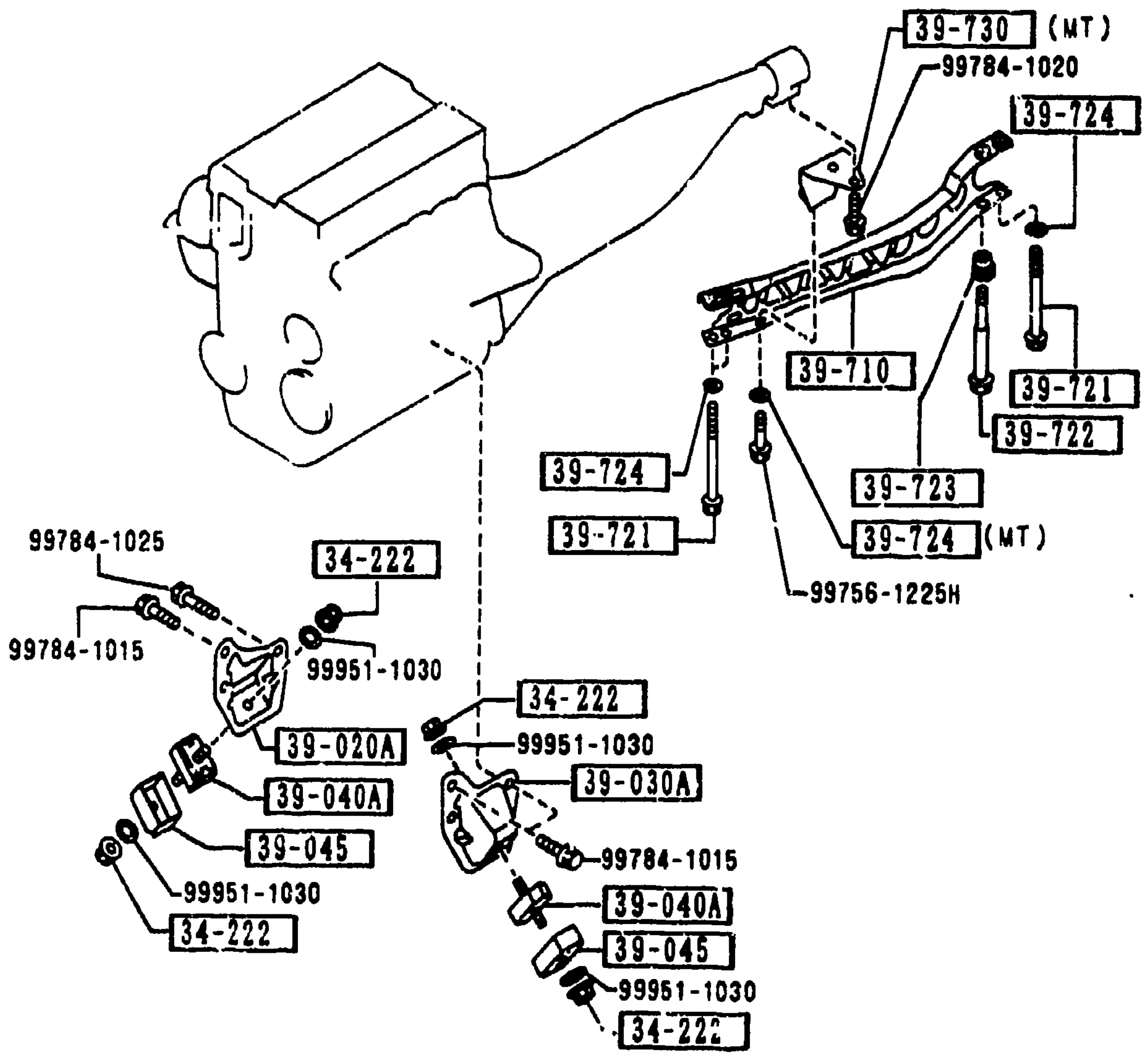
3700 -3 M TIRES & JACK

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-170A		BOLT,JACK SET			
B001-56-170C	1				
56-211A		PLATE,CLAMP-JACK			
1219-56-211	1				
68-800A		JACK			
B455-37-790 A (B455-37-790A)	1				-9901
B455-37-790A	1				9901-
68-810A		HANDLE,JACK			
GJ21-37-810	1				

9901 NA35MM-119257

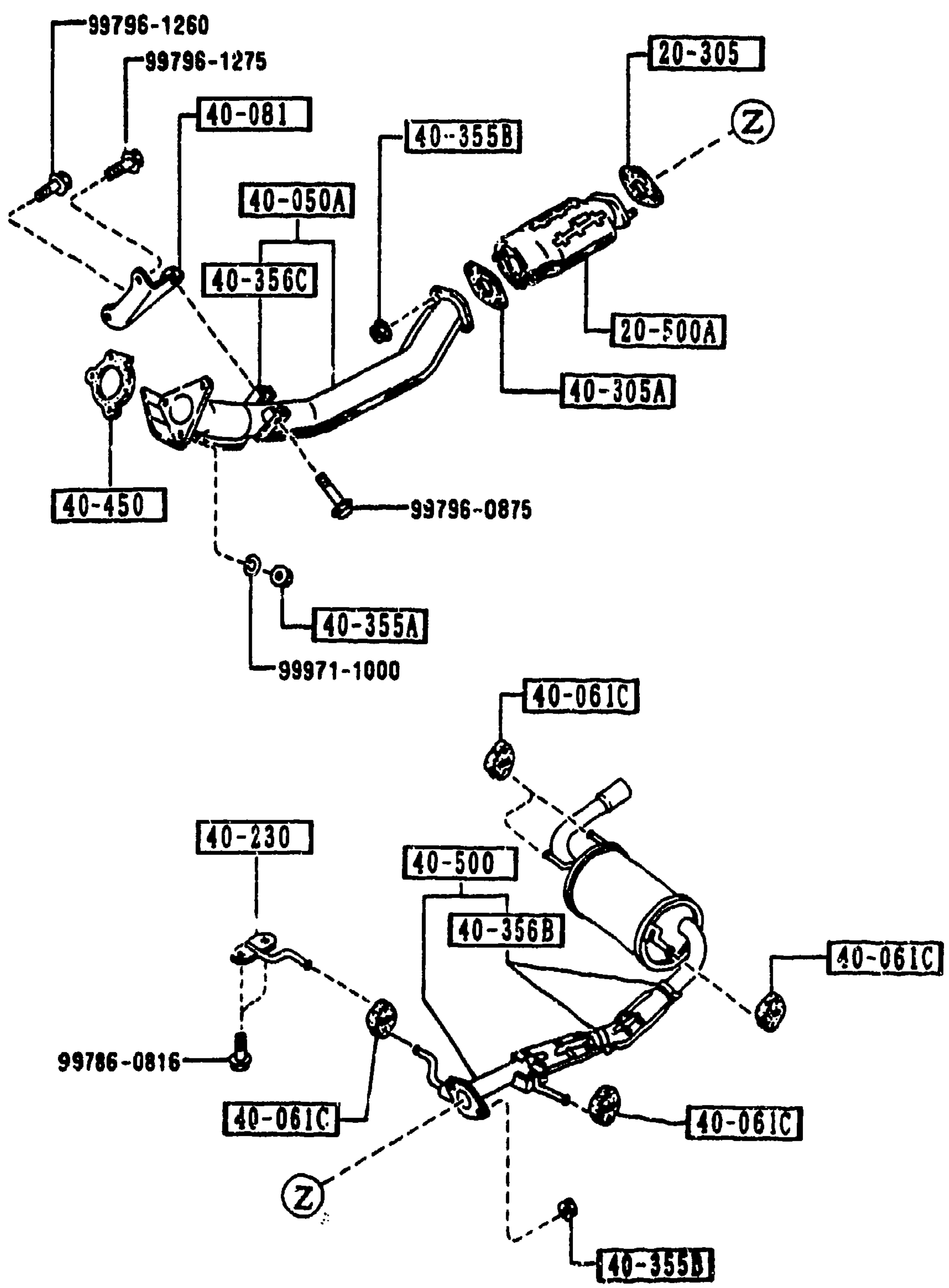
SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM			
1-D11	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM (AT)			
1-F11	2610	REAR BRAKE MECHANISMS						
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-D12	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-I12	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-I13	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-C14	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-D15	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMISSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-I15	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						


39-730 (MT)
99784-1020
39-724
39-710
39-721
39-722
39-724
39-723
39-721
39-724 (MT)
99756-1225H
99784-1025
34-222
99784-1015
99951-1030
39-020A
34-222
99951-1030
39-030A
39-040A
39-045
99951-1030
34-222
99784-1015
39-040A
39-045
99951-1030
34-222

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
34-222		NUT			
8871-34-222	4				
39-020A		BRACKET(R),ENGINE			
NA01-39-020	1				
39-030A		BRACKET(L),ENGINE			
NA01-39-030	1				
39-040A		RUBBER,ENGINE MT.			
NA01-39-040	2				
39-045		CASING,STOPPER			
NA01-39-041	2	(MT)			
S231-39-041	2	(AT)			
39-710		FRAME,POWER PLANT			
NA01-39-710	1	(MT)			
NA03-39-710	1	(AT)			
39-721		BOLT,PLANT FRAME			
NA01-39-721	3				
39-722		BOLT,PLANT FRAME			
NA01-39-722	1				
39-723		SPACER,PLANT FRAME			
NA01-39-723	1				
39-724		WASHER,PLAIN-FRAME			
NA01-39-724	3	(AT)			
	4	(MT)			
39-730		BRACKET,PLANT FRAME			
NA01-39-730 A (NA01-39-730A)	1				-9407
NA01-39-730A	1	(MT)			9407-

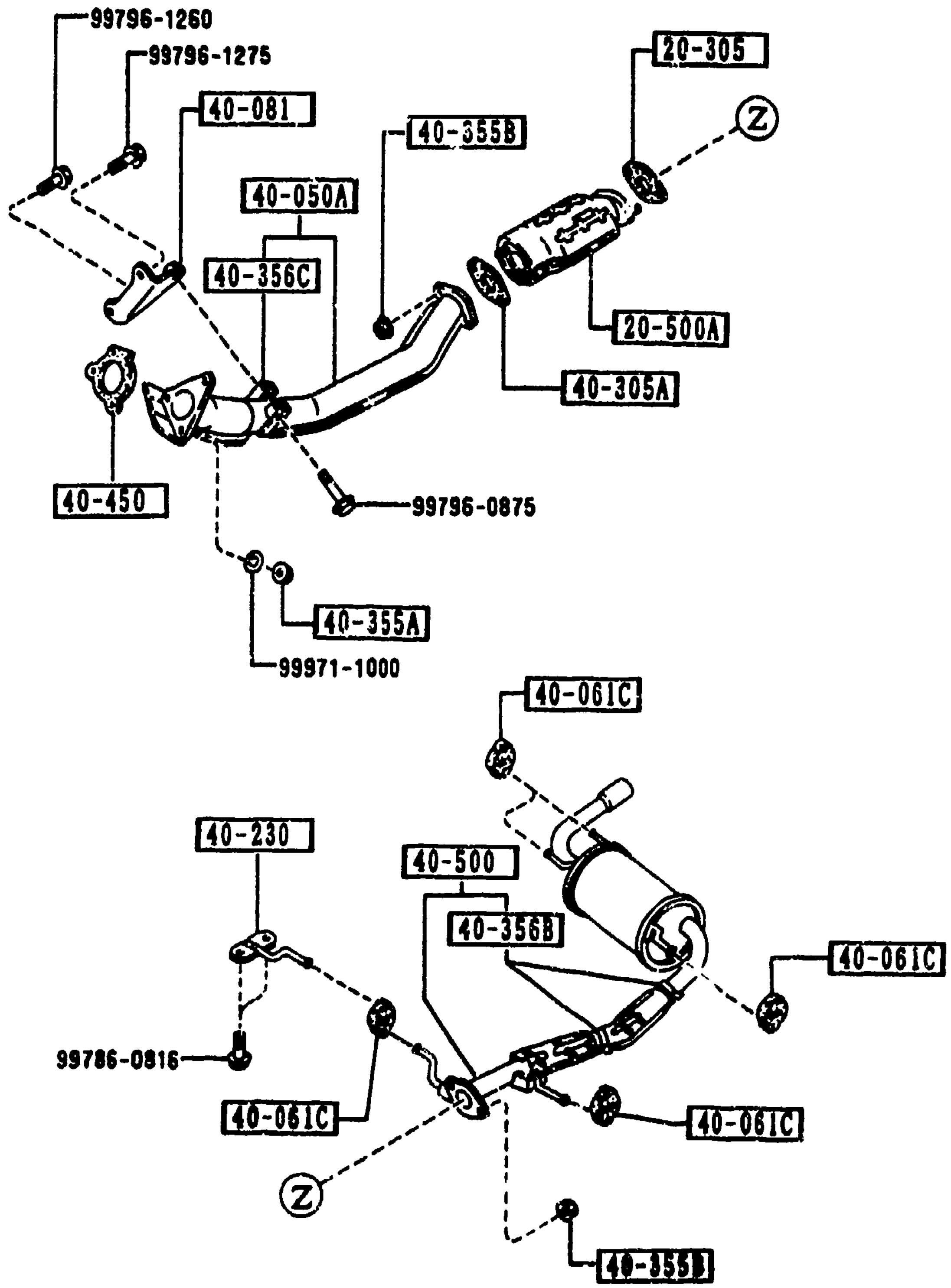
9407 NA35**-100180


99796-1260
99796-1275
40-081
40-355B
20-305
Z
40-050A
40-356C
20-500A
40-305A
40-450
99796-0875
40-355A
99971-1000
40-061C
40-230
40-500
40-356B
40-061C
99786-0816
40-061C
40-061C
Z
40-355B

4000 -1 EXHAUST SYSTEM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
20-305 B690-40-305	1	GASKET,EXH.PIPE-CONVERTER NON ASBESTOS			
20-500A B61P-20-690	1	CONVERTER,CATALYST			
40-050A B690-40-500A	1	PIPE,EXHAUST-FRONT			
40-061C RF03-40-061	5	HANGER,SILENCER			
40-081 B690-40-080A	1	BRACKET,HANGER			
40-230 B690-40-690	1	BRACKET,HANGER			
40-305A B322-40-305	1	GASKET NON ASBESTOS			
40-355A 2158-40-355	3	NUT			
40-355B JE10-40-355	4	NUT			
40-356B B6A5-40-356	2	BAND			
40-356C B690-40-356	1	BAND			
40-450 B690-40-450	1	GASKET,CONVERTER NON ASBESTOS			
40-500 B690-40-100D A (B690-40-100E)	1	SILENCER,MAIN			-9B20

9B20 NA35**-128848


99796-1260
99796-1275
40-081
40-355B
20-305
Z
40-050A
40-356C
20-500A
40-305A
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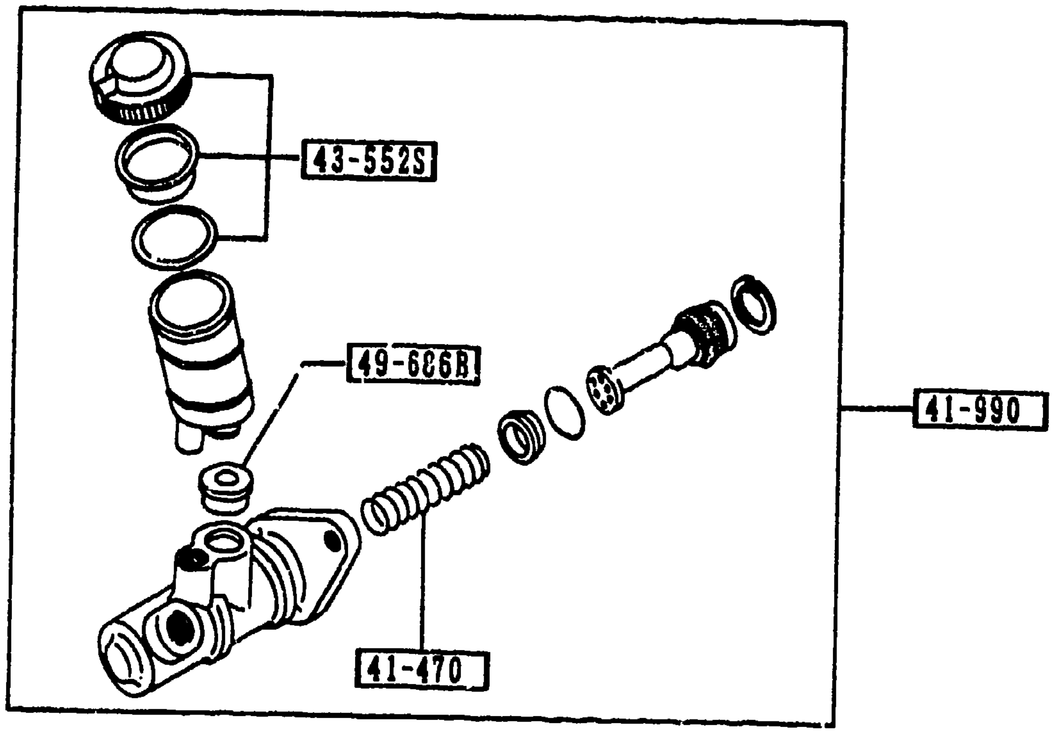
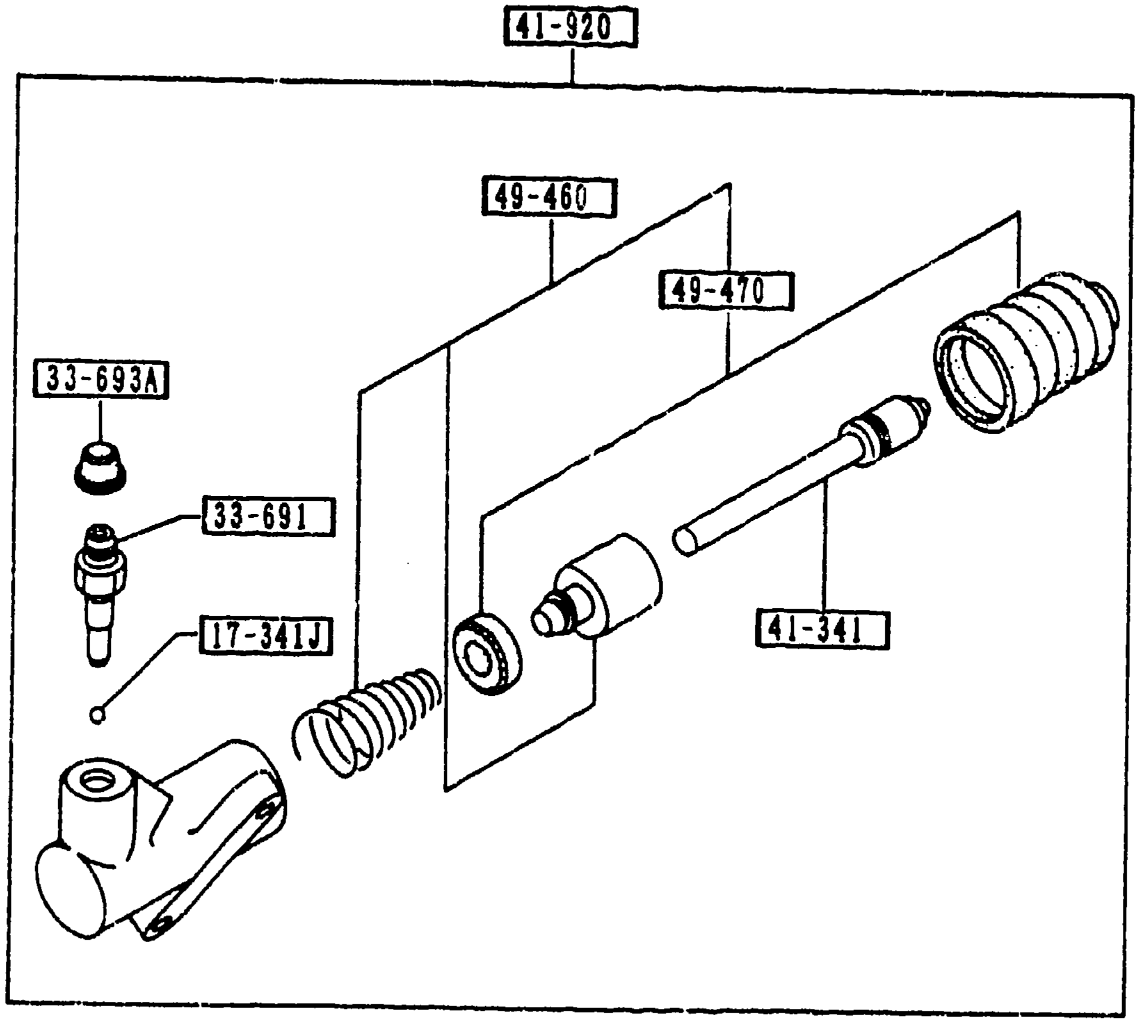
99796-0875
40-355A
99971-1000
40-061C
40-230
40-500
40-356B
40-061C
99786-0816
40-061C
40-061C
Z
40-355B

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
B6B4-40-100A A (B6B4-40-100B)	1				-0401
B690-40-100E A (B690-40-100F)	1				9B20-0401
B6B4-40-100B	1	(AT)			0401-
B690-40-100F	1	(MT)			0401-

9B20 NA35※※-128848
0401 NA35※※-146561

4140 CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)


43-552S
49-686B
41-990
41-470

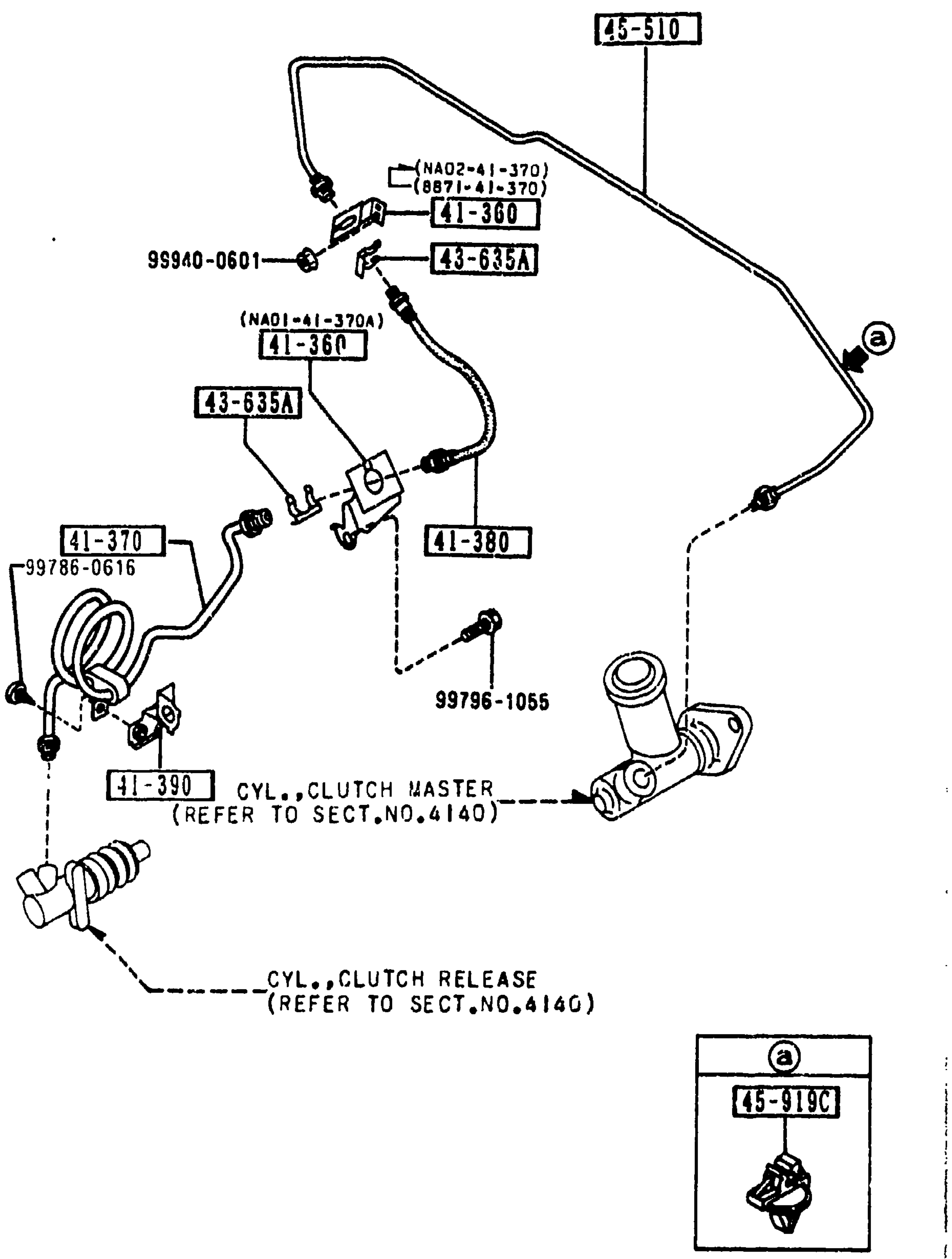

41-920
49-460
49-470
33-693A
33-691
17-341J
41-341

4140 -1 * CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-341J		BALL,STEEL			
99611-1500	1				
33-691		SCREW,BLEEDER			
0259-33-691	1				
33-693A		CAP,BLEEDER SCREW			
0259-33-693	1				
41-341		ROD,PUSH			
H266-41-341	1				
41-470		SPRING			
B312-41-470	1				
41-920		CYL.,CLUTCH RELEASE			
HE29-41-920A	1				-9701
NA01-41-920	1				9701-
41-990		CYL.,CLUTCH MASTER			
NA01-41-400A	1				
43-552S		CAP SET,RESERVE TANK			
B093-49-580	1				
49-460		PARTS KIT,INNER			
H005-49-460	1				
49-470		SEAL KIT			
H005-49-470	1				
49-686B		BUSH,ELBOW JOINT			
0305-49-686B	1				

9701 NA35**-111969

4145 CLUTCH PIPINGS (MANUAL TRANSMISSION)


45-510
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99940-0601
43-635A
(NA01-41-370A)
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43-635A
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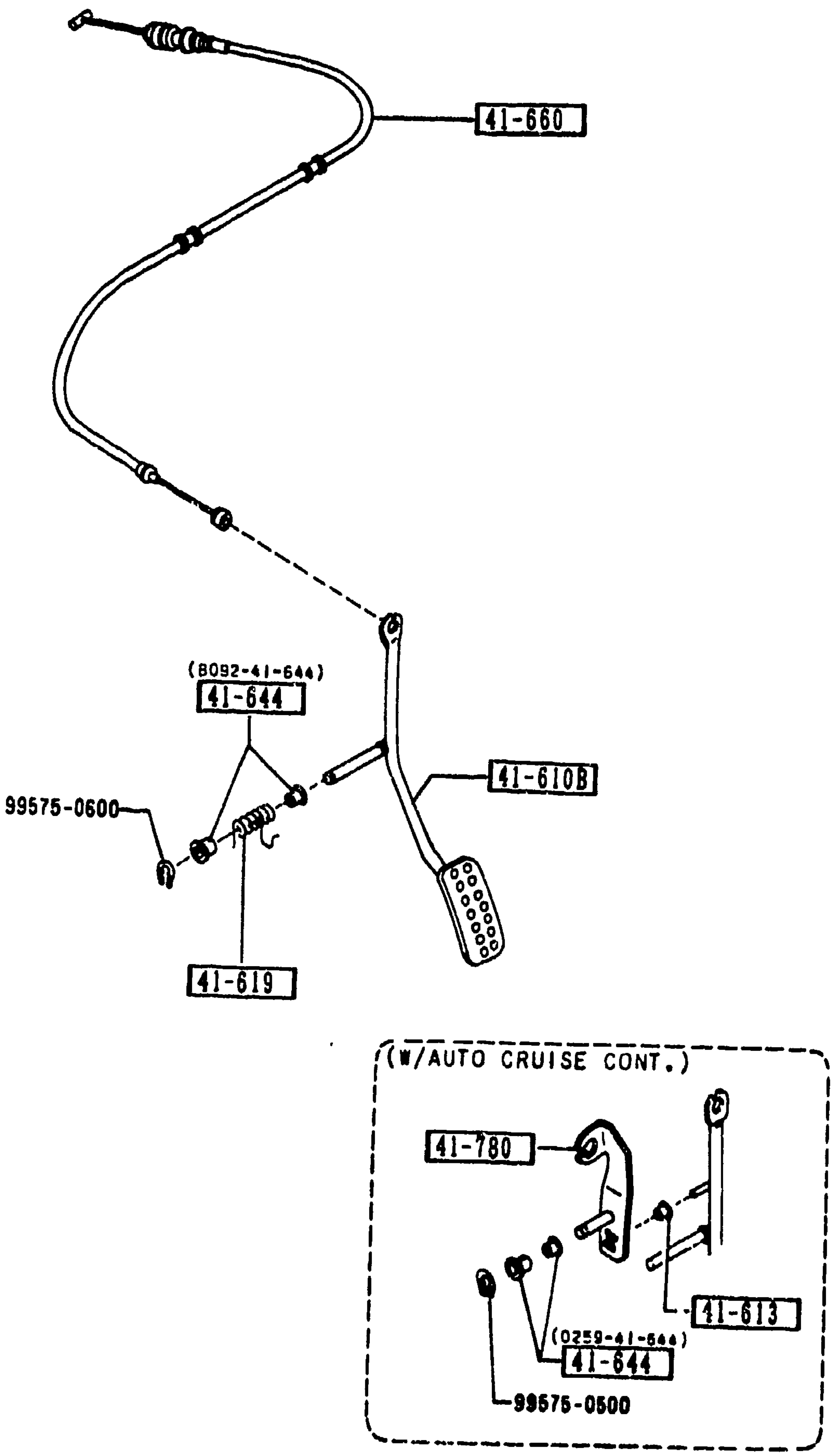
41-370
99786-0616
41-380
99796-1055
41-390
CYL.,CLUTCH MASTER
(REFER TO SECT.NO.4140)
CYL.,CLUTCH RELEASE
(REFER TO SECT.NO.4140)
a
45-919C

4145 -1 * CLUTCH PIPINGS (MANUAL TRANSMISSION)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
41-360		HOLDER,CLUTCH			
NA01-41-370A	1	SUMINO KOGYO			
8871-41-370	1				-0701
NA02-41-370	1	MIDORI			0701-
41-370		PIPE,CLUTCH			
NA01-41-360A	1				
41-380		HOSE,FLEXIBLE			
GK67-41-380A	1				
41-390		HOLDER,PIPE			
NA01-41-390	1				
43-635A		CLIP,FLEXIBLE HOSE			
0136-43-635	2				
45-510		PIPE,CLUTCH			
NA01-45-510B AN(NA01-45-510C)	1				-9601
NA01-45-510C	1				9601-
45-919C		CLIP,PIPE			
G030-45-919	1				

9601 NA35**-106797
0701 NA35**-200041

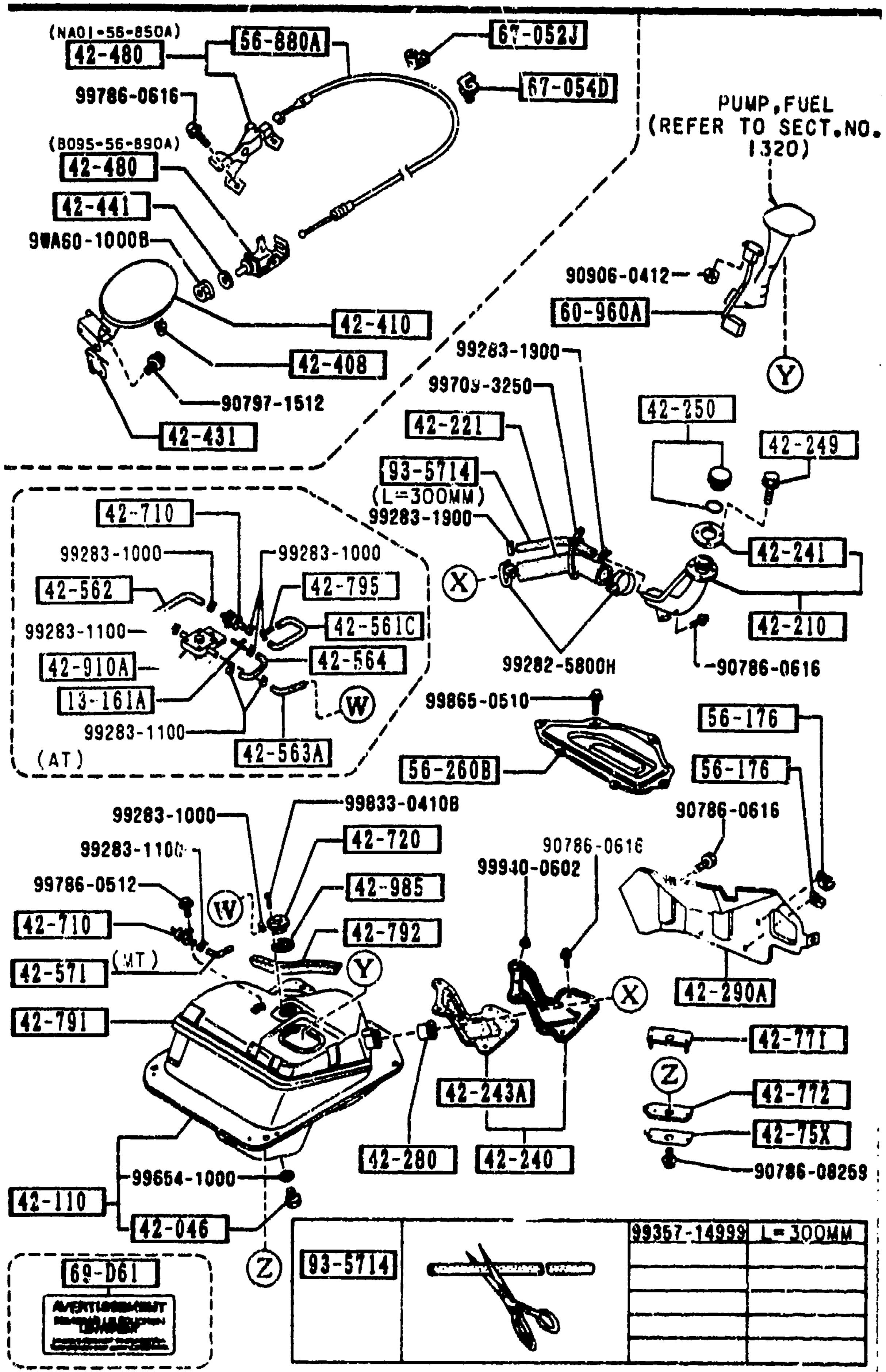
4160 ACCELERATOR CONTROL SYSTEM


41-660
(B092-41-644)
41-644
41-610B
99575-0600
41-619
(W/AUTO CRUISE CONT.)
41-780
41-613
(0259-41-644)
41-644
99575-0500

4160 -1 * ACCELERATOR CONTROL SYSTEM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
41-610B		PEDAL & ARM			
NA01-41-610 A (NA01-41-610A)	1				-0701
NA02-41-610 A (NA02-41-610A)	1				-0701
NA01-41-610A	1	BASE, (W/O AUTO CRUISE CON T.)			0701-
NA02-41-610A	1	PKG-OPT, (W/AUTO CRUISE CONT)			0701-
41-613		ROLLER			
B104-41-114	1	PKG-OPT, (W/AUTO CRUISE CONT)			
41-619		SPRING,RETURN			
NA01-41-619	1				
41-644		BUSH			
B092-41-644	2	OIRES KOGYO			
0259-41-644	2	ONDO KOSAKUSHO PKG-OPT, (W/AUTO CRUISE CONT)			
41-660		CABLE,ACCEL.			
NA01-41-660A	1				
41-780		LEVER,ACCELERATOR			
NA01-41-130A	1	PKG-OPT, (W/AUTO CRUISE CONT)			

0701 NA35**-200041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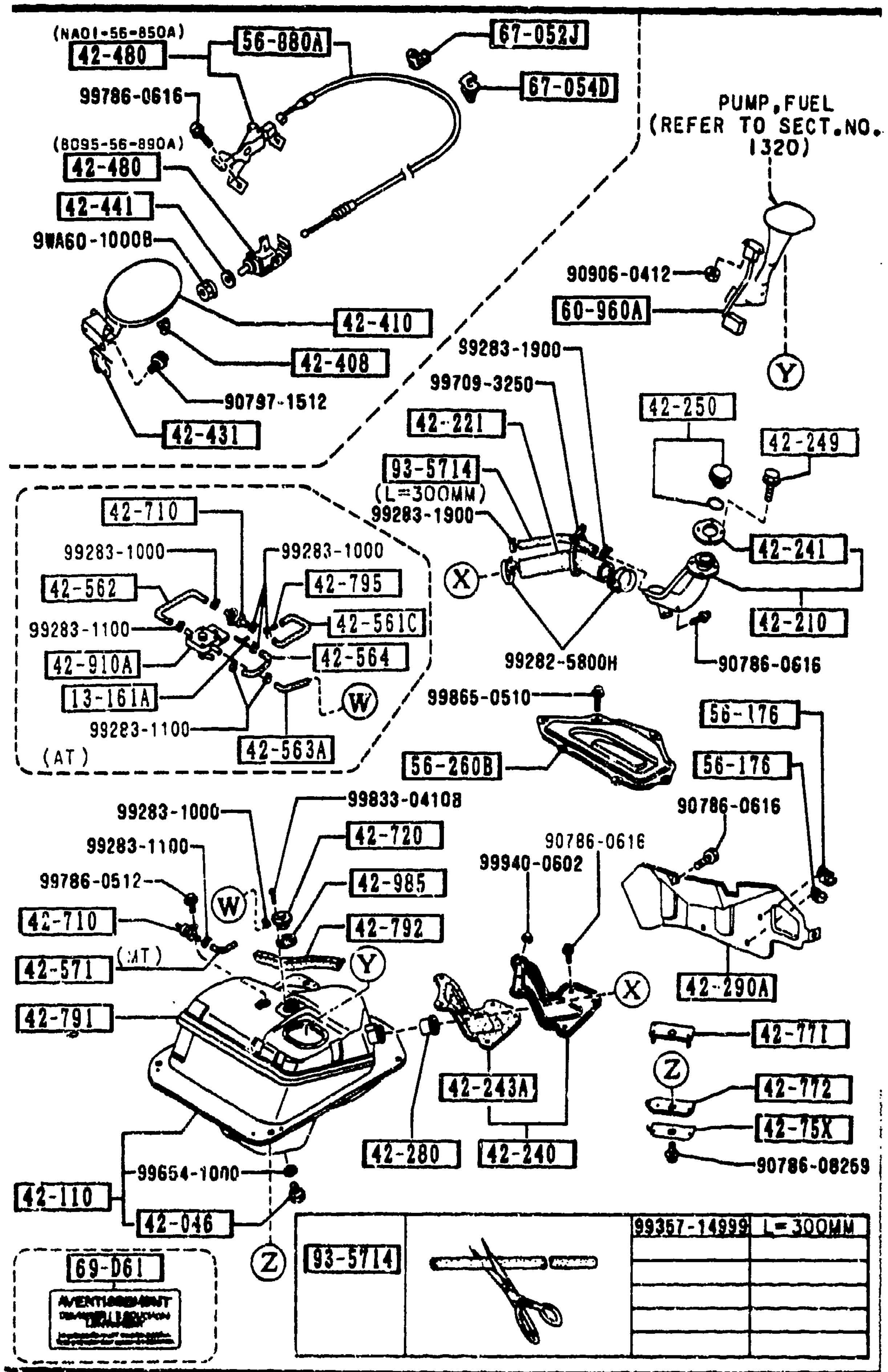
42-480
56-880A
67-052J
67-054D
99786-0616
(B095-56-890A)
42-480
42-441
9WA60-1000B
42-410
42-408
90797-1512
42-431
PUMP,FUEL
(REFER TO SECT.NO.
1320)
90906-0412
60-960A
Y
99283-1900
99709-3250
42-221
93-5714
(L=300MM)
99283-1900
42-250
42-249
42-241
42-210
X
99282-5800H
90786-0616
42-710
99283-1000
99283-1000
42-562
42-795
99283-1100
42-561C
42-564
42-910A
13-161A
W
99283-1100
42-563A
(AT)
99865-0510
56-176
56-260B
56-176
99283-1000
99833-0410B
42-720
90786-0616
99283-1100
90786-0616
99940-0602
99786-0512
42-985
W
42-710
42-792
42-571
(MT)
Y
42-290A
42-791
X
42-771
Z
42-772
42-243A
42-75X
90786-08258
42-280
42-240
99664-1000
42-110
42-046
Z
69-D61
93-5714
99357-14999
L=300MM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-161A		JOINT'T'			
E580-13-161	1	(AT)			
42-046		PLUG,DRAIN			
BC88-42-045	1				
42-110		TANK,FUEL			
NA03-42-110	1	(AT)			
NA01-42-110 C (NA01-42-110A)	1				-9601
NA01-42-110A	1	(MT)			9601-
42-210		PIPE,FILLER			
NA01-42-210 CG(NA01-42-210A)	1				-9901
NA01-42-210A	1				9901-
42-221		HOSE,FILLER			
NA01-42-241	1				-9901
NA01-42-241A AN(NA01-42-241B)	1				9901-0101
NA01-42-241B	1				0101-
42-240		COVER,DUST			
NA01-42-230	1				
42-241		GASKET,FILLER PIPE			
0866-42-366B	1				
42-243A		GASKET'A',DUST COVER			
NA01-42-233	1				
42-249		BOLT,FILLER PIPE			
NA01-42-249 AN(NA01-42-249A)	4				-0222
NA01-42-249A AN(NA01-42-249B)	4				0222-0701
NA01-42-249B	4				0701-
42-250		CAP,FILLER			
NA02-42-250	1				

NA01-42-210
CG NA01-42-210A
H260-42-270

9601 NA35**-106797
9901 NA35**-119257
0101 NA35**-133591
0222 NA35**-140861
0701 NA35**-200041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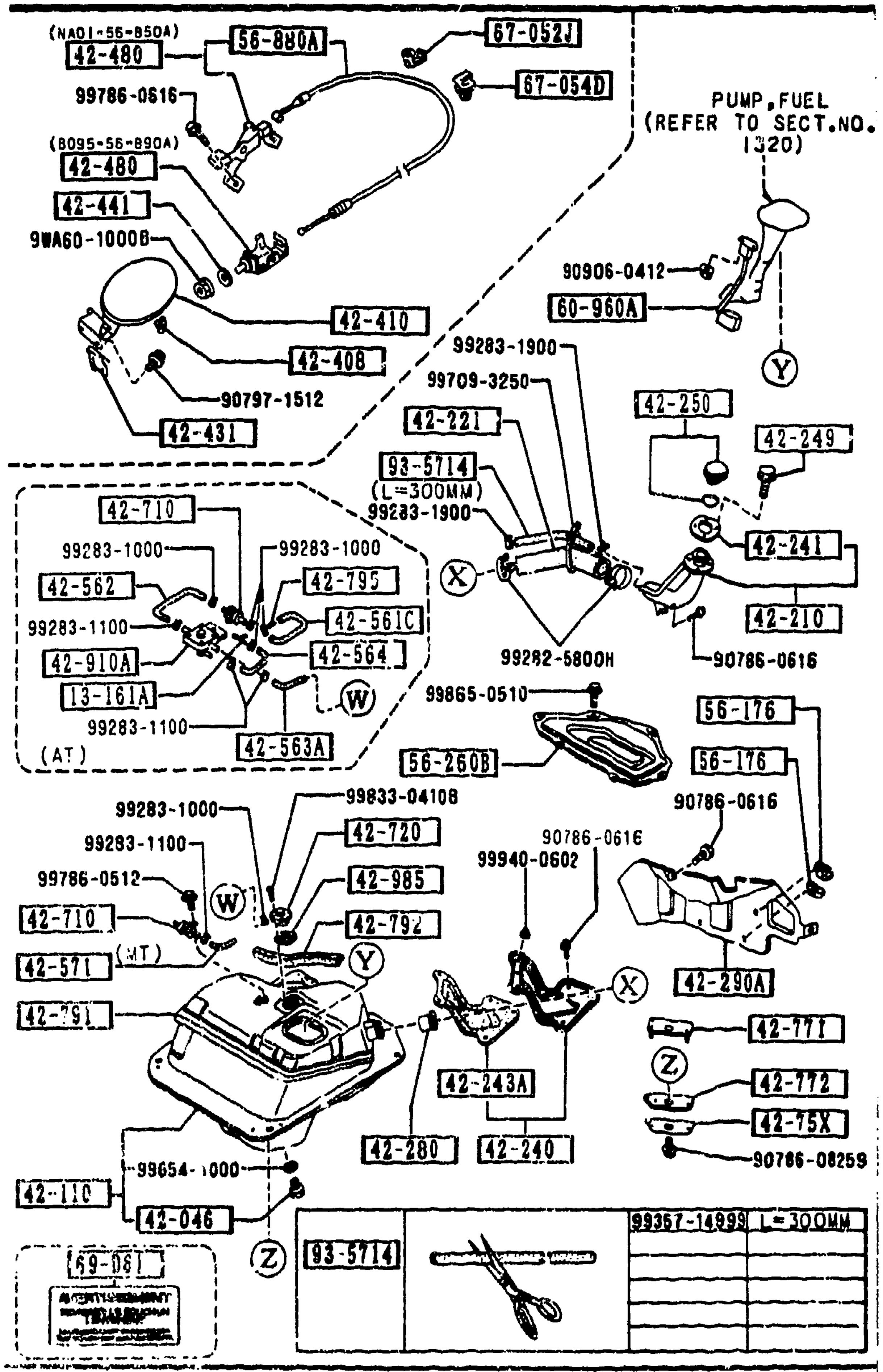
42-480
56-880A
67-052J
67-054D
99786-0616
(B095-56-890A)
42-480
42-441
9WA60-10008
PUMP,FUEL
(REFER TO SECT.NO.
1320)
90906-0412
60-960A
42-410
42-408
90797-1512
42-431
Y
99283-1900
99709-3250
42-221
42-250
42-249
93-5714
(L=300MM)
99283-1900
42-710
99283-1000
99283-1000
42-562
42-795
42-561C
99283-1100
42-910A
42-564
13-161A
W
99283-1100
42-563A
(AT)
X
42-241
42-210
99282-5800H
90786-0616
99865-0510
56-176
56-260B
56-176
99283-1000
99833-04108
42-720
99283-1100
90786-0616
90786-0616
99940-0602
99786-0512
42-985
W
42-710
42-792
42-571
(MT)
Y
X
42-791
42-290A
42-771
Z
42-243A
42-772
42-75X
42-280
42-240
90786-08269
42-110
99654-1000
42-046
Z
69-061
AVERTISSEMENT
93-5714
99357-14999
L=300MM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
42-280		VALVE,NON RETURN			
GB53-42-270	1				-9901
H260-42-270	1				9901-
42-290A		PROTECTOR'A',FILLER PIPE			
NA01-42-291A	1				
42-408		STOPPER,FILLER LID			
0187-70-491	2				
42-410		LID,FUEL FILLER			
NA01-42-410 AN(NA01-42-410A)	1				-9801
NA01-42-410A	1				9801-
42-431		SPRING LIFT,LID			
H043-42-431D	1				
42-441		WASHER,LID OPENER			
NA01-56-896	1				
42-480		OPENER,FILLER LID			
NA01-56-850A	1				
B095-56-890A	1				
42-561C		HOSE NO 1,BREATHER			
NA03-42-561	1	(AT)			
42-562		HOSE NO.2,BREATHER			
NA03-42-562	1	(AT)			
42-563A		HOSE NO.3,BREATHER			
NA03-42-563	1	(AT)			
42-564		HOSE NO.4,BREATHER			
NA03-42-564	1	(AT)			
42-571		HOSE,VENT			
NA01-42-561	1	(MT)			

9901 NA35**-119257
9801 NA35**-126490

4200 FUEL TANK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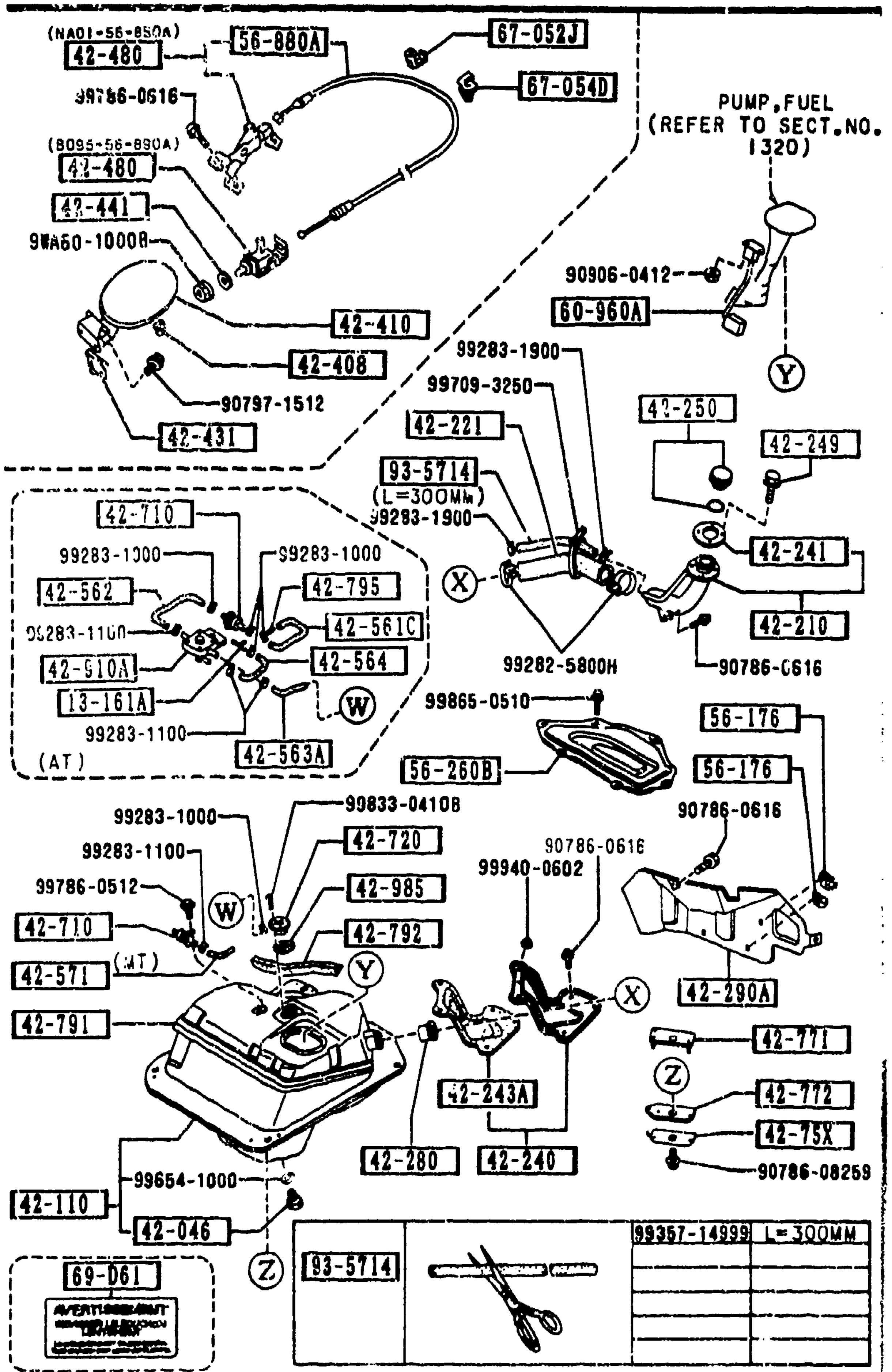
42-480
56-880A
67-052J
67-054D
99786-0616
(B095-56-890A)
42-480
42-441
9WA60-10008
42-410
42-408
90797-1512
42-431
PUMP,FUEL
(REFER TO SECT.NO. 1320)
90906-0412
60-960A
Y
99283-1900
99709-3250
42-221
93-5714
(L=300MM)
99283-1900
42-250
42-249
42-241
42-210
X
99282-5800H
90786-0616
42-710
99283-1000
99283-1000
42-562
42-795
42-561C
99283-1100
42-564
42-910A
13-161A
W
99283-1100
42-563A
(AT)
99865-0510
56-260B
56-176
56-176
90786-0616
99283-1000
99833-04108
42-720
99283-1100
42-985
99786-0512
W
42-792
42-710
42-571
(MT)
Y
42-791
90786-0616
99940-0602
X
42-290A
42-771
Z
42-772
42-75X
90786-08259
42-243A
42-280
42-240
99654-1000
42-110
42-046
Z
69-061
93-5714
99357-14999
L=300MM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
42-710 H260-42-910B	1	VALVE,CHECK			
42-720 FB01-42-980	1	VALVE,FUEL VAPOR.			
42-75X NA01-42-77X	4	REINF.,FUEL TANK			
42-771 NA01-42-771	4	RUBBER(UP),MOUNT-TANK			
42-772 NA01-42-772	4	RUBBER(LWR),MOUNT-TANK			
42-791 NA01-42-761	1	PAD,FUEL TANK			
42-792 NA01-42-762	1	PAD,FUEL TANK			
42-795 GN51-42-795	1	INSERT (AT)			
42-910A NA03-42-910	1	VALVE'A',CHECK-BREATHER (AT)			
42-985 FB01-42-985	1	GASKET,VAPOR VALVE			
56-176 G030-56-176	3	HOLDER,JACK HANDLE			
56-260B NA01-56-260	1	COVER,GAUGE-FUEL TANK			
56-880A NA01-56-890A	1	CABLE,F/LID OPENER			
60-960A NA01-60-960	1	GAUGE,FUEL TANK			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42-480
56-880A
67-052J
67-054D
99786-0616
(B095-56-890A)
42-480
42-441
9WA60-1000B
42-410
42-408
90797-1512
42-431
PUMP,FUEL
(REFER TO SECT.NO.
1320)
90906-0412
60-960A
Y
99283-1900
99709-3250
42-221
93-5714
(L=300MM)
99283-1900
X
99282-5800H
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42-710
99283-1000
99283-1000
42-562
42-795
42-561C
99283-1100
42-564
42-510A
13-161A
W
99283-1100
42-563A
(AT)
99865-0510
56-260B
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56-176
90786-0616
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42-710
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(MT)
Y
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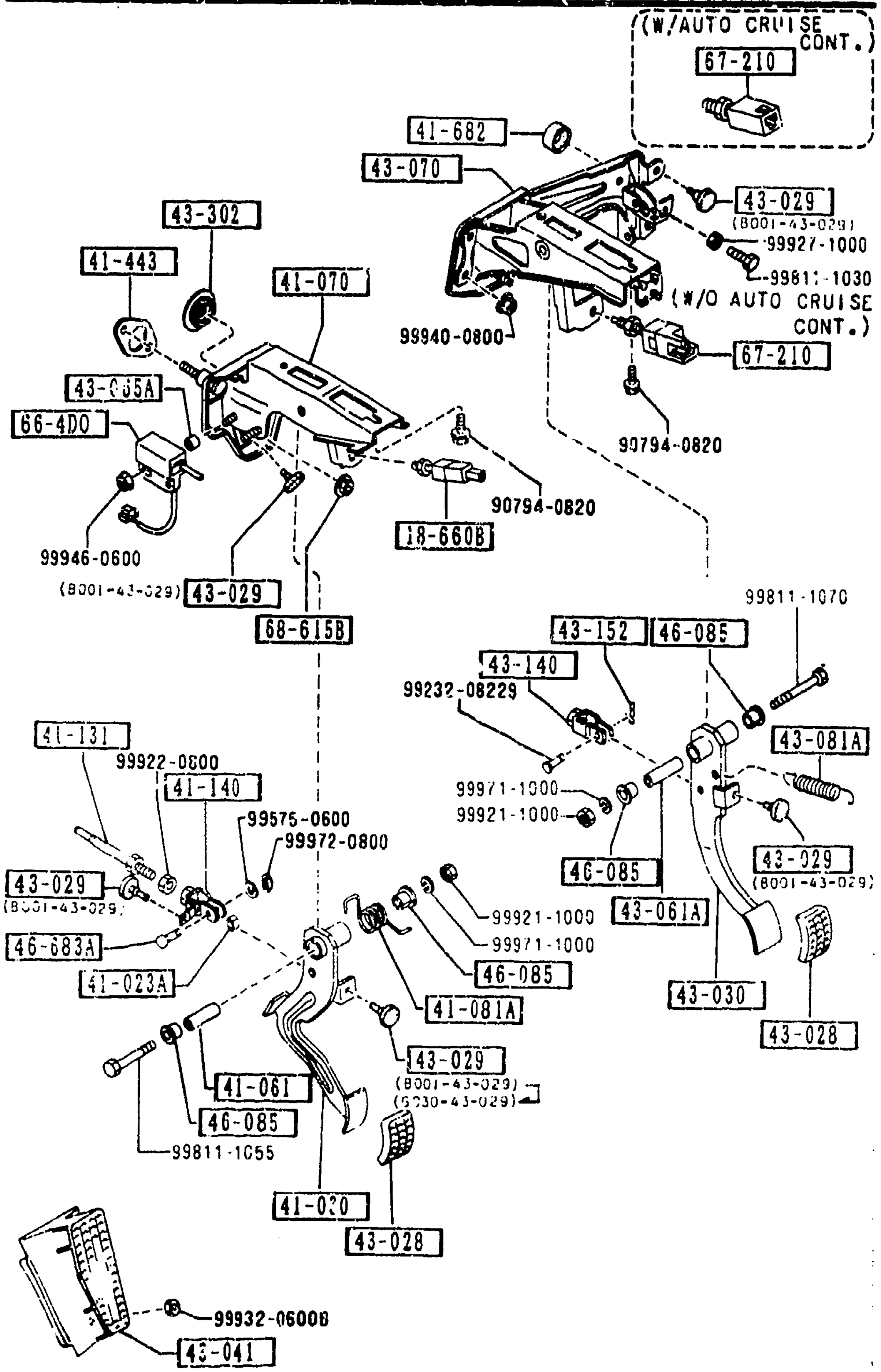
42-771
Z
42-772
42-75X
90786-08259
42-110
99654-1000
42-046
Z
69-D61
93-5714
99357-14999
L=300MM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-052J		CLIP			
B001-67-051	1				
67-054D		CLIP			
H260-67-054	2				
69-D61		LABEL,FUEL WARNING			
KA10-69-D61	1				
93-5714		HOSE			
99357-14999	1				

4300 CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)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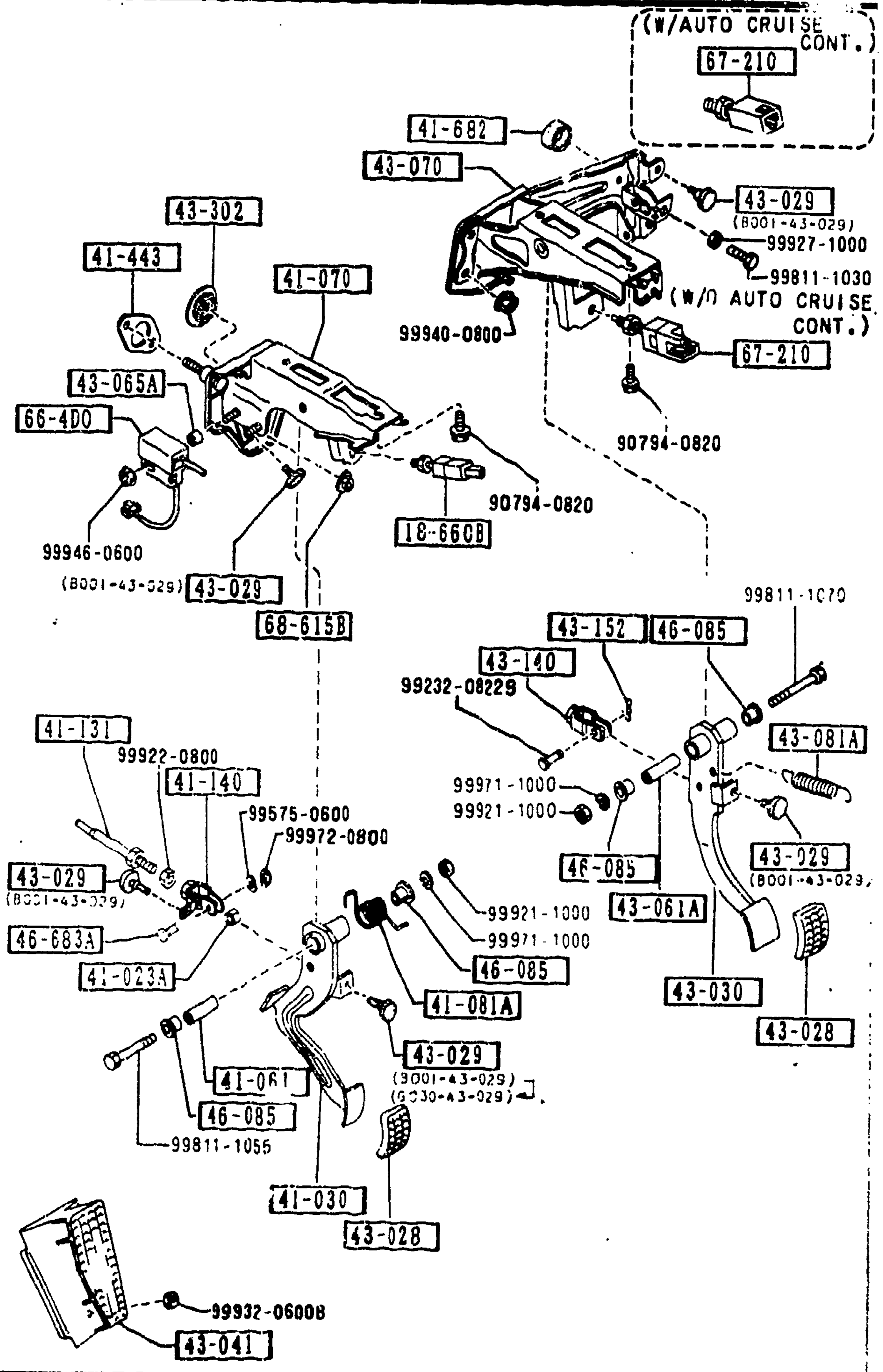
67-210
41-682
43-070
43-029
(B001-43-029)
99927-1000
99811-1030
(W/O AUTO CRUISE CONT.)
67-210
43-302
41-443
41-070
99940-0800
90794-0820
43-005A
66-4D0
90794-0820
18-660B
99946-0600
(B001-43-029)
43-029
68-615B
99811-1070
43-152
46-085
43-140
99232-08229
43-081A
41-131
99922-0800
41-140
99971-1000
99921-1000
99575-0600
99972-0800
43-029
(B001-43-029)
46-085
43-061A
43-029
(B001-43-029)
46-683A
41-023A
99921-1000
99971-1000
46-085
43-030
43-028
41-081A
43-029
(B001-43-029)
(G030-43-029)
41-061
46-085
99811-1055
41-020
43-028
99932-06008
43-041

4300 -1 CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
18-660B		SWITCH,CLUTCH			
LA01-66-490A	1				
41-023A		BUSH			
0727-41-023	1				
41-030		PEDAL,CLUTCH			
NA01-41-030B	1				
41-061		SPACER			
0727-41-061	1				
41-070		BRACKET,MASTER CYL.			
NA01-41-070A	1				
41-081A		SPRING,RETURN			
BR70-41-081	1				
41-131		ROD,PUSH			
0824-41-131	1				
41-140		FORK,CLUTCH			
NA01-41-140B	1				
41-443		GASKET			
NA01-41-443	1				
41-682		RUBBER,STOP			
1456-41-682	1	PKG-OPT, (W/AUTO CRUISE CONT)			
43-028		PAD,PEDAL			
B092-43-028	2				
43-029		RUBBER,STOPPER			
B001-43-029	5				-9901
B001-43-029	4				9901-
G030-43-029	1				9901-
43-030		PEDAL,BRAKE			

9901 NA35**-119257

4300 CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)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67-210
41-682
43-070
43-029
(B001-43-029)
99927-1000
99811-1030
(W/O AUTO CRUISE CONT.)
43-302
41-443
41-070
99940-0800
67-210
90794-0820
43-065A
66-4D0
90794-0820
18-66CB
99946-0600
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43-029
68-615B
99811-1070
43-152
46-085
43-140
99232-08229
43-081A
41-131
99922-0800
41-140
99971-1000
99921-1000
99575-0600
99972-0800
46-085
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46-085
41-081A
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(B001-43-029)
(G030-43-029)
41-061
46-085
99811-1055
41-030
43-028
99932-06008
43-041

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-43-030	1				
43-041		REST,FOOT			
NA01-43-041	1				
43-061A		PIPE,PEDAL			
0866-43-062	1				
43-065A		SPACER			
BR70-43-065	2				
43-070		BRACKET,MASTER CYL.			
NA01-43-070A	1	BASE, (W/O AUTO CRUISE CONT.)			
NA02-43-070A	1	PKG-OPT, (W/AUTO CRUISE CONT)			
43-081A		SPRING,RETURN-BRAKE			
0092-41-081	1				
43-140		FORK,BRAKE			
1524-43-140	1				
43-152		PIN,SNAP			
D001-43-152	1				
43-302		GROMMET,BRAKE PEDAL			
B180-43-302	1				
46-085		BUSH			
1015-46-085	4				
46-683A		PIN			
0223-46-683	1				
66-4D0		SWITCH,CLUTCH CUT			
FB01-66-4D0	1				
67-210		SWITCH,LIGHT-BRAKE			
BR70-66-490A	1	PKG-OPT, (W/AUTO CRUISE CONT)			

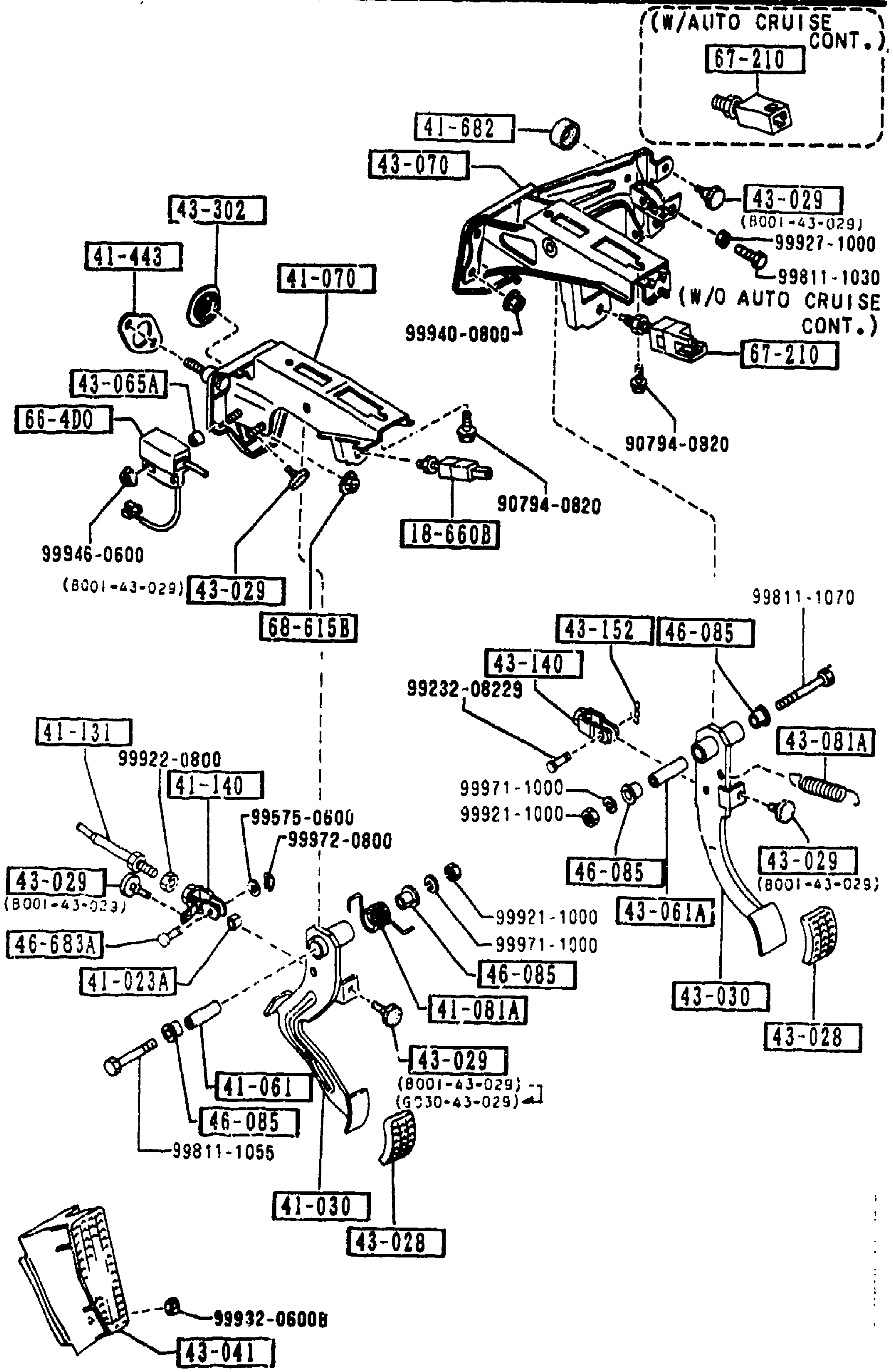
SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT
1-D11	2550	REAR DRIVE SHAFT
1-E11	2600	REAR AXLE
1-F11	2610	REAR BRAKE MECHANISMS
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)
1-D12	2800	REAR SUSPENSION MECHANISMS
1-E12	2801	REAR SPRING & DAMPER
1-F12	2810	REAR STABILIZER
1-G12	2830	REAR LOWER ARMS & SUB FRAME
1-I12	3200	STEERING WHEEL
1-L12	3210	STEERING COLUMN & SHAFTS
1-M12	3220	STEERING GEAR (W/O POWER STEERING)
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)
1-F13	3240	POWER STEERING SYSTEM
1-H13	3300	FRONT AXLE
1-I13	3310	FRONT BRAKE MECHANISMS
1-K13	3400	FRONT SUSPENSION MECHANISMS
1-M13	3401	FRONT SPRING & DAMPER
1-N13	3410	CROSSMEMBER & STABILIZER
1-C14	3700	TIRES & JACK
1-C15	3900	ENGINE & T/MISSION MOUNTINGS
1-D15	4000	EXHAUST SYSTEM
1-F15	4140	CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMISSION)
1-H15	4160	ACCELERATOR CONTROL SYSTEM
1-I15	4200	FUEL TANK
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE
1-H16	4360	BRAKE PIPINGS
1-J16	4400	PARKING BRAKE SYSTEM
1-L16	4500	FUEL PIPINGS
2-C03	4600	CHANGE CONTROL SYSTEM (AT)

CATLOG-NO= AUNA01-07

DATE. 1992-02

4300 CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)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67-210
41-682
43-070
43-029
(B001-43-029)
99927-1000
99811-1030
(W/O AUTO CRUISE CONT.)
67-210
90794-0820
99940-0800
43-302
41-443
41-070
43-065A
66-4D0
90794-0820
18-660B
99946-0600
(B001-43-029)
43-029
68-615B
99811-1070
43-152
46-085
43-140
99232-08229
43-081A
99971-1000
99921-1000
46-085
43-061A
43-029
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43-030
43-028
41-131
99922-0800
41-140
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46-683A
41-023A
99921-1000
99971-1000
46-085
41-081A
43-029
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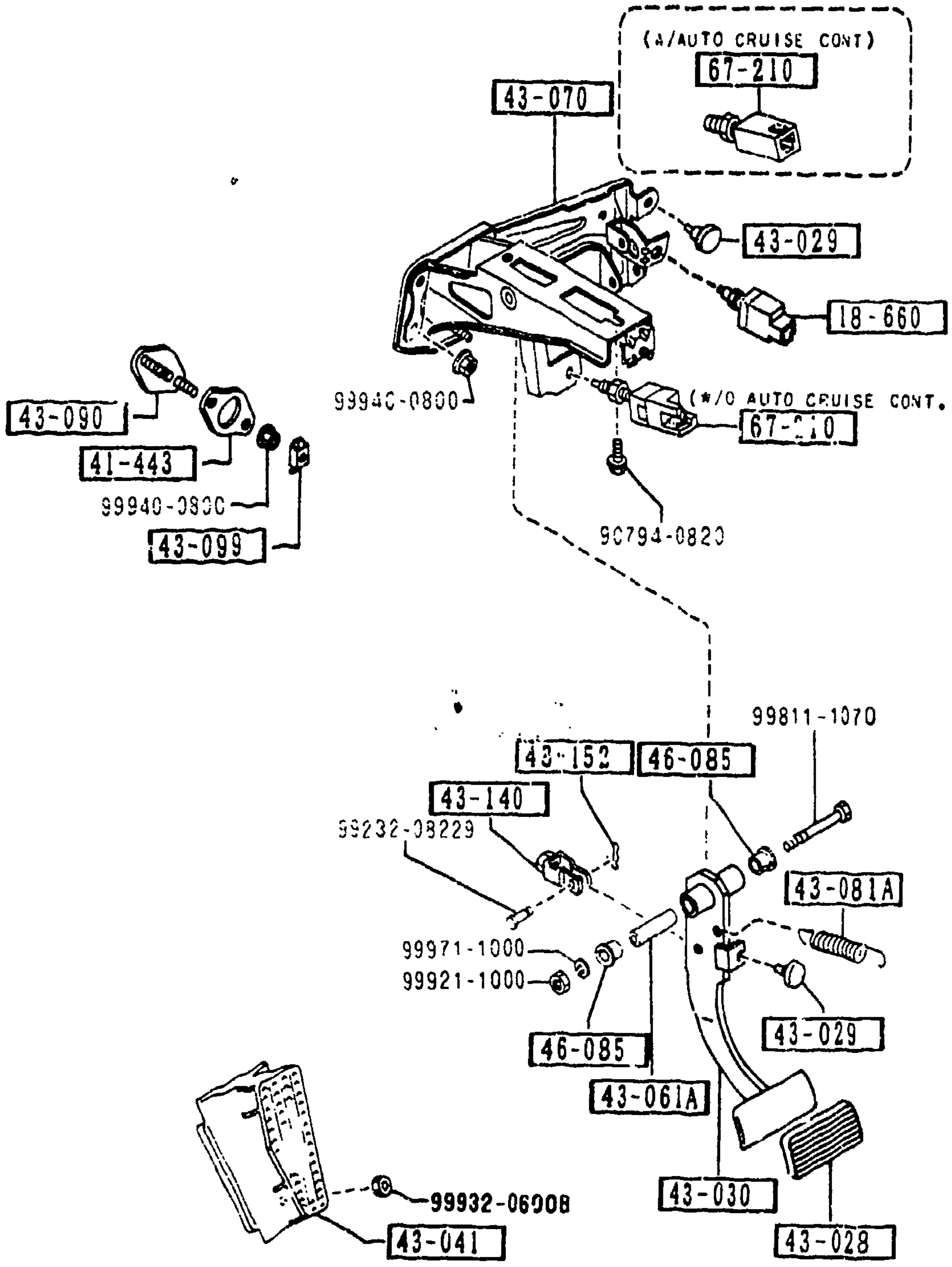
(G030-43-029)
41-061
46-085
99811-1055
41-030
43-028
99932-0600B
43-041

4300 -3 M CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
B001-66-490A	1	BASE, (W/O AUTO CRUISE CONT.)			
68-615B		NUT,FLANGE-CAP			
B100-68-615	1				

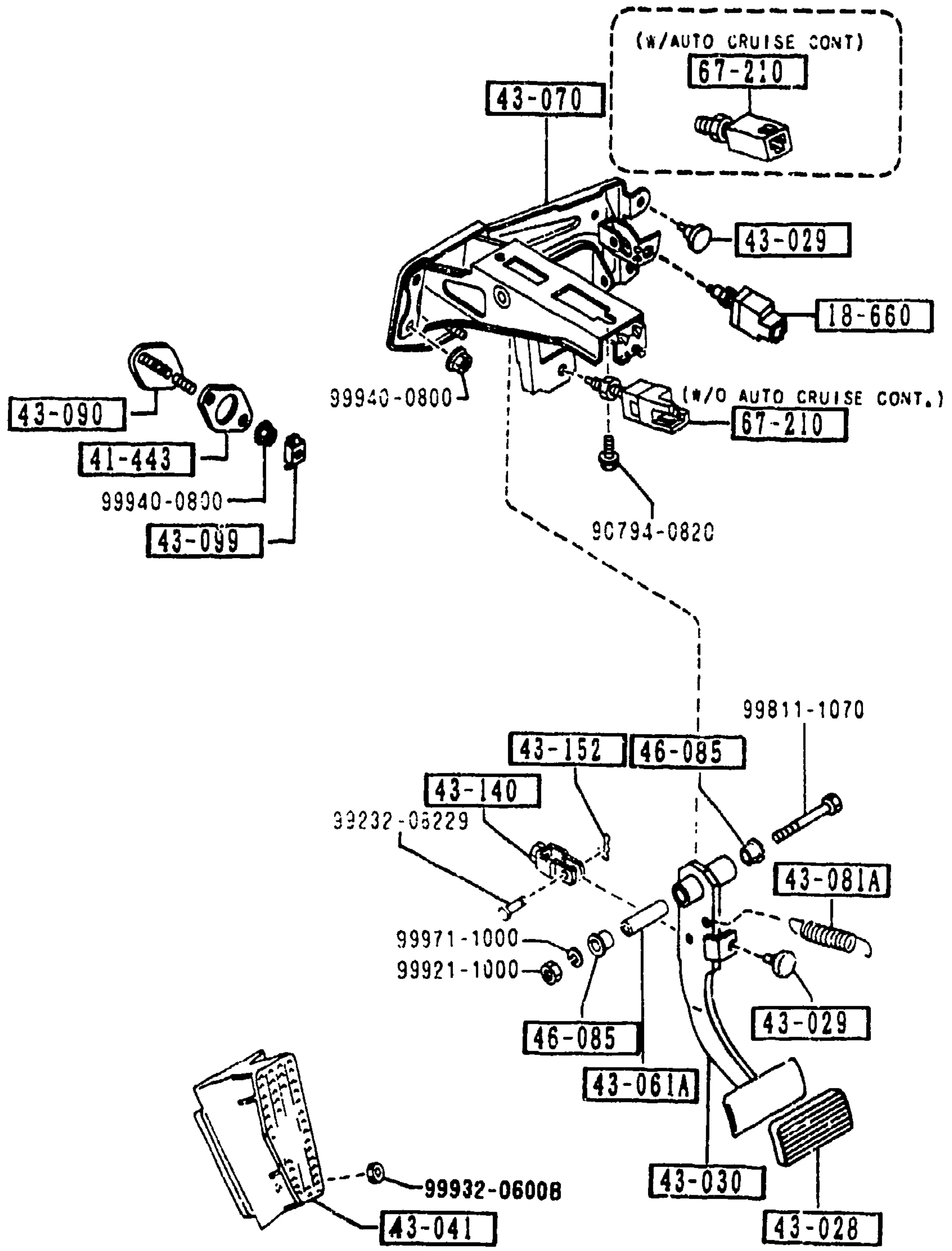
4300A BRAKE PEDALS (AUTOMATIC TRANSMISSION)


(W/AUTO CRUISE CONT)
67-210
43-070
43-029
18-660
99940-0800
(W/O AUTO CRUISE CONT.)
67-210
43-090
41-443
99940-0800
43-099
90794-0820
99811-1070
43-152
46-085
43-140
99232-08229
43-081A
99971-1000
99921-1000
43-029
46-085
43-061A
99932-06008
43-030
43-041
43-028

4300A -1 BRAKE PEDALS (AUTOMATIC TRANSMISSION)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
18-660		SWITCH,KICK DOWN			
H118-66-470	1				
41-443		GASKET			
NA01-41-443	1				
43-028		PAD,PEDAL			
0268-43-028	1				
43-029		RUBBER,STOPPER			
B001-43-029	2				
43-030		PEDAL,BRAKE			
NA03-43-030	1				
43-041		REST,FOOT			
NA01-43-041	1				
43-061A		PIPE,PEDAL			
0866-43-062	1				
43-070		BRACKET,MASTER CYL.			
NA01-43-070A	1	BASE, (W/O AUTO CRUISE CONT.)			
NA02-43-070A	1	PKG-OPT, (W/AUTO CRUISE CONT)			
43-081A		SPRING,RETURN-BRAKE			
B092-41-081	1				
43-090		PLATE			
NA03-43-090	1				
43-099		HOLDER,PLATE			
HF23-43-099	1				
43-140		FORK,BRAKE			
1F24-43-140	1				
43-152		PIN,SNAP			

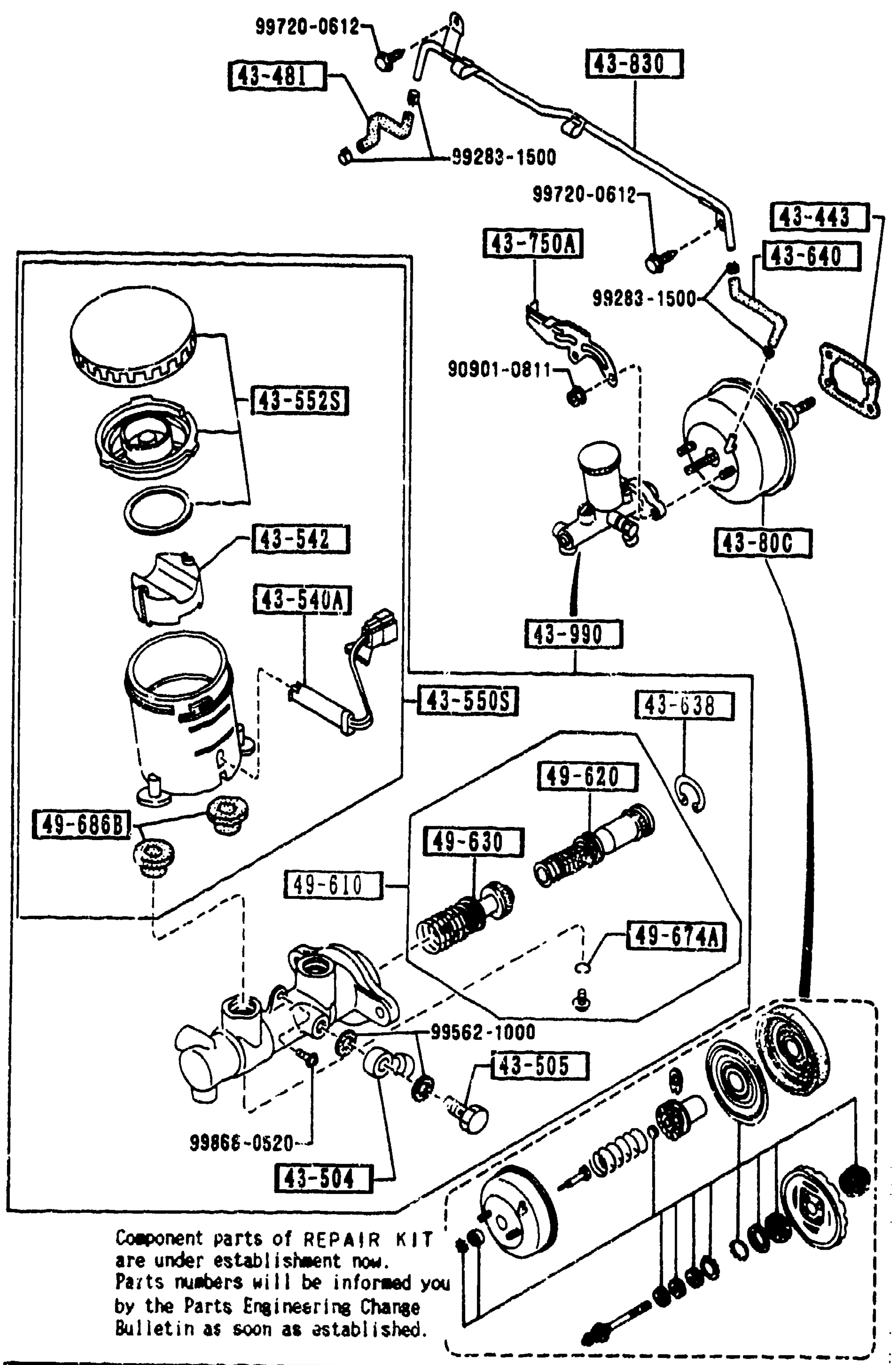
4300A BRAKE PEDALS (AUTOMATIC TRANSMISSION)


(*/AUTO CRUISE CONT)
67-210
43-070
43-029
18-660
99940-0800
(*/O AUTO CRUISE CONT.)
67-210
43-090
41-443
99940-0800
43-099
90794-0820
99811-1070
43-152
46-085
43-140
99232-06229
43-081A
99971-1000
99921-1000
43-029
46-085
43-061A
99932-06008
43-030
43-041
43-028

4300A -2 * BRAKE PEDALS (AUTOMATIC TRANSMISSION)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D D001-43-152	1				
46-085		BUSH			
1015-46-085	2				
67-210		SWITCH,LIGHT-BRAKE			
BR70-66-490A	1	PKG-OPT, (W/AUTO CRUISE CONT)			
B001-66-490A	1	BASE, (W/O AUTO CRUISE CON T.)			

4340 BRAKE MASTER CYLINDER & POWER BRAKE

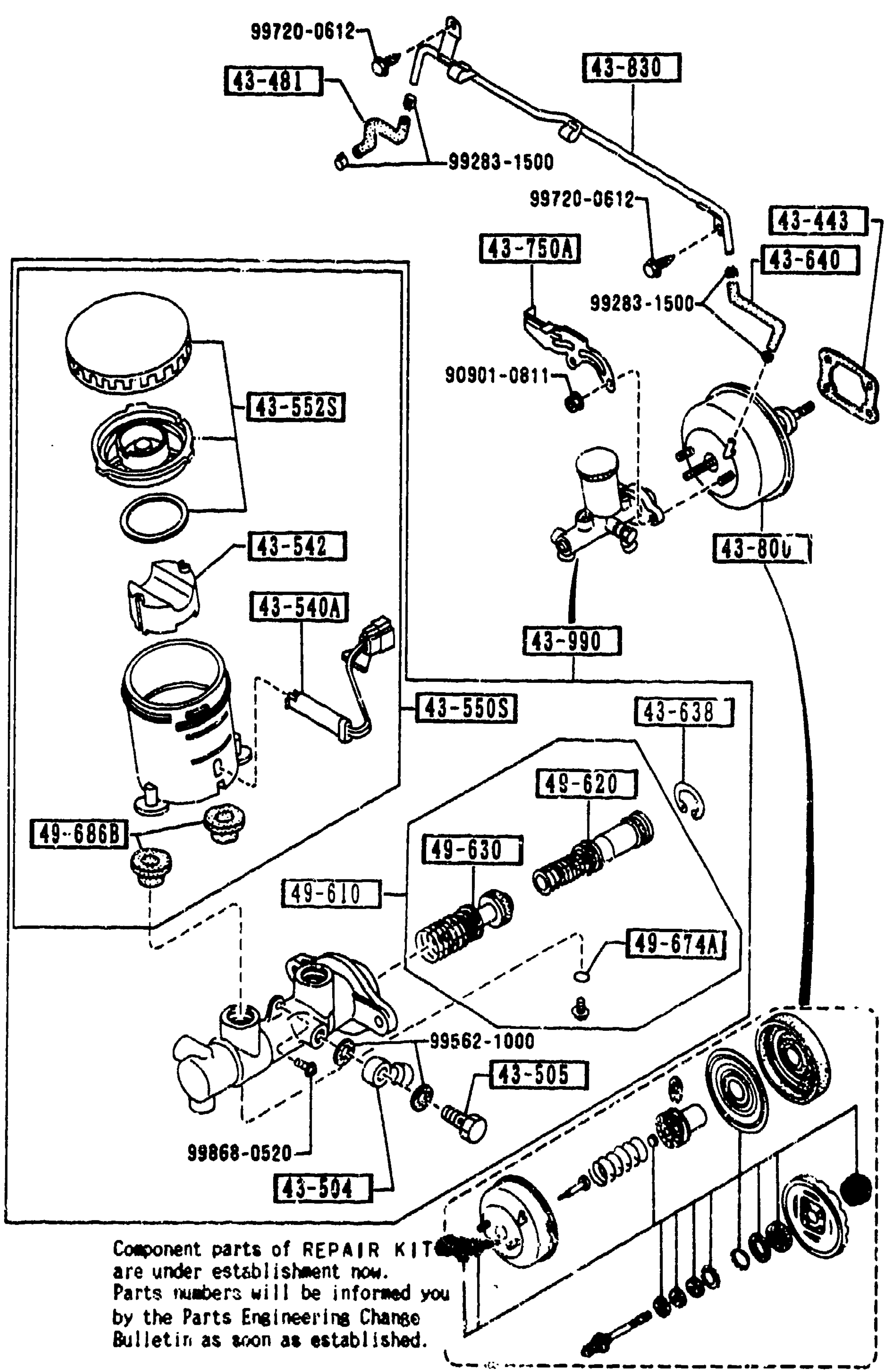

99720-0612
43-481
43-830
99283-1500
99720-0612
43-443
43-750A
43-640
99283-1500
90901-0811
43-552S
43-542
43-540A
43-80C
43-990
43-550S
43-638
49-620
49-686B
49-630
49-610
49-674A
99562-1000
43-505
99866-0520
43-504

Component parts of REPAIR KIT are under establishment now. Parts numbers will be informed you by the Parts Engineering Change Bulletin as soon as established.

4340 -1 BRAKE MASTER CYLINDER & POWER BRAKE

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
43-443 H001-43-443	1	GASKET,VAC POWER ASSIST NON ASBESTOS			
43-481 NA01-43-481	1	HOSE,VACUUM			
43-504 W023-43-504	1	JOINT,PIPE			
43-505 W023-43-505	1	BOLT,CONNECTOR			
43-540A GA97-43-540	1	SENSOR,RESERVE TANK			
43-542 3597-43-542	1	FLOAT			
43-550S B216-49-680 A (B216-49-680A)	1	TANK SET,RESERVE			-0701
B216-49-680A	1				0701-
43-552S D001-49-650 A (D001-49-650A)	1	CAP SET,RESERVE TANK			-0701
D001-49-650A	1				0701-
43-638 GA02-49-638	1	RING,RETAINING			
43-640 NA01-43-640	1	HOSE,VACUUM			
43-750A NA01-43-750	1	HOLDER,P.B.VALVE			
43-800 NA01-43-800	1	VACUUM POWER ASSIST			

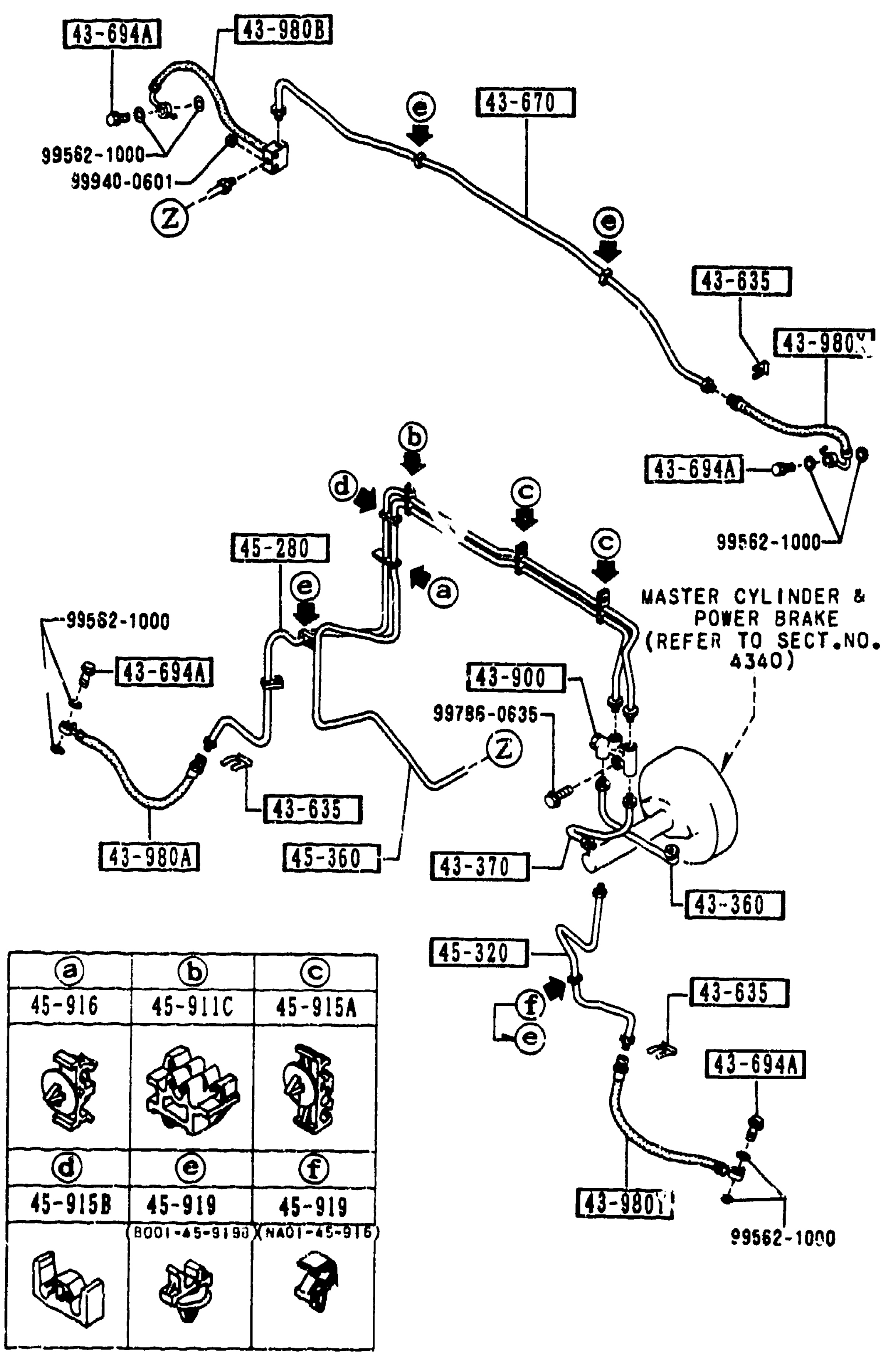
0701 NA35**-200041


99720-0612
43-481
99283-1500
43-830
99720-0612
43-443
43-750A
43-640
99283-1500
90901-0811
43-552S
43-542
43-540A
43-800
43-990
43-550S
43-638
49-620
49-686B
49-630
49-610
49-674A
99562-1000
43-505
99868-0520
43-504

Component parts of REPAIR KIT are under establishment now.
Parts numbers will be informed you by the Parts Engineering Change Bulletin as soon as established.

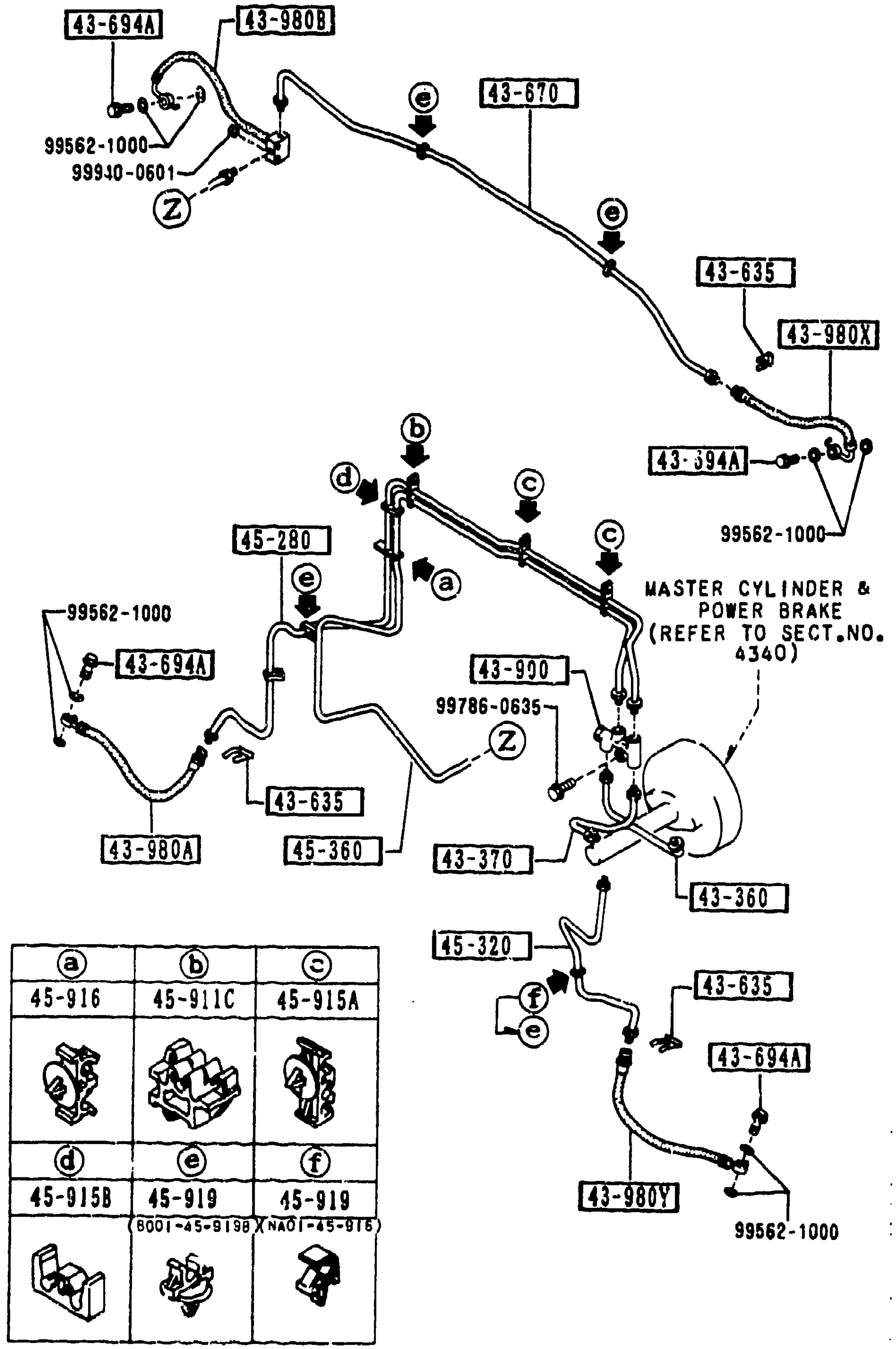
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
43-830		PIPE,VACUUM			
NA01-43-830A	1				
43-990		CYL.,TANDEM MASTER			
NA01-43-400C A (NA01-43-400D)	1				-0701
NA01-43-400D	1				0701-
49-610		PARTS KIT,INN.-BRAKE			
GJ21-43-61Z	1				-9801
BW0A-43-61Z	1				9801-
49-620		PISTON,PRIMARY			
GJ21-43-62Z	1				-9801
BW0A-43-62Z	1				9801-
49-630		PISTON,FLOATING			
BJ14-43-63Z	1				-9801
BW0A-43-63Z	1				9801-
49-674A		RING,'O'-MASTER CYL.			
99541-00403	1				
49-686B		BUSH,ELBOW JOINT			
0305-49-6863	2				

9801 NA35**-116316
0701 NA35**-200041


43-694A
43-980B
99562-1000
99940-0601
Z
e
43-670
e
43-635
43-980Y
43-694A
99562-1000
b
d
c
c
45-280
e
a
MASTER CYLINDER &
POWER BRAKE
(REFER TO SECT.NO.
4340)
99562-1000
43-694A
43-900
99786-0635
Z
43-635
43-980A
45-360
43-370
43-360
45-320
f
e
43-635
43-694A
43-980Y
99562-1000
a
b
c
45-916
45-911C
45-915A
d
e
f
45-915B
45-919
45-919
B001-45-919B
NA01-45-916

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
43-360 NA01-43-360A	1	PIPE,BRAKE			
43-370 NA01-43-370	1	PIPE,BRAKE			
43-635 W023-43-635	3	CLIP,FLEXIBLE HOSE			
43-670 NA01-43-670A	1	PIPE,BRAKE-REAR			
43-694A B001-43-694A	4	BOLT,CONNECTOR			
43-900 NA01-43-900	1	VALVE,DUAL PROPORTIO NING			
43-980A NA01-43-810A	1	HOSE(R),FLEXIBLE-FRT			
43-980B NA01-43-980	1	HOSE(R),FLEXIBLE-RR			
43-980X NA01-43-990	1	HOSE(L),FLEXIBLE-RR			
43-980Y NA01-43-820A	1	HOSE(L),FLEXIBLE-FRT			
45-280 NA01-45-280B	1	PIPE(R),BRAKE-FRONT			
45-320 NA01-45-320B	1	PIPE(L),BRAKE-FRONT			
45-360 NA01-45-360B	1	PIPE NO.2,BRAKE-REAR			
45-911C NA01-45-911	1	CLIP,PIPE			

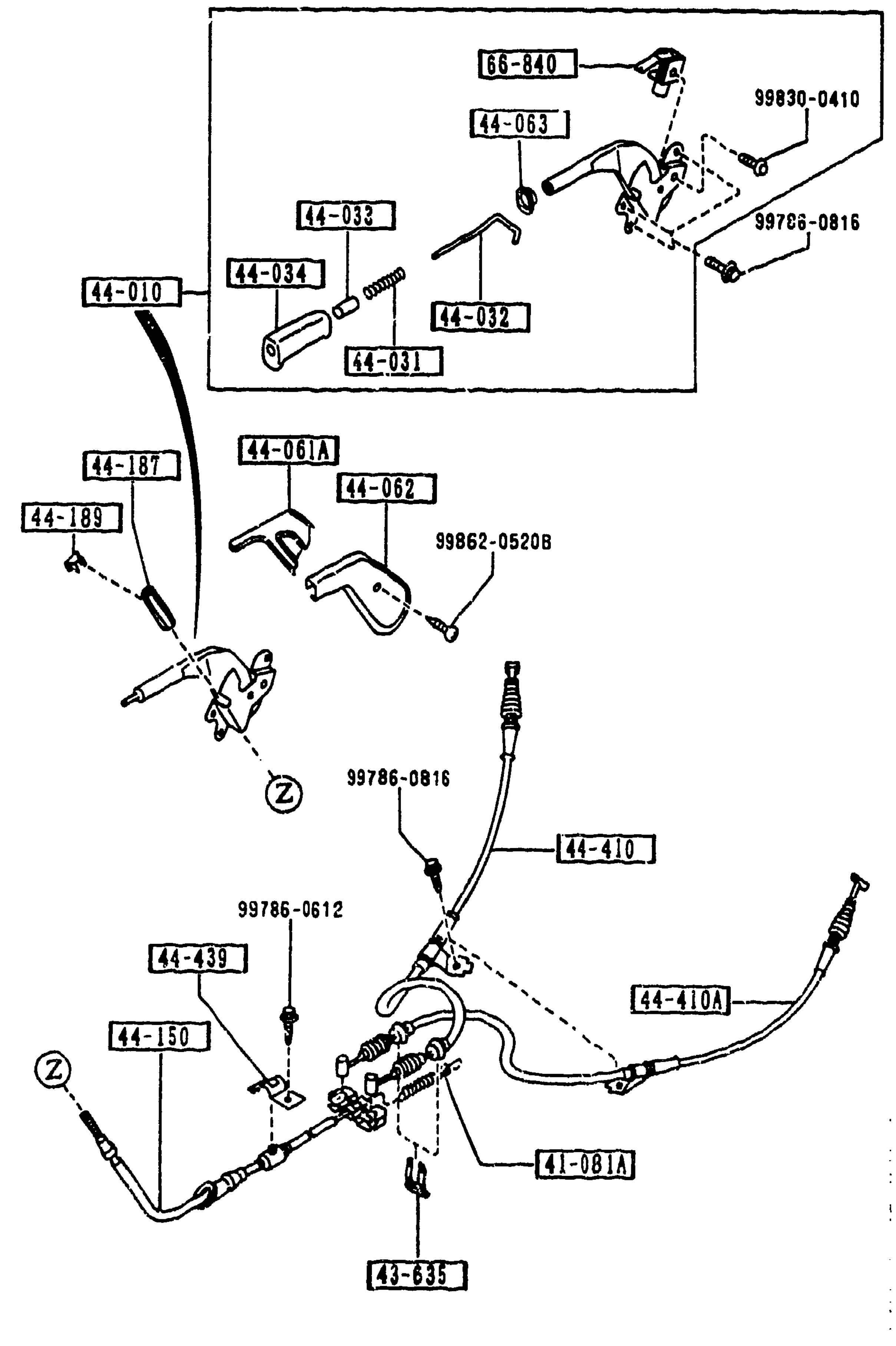
4360 BRAKE PIPINGS


43-694A
43-980B
99562-1000
99940-0601
Z
43-670
e
e
43-635
43-980X
43-694A
99562-1000
b
d
c
c
45-280
e
a
MASTER CYLINDER &
POWER BRAKE
(REFER TO SECT.NO.
4340)
99562-1000
43-694A
43-990
99786-0635
Z
43-635
43-980A
45-360
43-370
43-360
45-320
f
e
43-635
43-694A
43-980Y
99562-1000
a
45-916
b
45-911C
c
45-915A
d
45-915B
e
45-919
(B001-45-919B)
f
45-919
(NA01-45-916)

4360 -2 * BRAKE PIPINGS

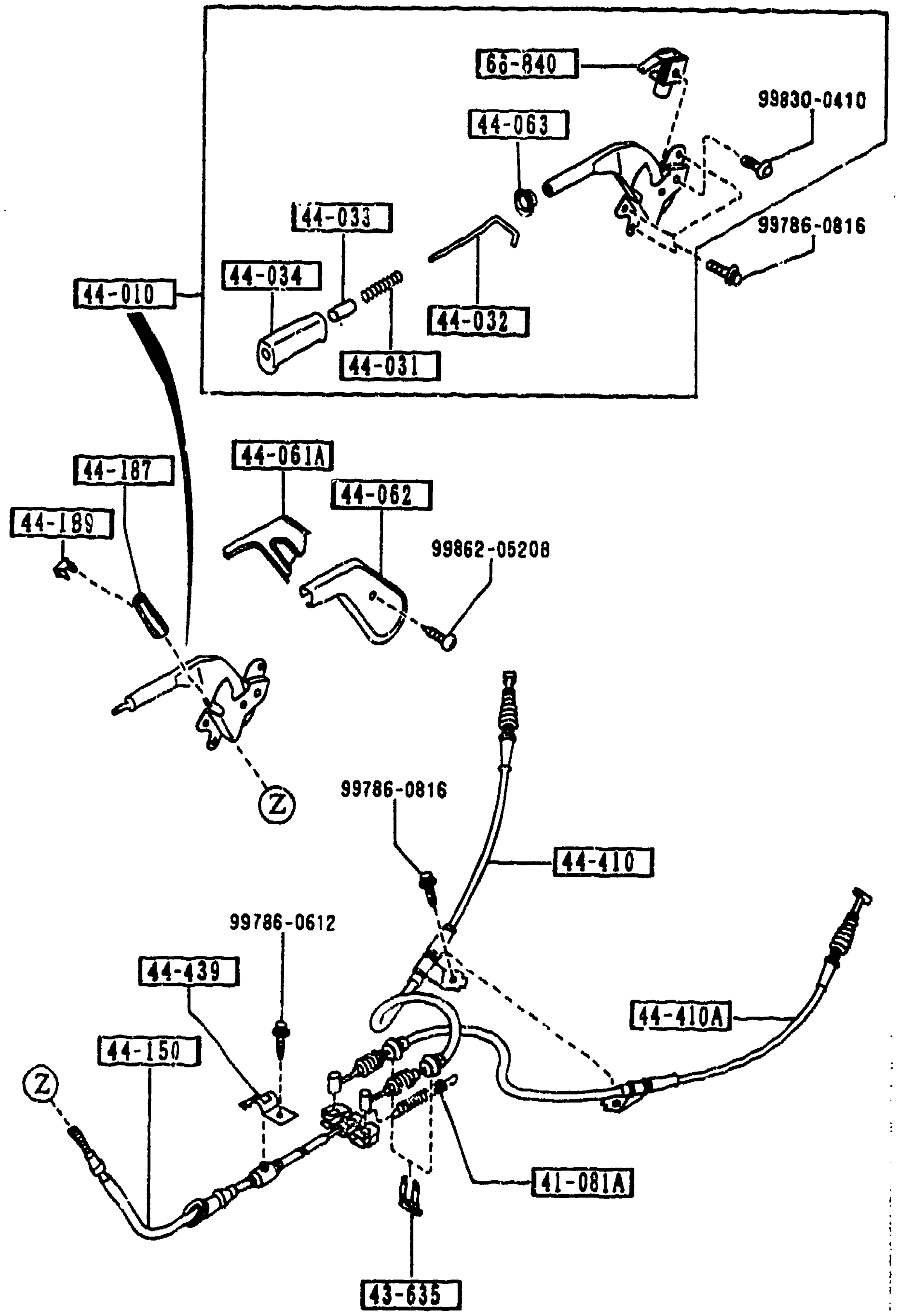
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
45-915A		HOLDER,PIPE			
B001-45-915	2				
45-915B		HOLDER,PIPE			
NA01-45-915A	1				
45-916		HOLDER,PIPE			
B001-45-916	1				
45-919		CLIP,PIPE			
NA01-45-916	1				-9801
B001-45-919B	3				-9801
B001-45-919B	4				9801-

9801 NA35**-116316


66-840
99830-0410
44-063
44-033
99786-0816
44-010
44-034
44-032
44-031
44-061A
44-187
44-062
44-189
99862-0520B
Z
99786-0816
44-410
99786-0612
44-439
44-410A
44-150
Z
41-081A
43-635

4400 -1 PARKING BRAKE SYSTEM

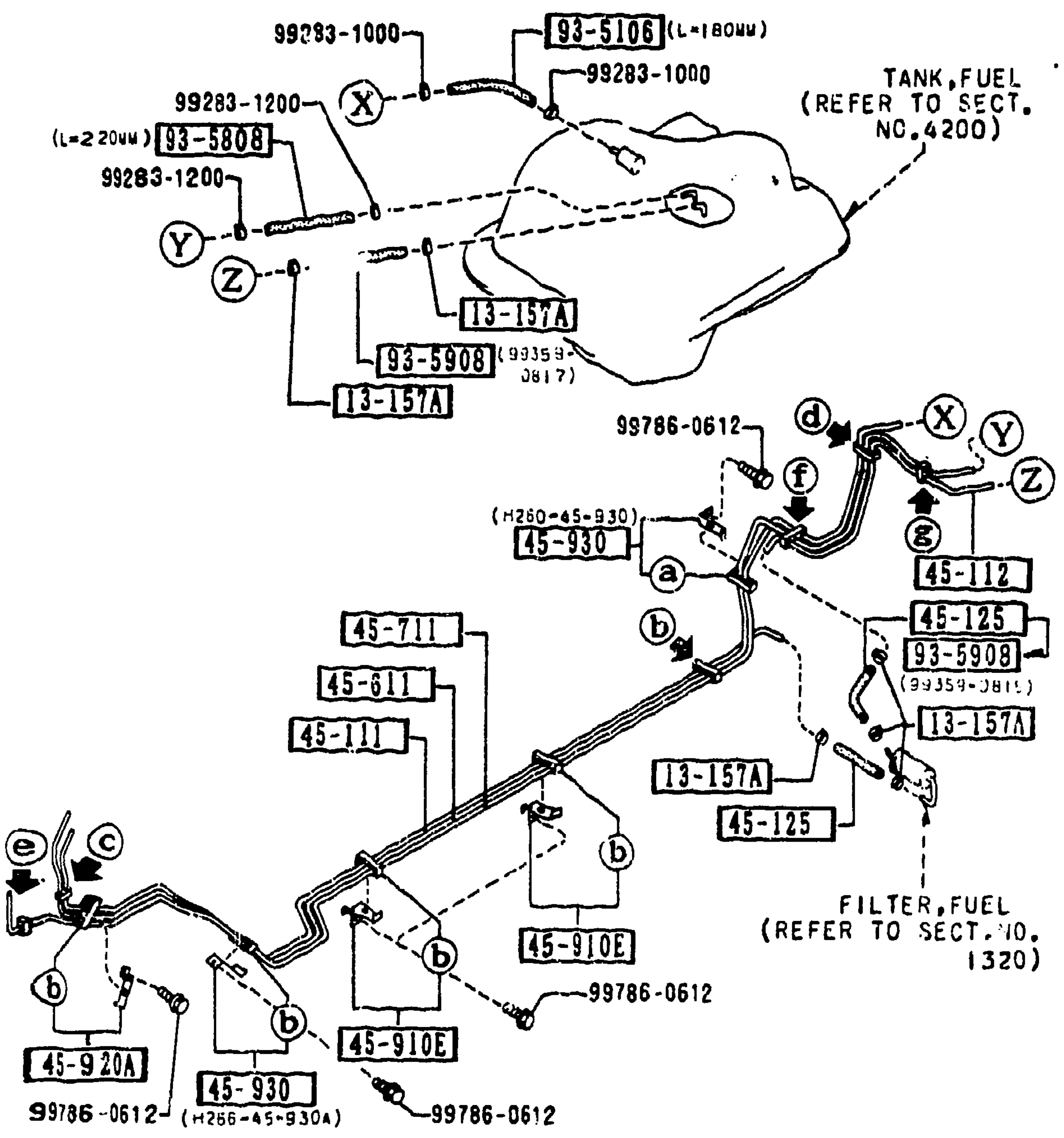
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
41-081A 0750-41-308	1	SPRING,RETURN			
43-635 W023-43-635	2	CLIP,FLEXIBLE HOSE			
44-010 NA01-44-010	1	LEVER,PARKING BRAKE			
44-031 G030-44-031	1	SPRING,PARKING REVER			
44-032 NA01-44-032	1	ROD,RELEASE			
44-033 FB01-44-033	1	BUTTON,RELEASE			
44-034 FB01-44-034	1	CAP,PARK BRAKE LEVER			
44-061A FB01-44-061B	1	COVER			
44-062 FB01-44-062A	1	COVER			
44-063 FC01-44-063	1	SPACER			
44-150 NA01-44-150B	1	CABLE,PARKING-FRT			
44-187 0866-44-187A	1	SCREW,ADJUST			
44-189 0866-44-189	1	CLIP			
44-410 NA01-44-410B	1	CABLE(R),R.-PARK.			

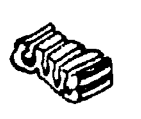
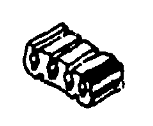
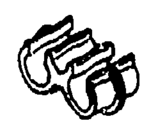
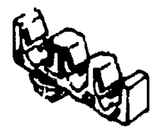
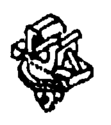
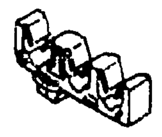
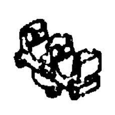

66-840
99830-0410
44-063
44-033
99786-0816
44-010
44-034
44-032
44-031
44-061A
44-187
44-062
44-189
99862-05208
Z
99786-0816
44-410
99786-0612
44-439
44-410A
44-150
Z
41-081A
43-635

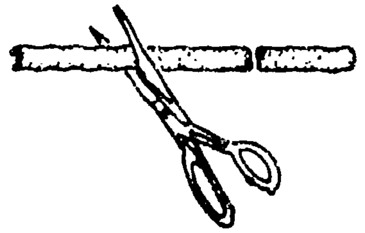
4400 -2 * PARKING BRAKE SYSTEM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
44-410A		CABLE(L),R.-PARK.			
NA01-44-420B	1				
44-439		CLIP,CABLE			
1011-44-439	1				
66-840		SWITCH,PARKING LAMP			
GJ21-66-450A	1				

4500 FUEL PIPINGS


99283-1000
93-5106 (L=180MM)
99283-1000
TANK,FUEL
(REFER TO SECT. NO.4200)
99283-1200
(L=220MM) 93-5808
99283-1200
X
Y
Z
13-157A
93-5908 (99359-0817)
13-157A
99786-0612
d
X
Y
Z
f
(H260-45-930)
45-930
a
g
45-112
45-125
93-5908
(99359-0815)
13-157A
b
45-711
45-611
45-111
13-157A
45-125
b
e
c
FILTER,FUEL
(REFER TO SECT. NO. 1320)
45-910E
b
b
99786-0612
b
45-920A
45-910E
45-930
99786-0612
(H266-45-930A)
99786-0612

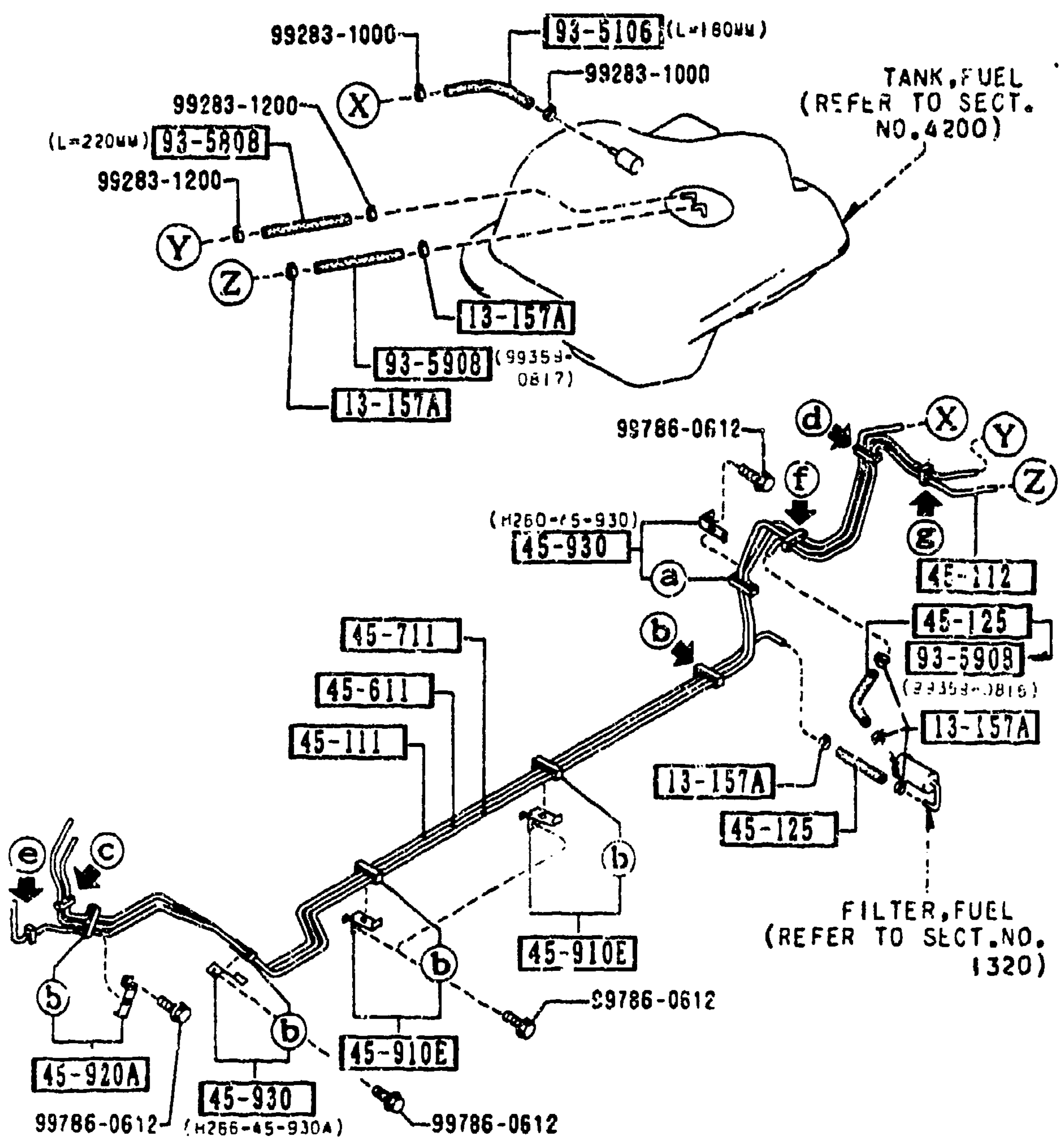
ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ
45-912D	45-912D	45-913	45-913A	45-914	45-915	45-921
 (H260-45-912)	 (H266-45-912)					

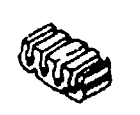
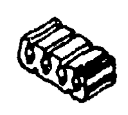
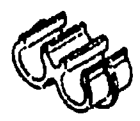
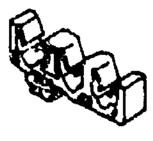
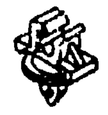
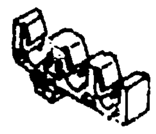
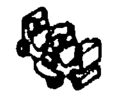
93-5106 93-5808		99351-06999	L=180MM
		99358-08999	L=220MM

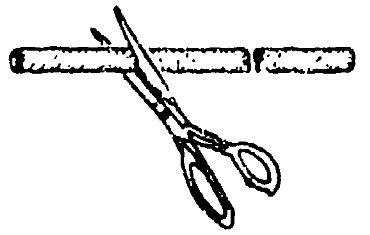
4500 -1 FUEL PIPINGS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-157A		CLIP			
8574-13-157	6				
45-111		P..E,FUEL-MAIN			
NA01-45-111	1				
45-112		PIPE,FUEL-MAIN			
NA01-45-112A	1				
45-125		HOSE,FUEL			
99359-0815	2				-9801
99359-0815	1				9801-
45-611		PIPE,FUEL-RETURN			
NA01-45-611	1				
45-711		PIPE,EVAPORATION			
NA01-45-711A	1				
45-910E		HOLDER,PIPE			
H266-45-910A	2				
45-912D		HOLDER'A'			
H260-45-912	1				
H266-45-912	5				
45-913		HOLDER,PIPE			
NA01-45-912	1				
45-913A		CLIP,PIPE			
NA01-45-913	1				
45-914		HOLDER,PIPE			
FB01-45-914	1	NIFUKO			
45-915		CLIP,PIPE			
NA01-45-914	1				
45-920A		HOLDER'B',PIPE			
H266-45-920A	1				

9801 NA35**-126490


99283-1000
93-5106 (L=180MM)
99283-1000
TANK,FUEL
(REFER TO SECT.
NO.4200)
99283-1200
X
(L=220MM) 93-5808
99283-1200
Y
Z
13-157A
93-5908 (99359-0817)
13-157A
99786-0612
d
X
Y
f
Z
(H260-45-930)
45-930
g
a
45-112
45-125
93-5908 (99359-0816)
b
45-711
45-611
13-157A
45-111
13-157A
45-125
e
c
b
FILTER,FUEL
(REFER TO SECT.NO.
1320)
b
45-910E
b
99786-0612
b
45-910E
45-920A
45-930 (H266-45-930A)
99786-0612
99786-0612

ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ
45-912D	45-912D	45-913	45-913A	45-914	45-915	45-921
 (H260-45-912)	 (H266-45-912)					

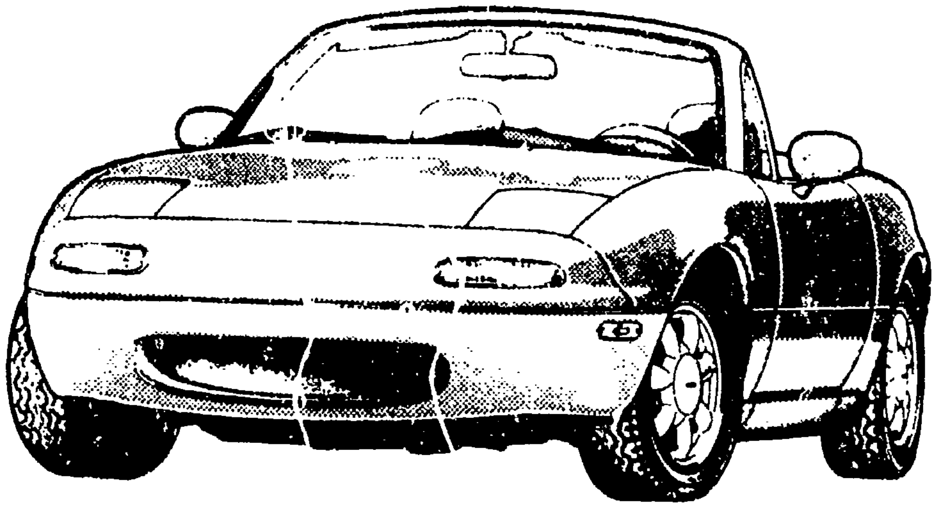
93-5106 93-5808		99351-06999	L=180MM
		99358-08999	L=220MM

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM·TO
| 45-921 |		CLIP,PIPE			
8210-45-917	1				
| 45-930 |		HOLDER'C',PIPE			
H260-45-930	1				
H266-45-930A	1				
| 93-5106 |		HOSE			
99351-06999	1				
| 93-5808 |		HOSE			
99358-08999	1				
| 93-5908 |		HOSE			
99359-0817	1				
99359-0816	1				9801-

9801 NA35**-126490

Parts Catalog

Mazda MX-5 MIATA
U.S.A.
('90)



NA35**-100001-200000

Feb.'92 (FINAL)
Catalog No. AU-NA01-07

mazda
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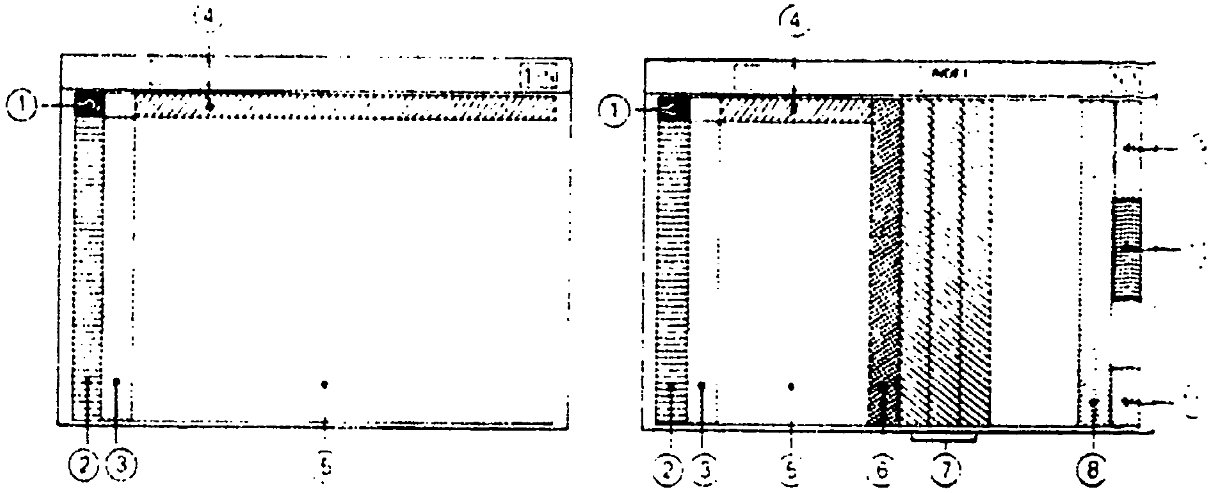
LAYOUT OF CONTENTS

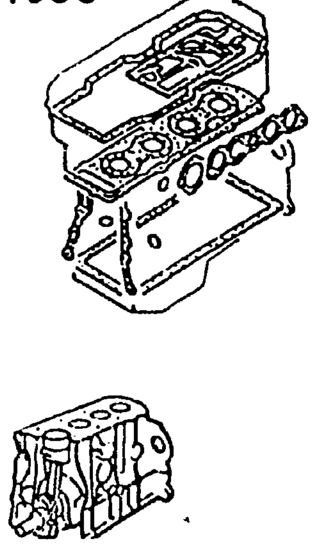
- The following is a typical example of the layout of contents on Mazda microfiche parts catalog



① · Layout of contents
② · Pictorial Index
③ · Master Section No. Index
④ · Section No. Index for the Column
⑤ · Illustration & Text
⑥ · Part No. index
⑦ · Alphabetical index
⑧ · Model Identification
⑨ · Vehicle Identification System

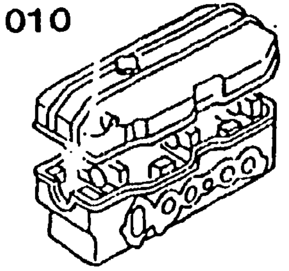
PICTORIAL INDEX

1000



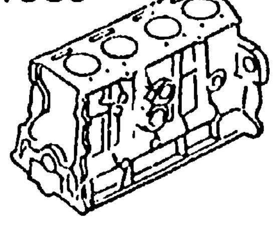
SHORT ENGINE
& GASKET SETS

1 1010



CYLINDER HEAD & COVER

2 1030



CYLINDER BLOCK

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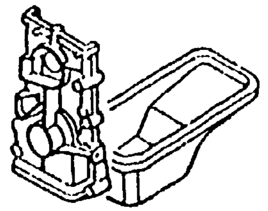
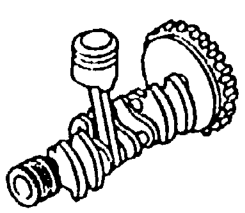


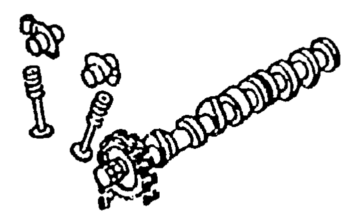
OIL PAN &
TIMING COVER

4 1100



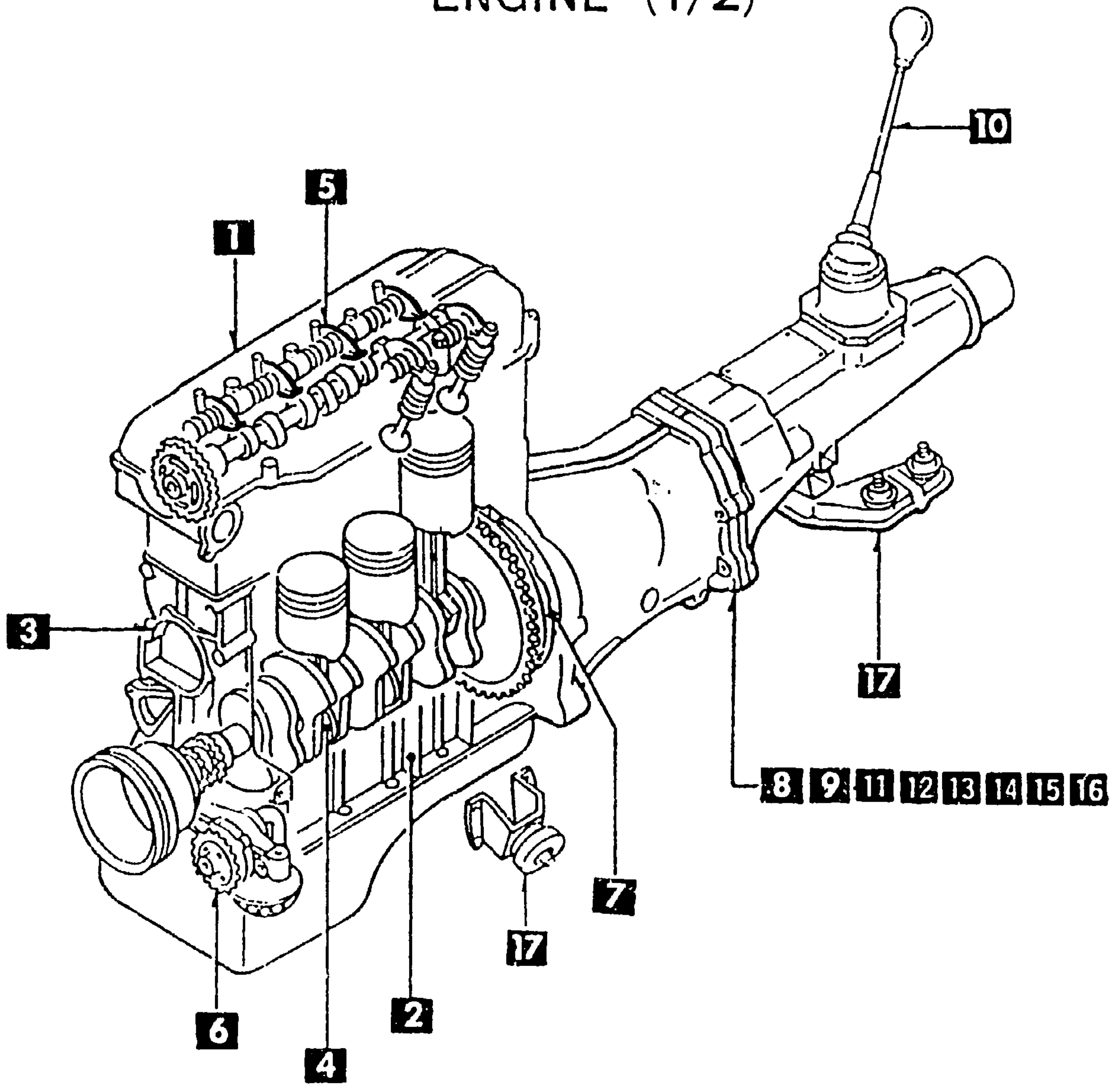
PISTON, CRANKSHAFT
& FLYWHEEL

5 1200



VALVE SYSTEM

ENGINE (1/2)



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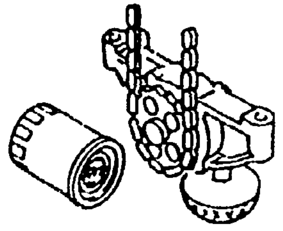
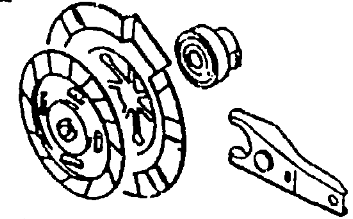


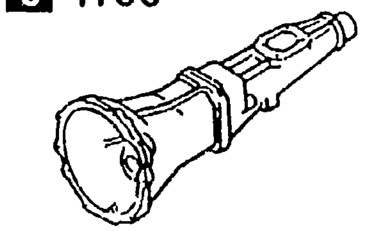
OIL PUMP & FILTER

7 1600



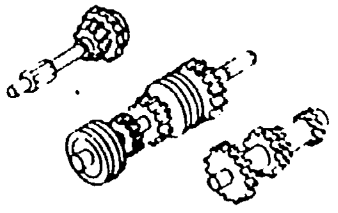
CLUTCH DISC
& COVER (MANUAL)

8 1700



TRANSMISSION CASE
(MANUAL)

9 1710



TRANSMISSION GEARS
(MANUAL)

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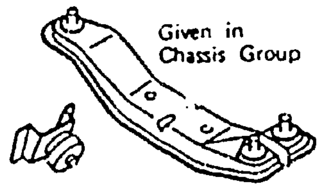
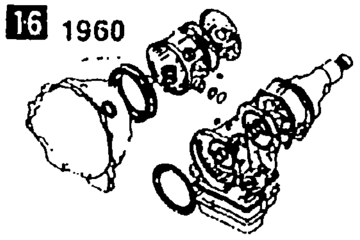


Given in
Chassis Group

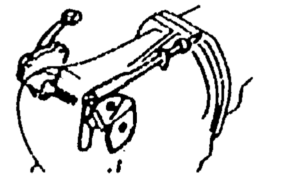
ENGINE &
T/MISSION MOUNTINGS

16 1960



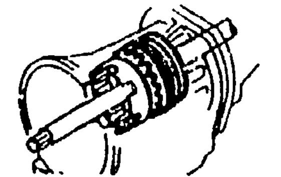
GASKET & SEAL KIT
(AUTOMATIC)

15 1950



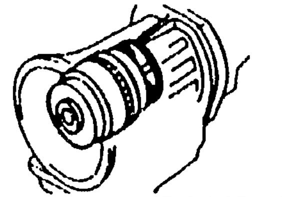
MANUAL LINKAGE SYSTEM
(AUTOMATIC)

14 1940



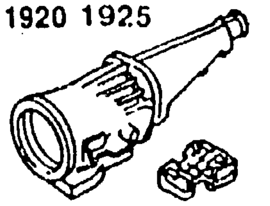
GOVERNOR, LOW
& REVERSE PISTON (AUTOMATIC)

13 1930



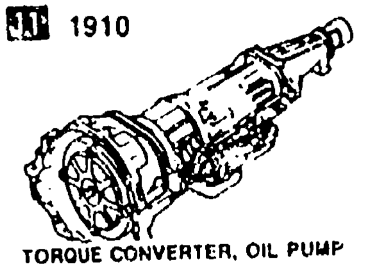
CLUTCH & PLANETARY GEARS
(AUTOMATIC)

12 1920 1925



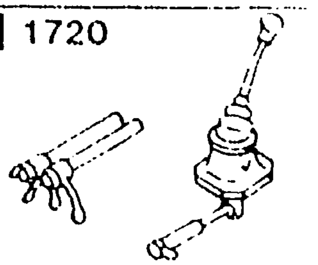
TRANSMISSION CASE
& MAIN CONTROL SYSTEM
(AUTOMATIC)

11 1910



TORQUE CONVERTER, OIL PUMP
& PIPINGS (AUTOMATIC)

10 1720

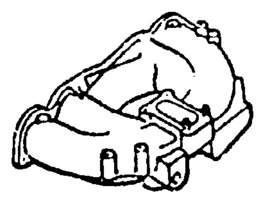


CHANGE CONTROL SYSTEM
(MANUAL)

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

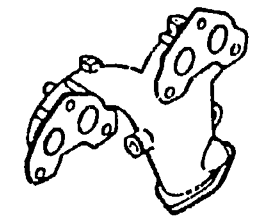
PICTORIAL INDEX

1 1300



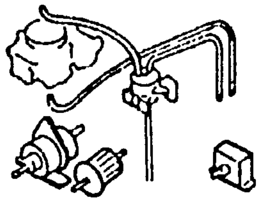
INLET MANIFOLD

2 1310



EXHAUST MANIFOLD

3 1320



FUEL SYSTEM

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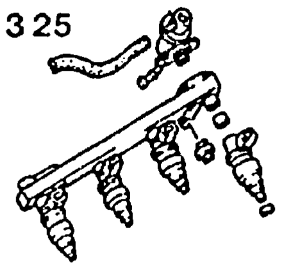

FUEL DISTRIBUTOR

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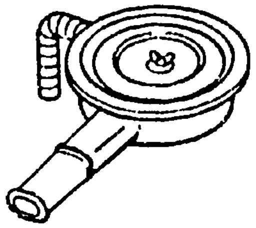

AIR CLEANER

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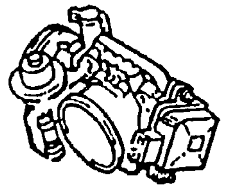

THROTTLE BODY

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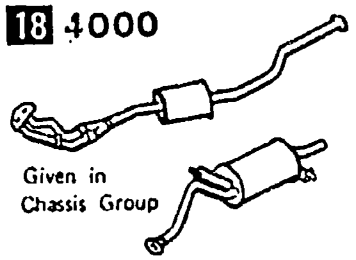
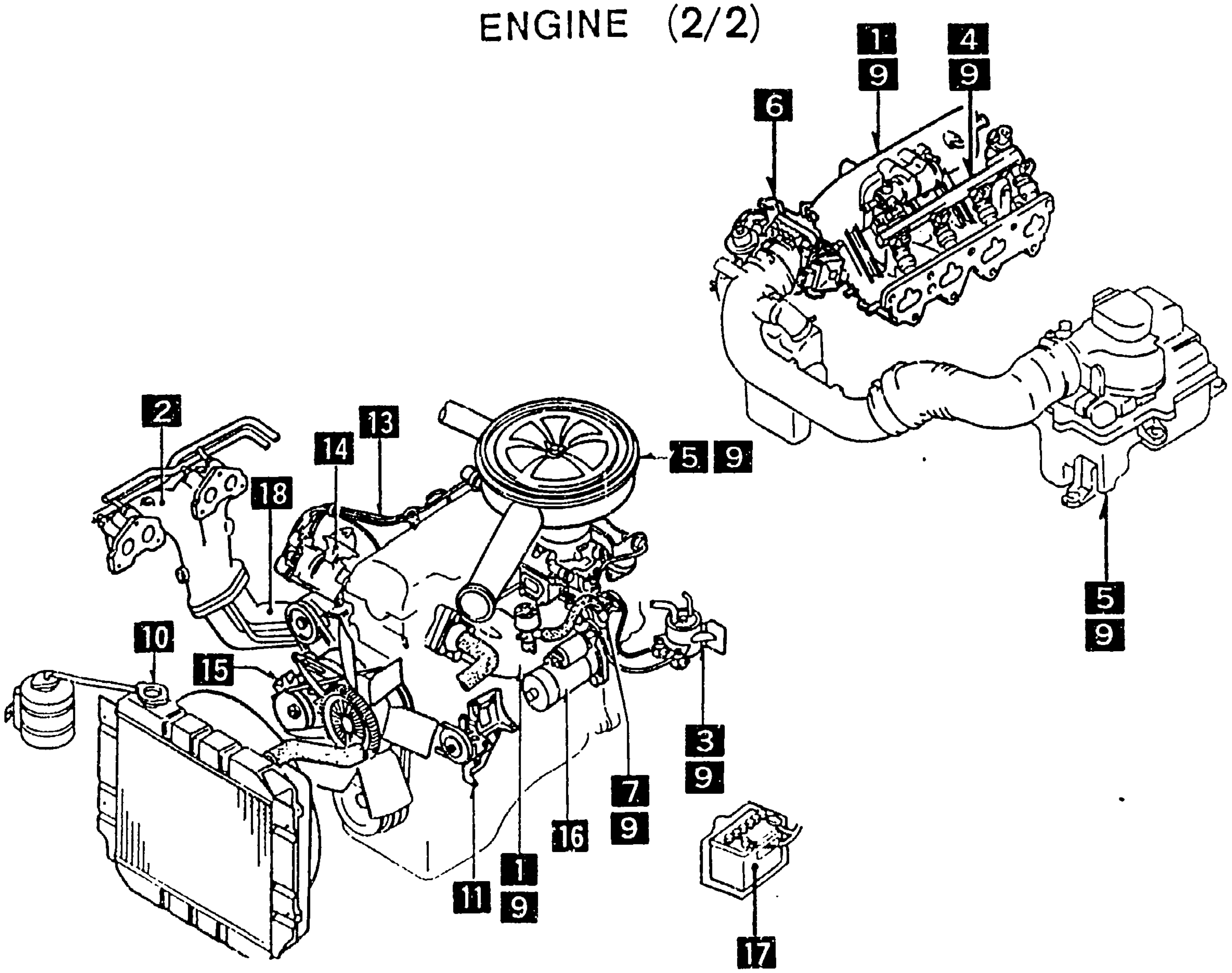


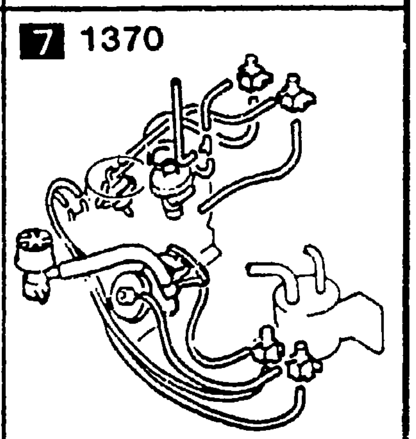
Given in Chassis Group

EX.SYSTEM

ENGINE (2/2)

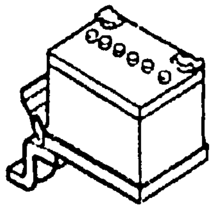


7 1370



EMISSION CONTROL SYSTEM (INLET SIDE)

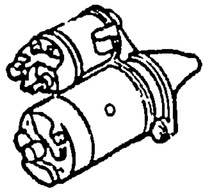
17 1850



BATTERY

8

16 1840

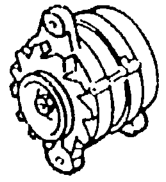


STARTER

9 1399

CAP & HOSE CLIP 'INLET & EXHAUST SIDE'

15 1830



ALTERNATOR

14

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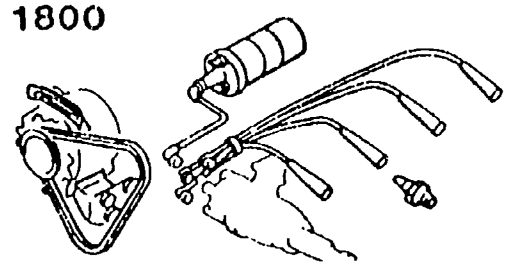
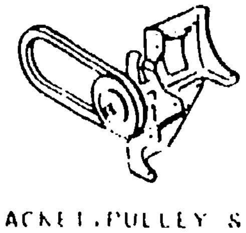


ENGINE ELECTRICAL SYSTEM

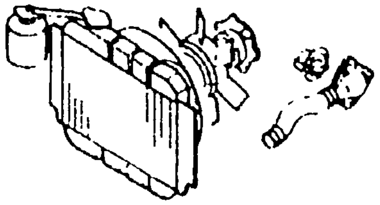
12

11 1580



BRACKET, PULLEY & BELT

10 1500



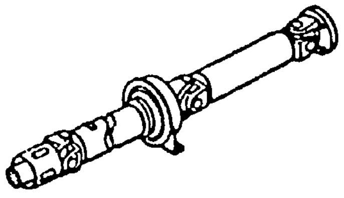
COOLING SYSTEM

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

PICTORIAL INDEX

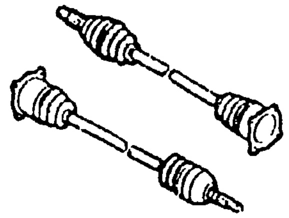
CHASSIS (1/2)

1 2505



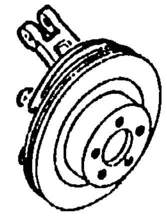
REAR PROPELLER SHAFT

2 2550



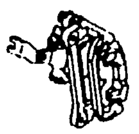
REAR DRIVE SHAFTS

2600



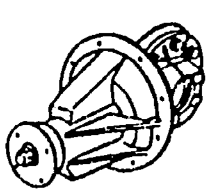
REAR AXLE

3 2610



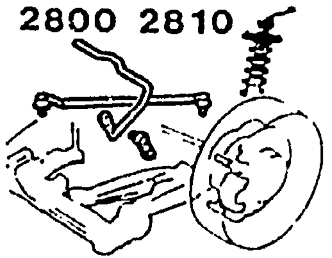
REAR BRAKE MECHANISMS

4 2710



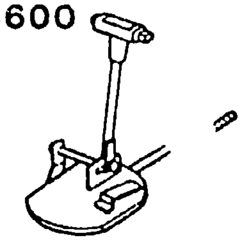
REAR DIFFERENTIALS

5 2800 2810



REAR SUSPENSION MECHANISMS
REAR STABILIZER

16 4600



CHANGE CONTROL SYSTEM
(AUTOMATIC)

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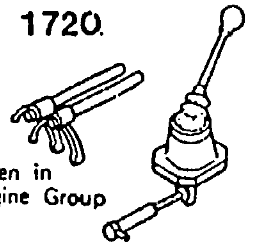
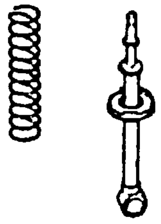


Given in
Engine Group

CHANGE CONTROL SYSTEM
(MANUAL)

2801



REAR SPRING & DAMPER

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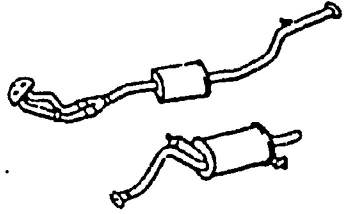

EXHAUST SYSTEM

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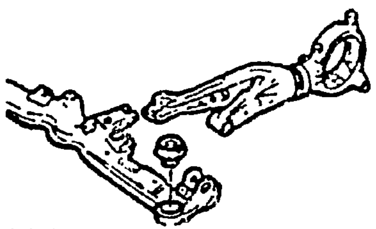
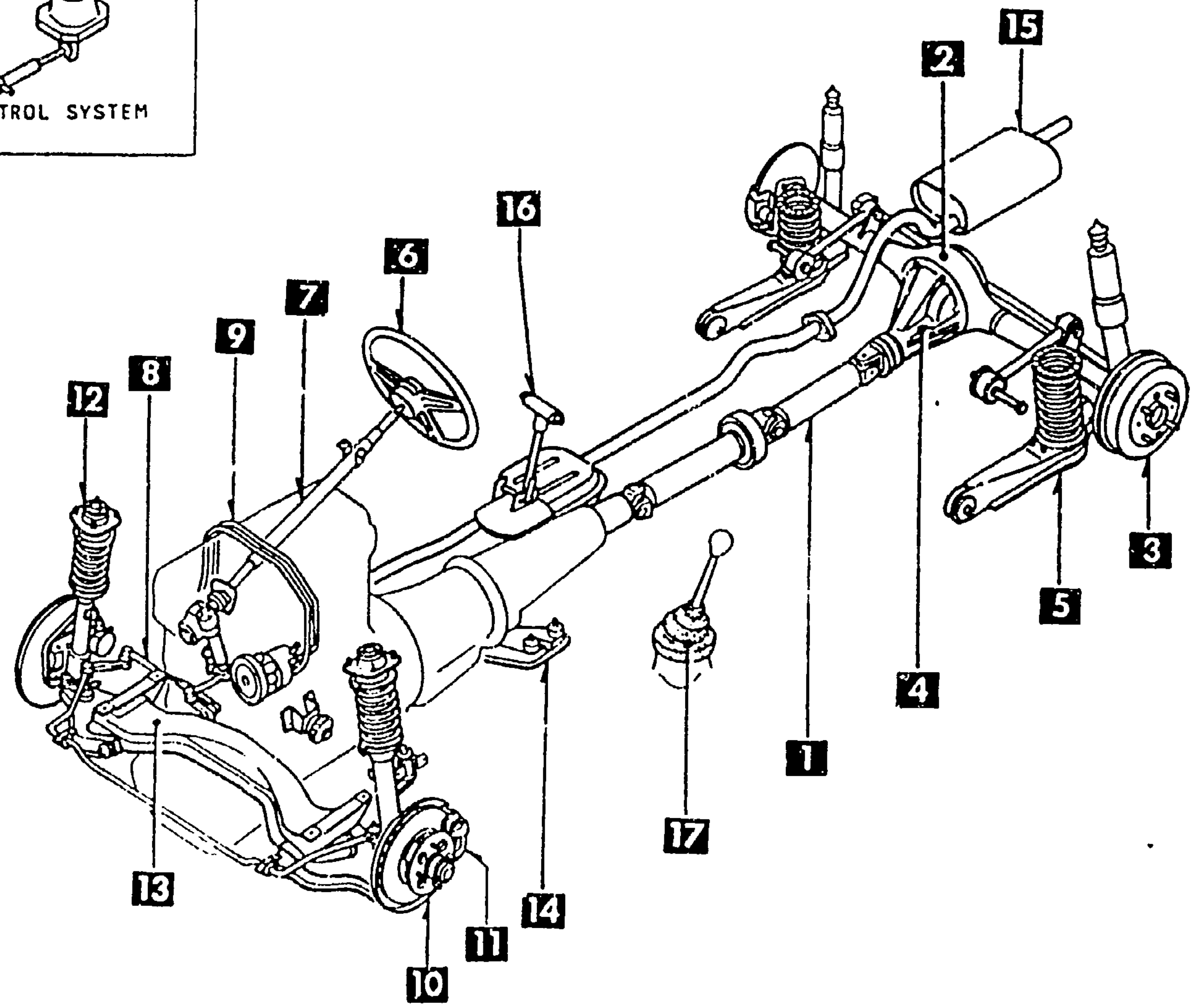


REAR LOWER ARMS & SUB FRAME



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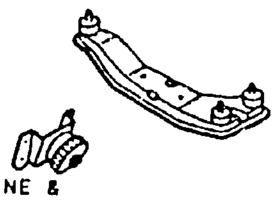
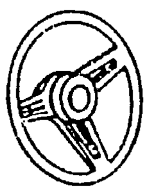


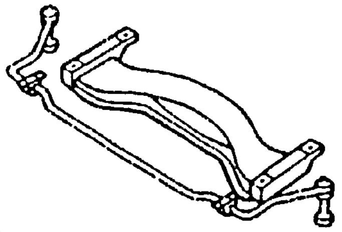
ENGINE &
T/MISSION MOUNTINGS

6 3200



STEERING WHEEL

13 3410

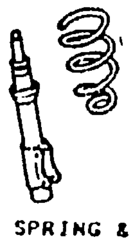


CROSSMEMBER & STABILIZER

7 3210

STEERING COLUMN &
SHAFTS

12 3401



FRONT SPRING & DAMPER

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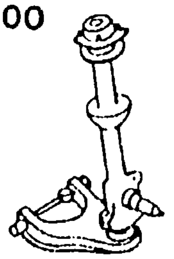
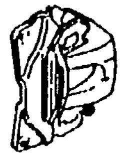


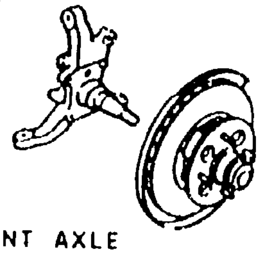
FRONT
SUSPENSION MECHANISMS

11 3310



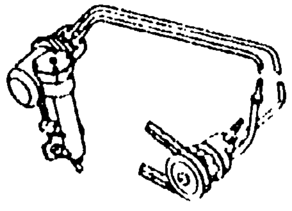
FRONT BRAKE MECHANISMS

10 3300



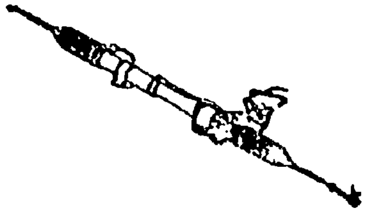
FRONT AXLE

9 3240



POWER STEERING SYSTEM

8 3220

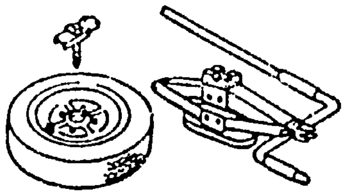


STEERING GEAR

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

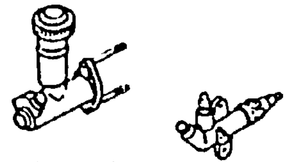
PICTORIAL INDEX

1 3700



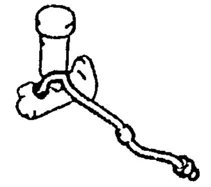
TIRES & JACK

2 4140



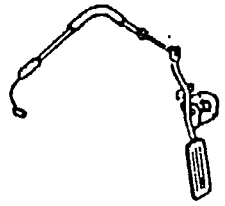
CLUTCH RELEASE
& MASTER CYLINDERS
(MANUAL TRANSMISSION)

4145



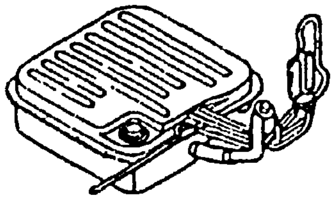
CLUTCH PIPINGS
(MANUAL TRANSMISSION)

3 4160



ACCELERATOR CONTROL SYSTEM

4 4200



FUEL TANK

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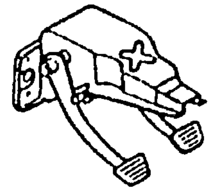
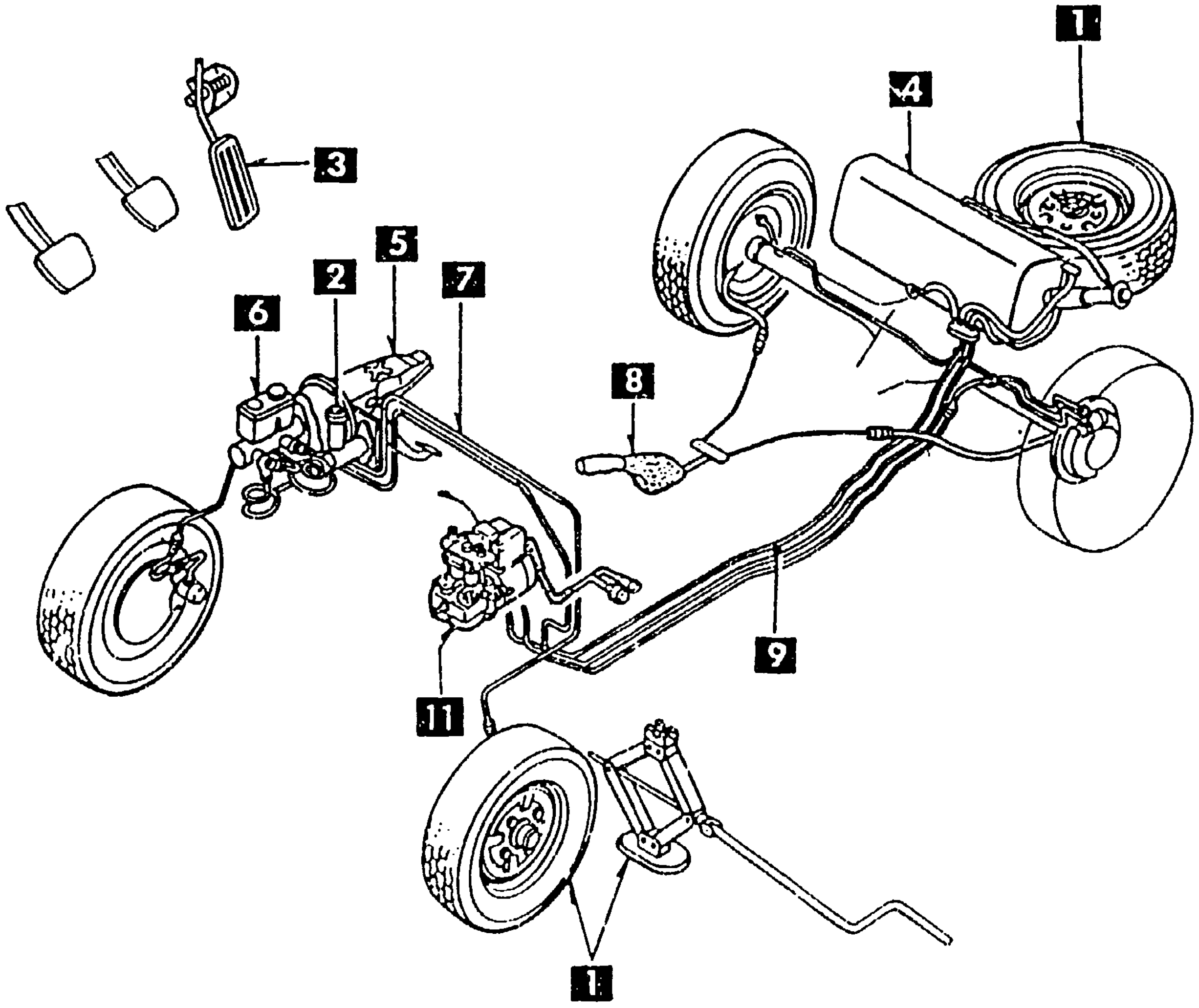


CLUTCH & BRAKE PEDALS

CHASSIS (2/2)



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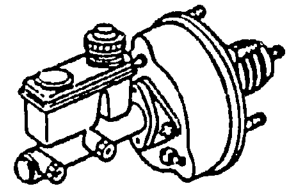
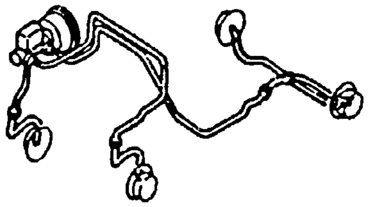


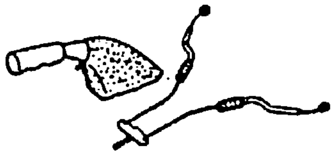
BRAKE MASTER CYLINDER
& POWER BRAKE

7 4360



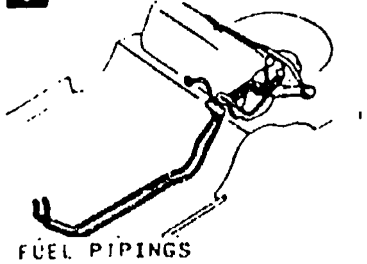
BRAKE PIPINGS

8 4400



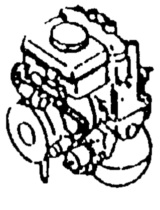
PARKING BRAKE SYSTEM

9 4500



FUEL PIPINGS

11 4370

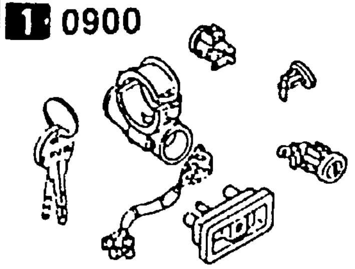


ANTILOCK BRAKE SYSTEM

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

PICTORIAL INDEX

1 0900



KEY SETS

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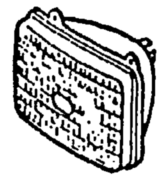

HEAD LAMPS

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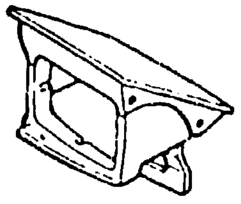

HEAD LAMP RETRACTORS

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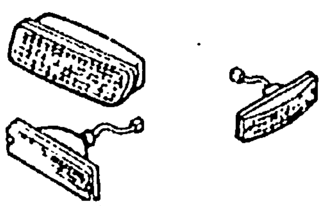
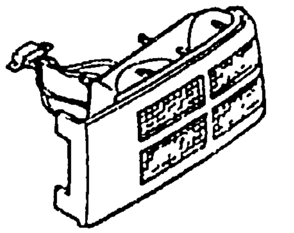


FRONT COMBINATION LAMPS

6 5110



REAR COMBINATION LAMPS

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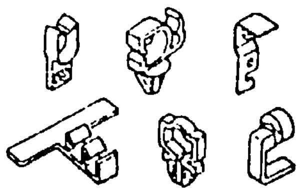
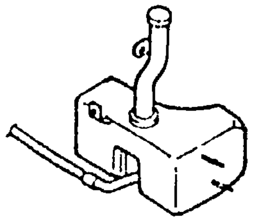


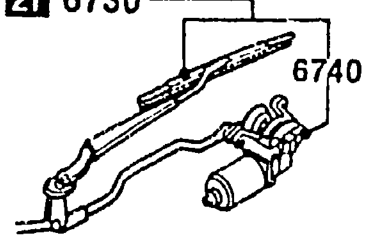
WIRING HARNESS CLAMPS

20 6720



WINDSHIELD WASHER

21 6730



WINDSHIELD WIPERS

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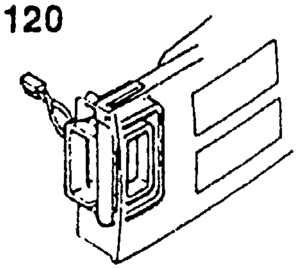

LICENSE LAMPS

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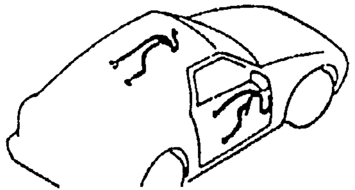
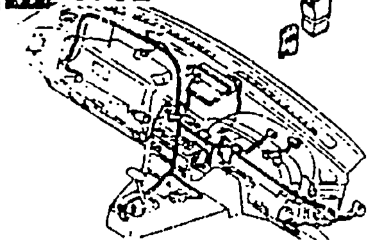


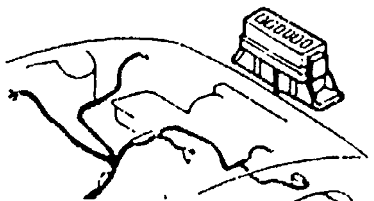
WIRING HARNESSES
(DOOR, FLOOR/CEILING)

17 6702



WIRING HARNESSES (DASHBOARD)

16 6701



WIRING HARNESSES
(ENGINE & T/MISSION)

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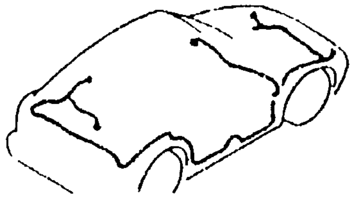
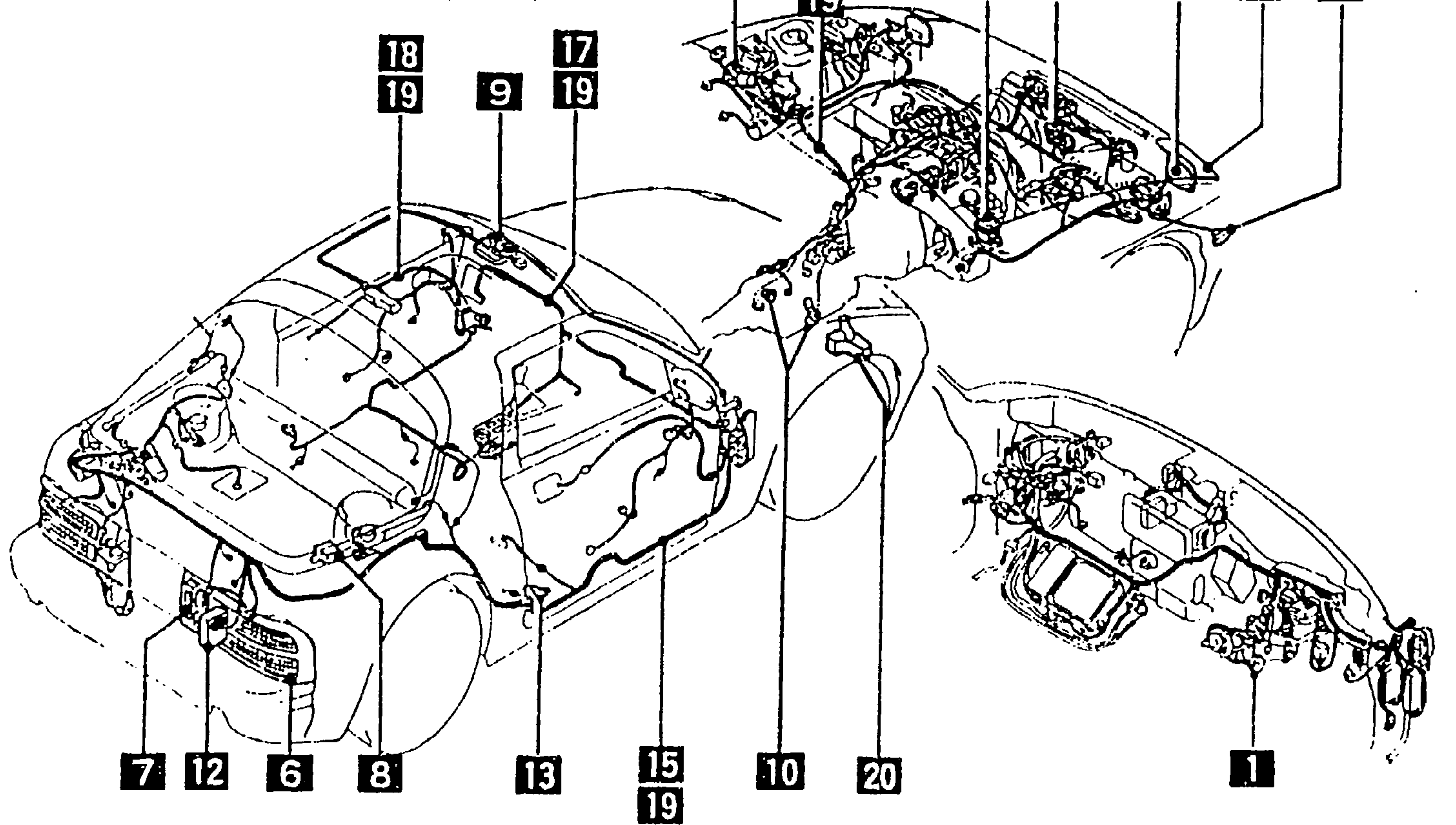


WIRING HARNESSES
(FRONT & REAR)

BODY (1/4)



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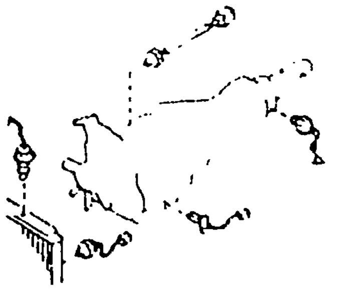

SWITCHES & RELAYS (ENGINE)

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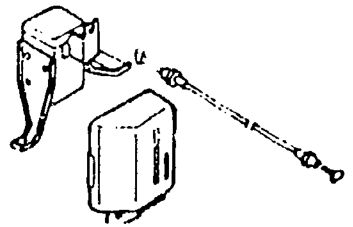

AUTO CRUISE CONTROL SYSTEM

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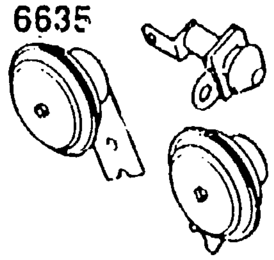

DOOR SWITCH & HORNS

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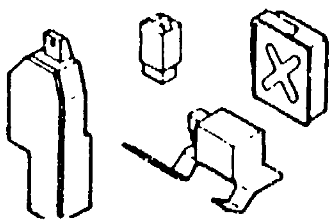

RELAYS & UNIT (BODY)

11

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

PICTORIAL INDEX

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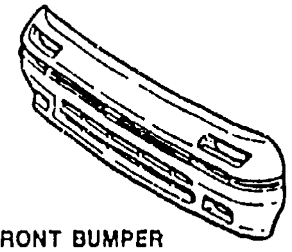
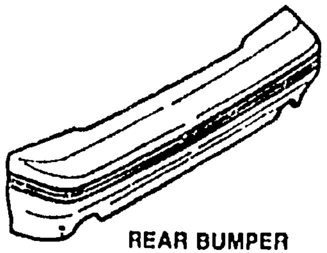


FRONT BUMPER

2

3 5010



REAR BUMPER

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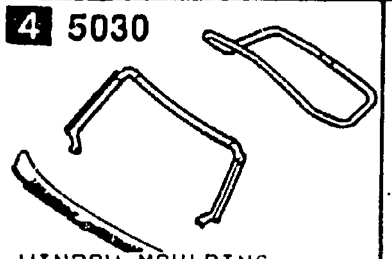
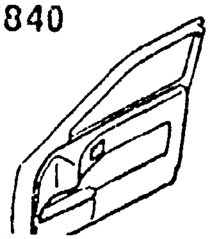


WINDOW MOULDING & COWL GRILLES

5

6

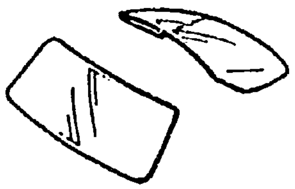
20 5840



FRONT DOOR TRIMS & RELATED PARTS

21

22 6300



WINDOW GLASSES

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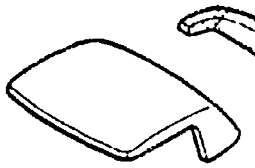
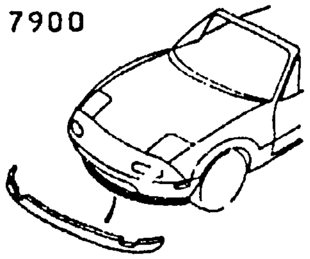


SUNROOF

24 7900



ACCESSORIES

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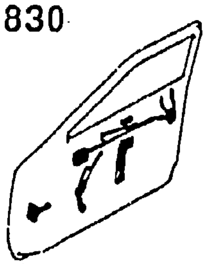
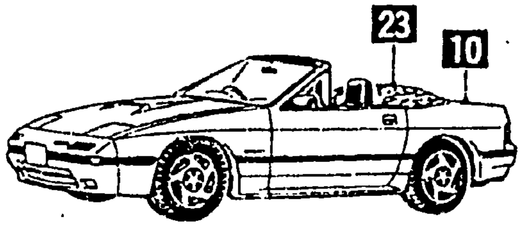
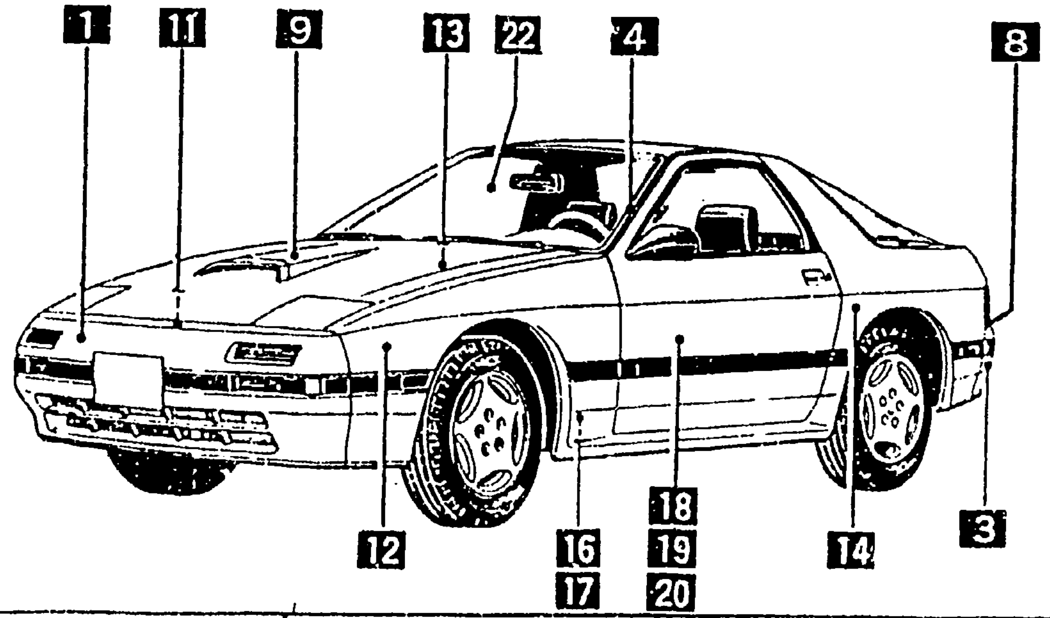


FRONT DOOR MECHANISMS

BODY (2/4)





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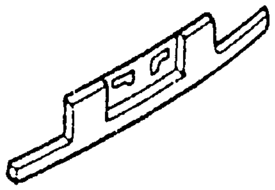

REAR FINISHER

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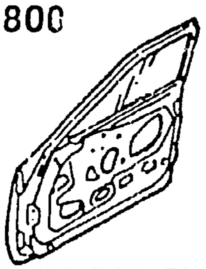
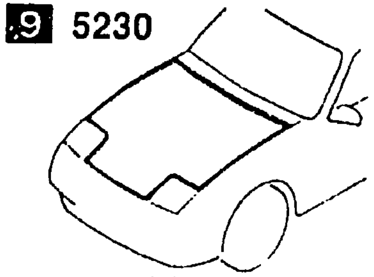


FRONT DOORS

9 5230



BONNET

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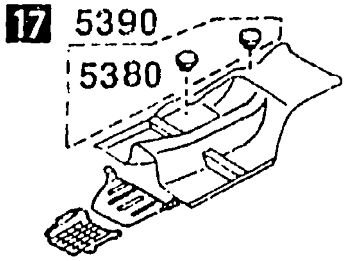

FLOOR ATTACHMENTS

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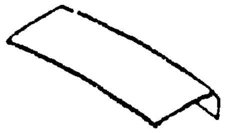

TRUNK LID

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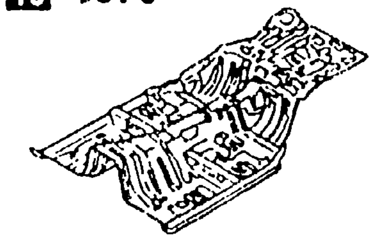
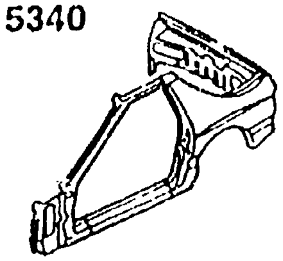


BODY PANELS (FLOOR)

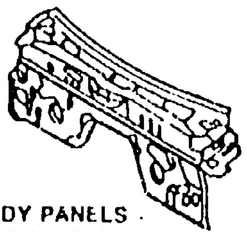
15

14 5340



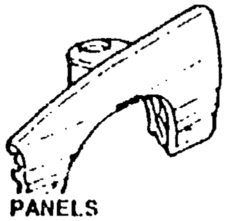
BODY PANELS (SIDE)

13 5330



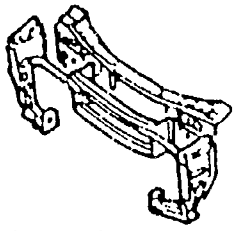
BODY PANELS (DASH & COWL PANEL)

12 5320



BODY PANELS (FENDER & WHEEL APRON)

11 5310



BODY PANELS (FRONT)

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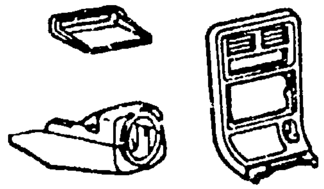

DASHBOARD EQUIPMENTS

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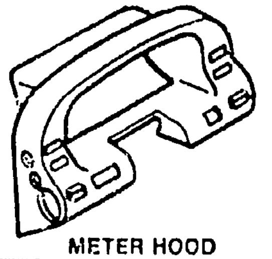

METER HOOD

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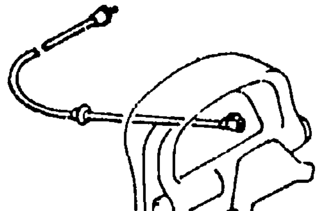

SPEEDOMETER CABLE

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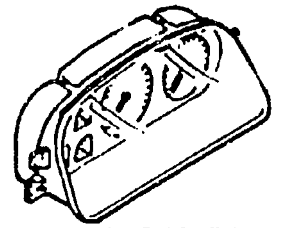

METER COMPONENTS

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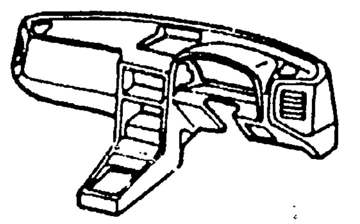

DASHBOARD & RELATED PARTS

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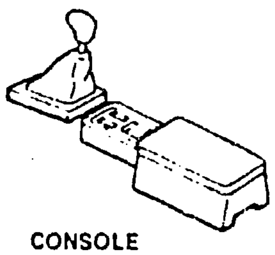
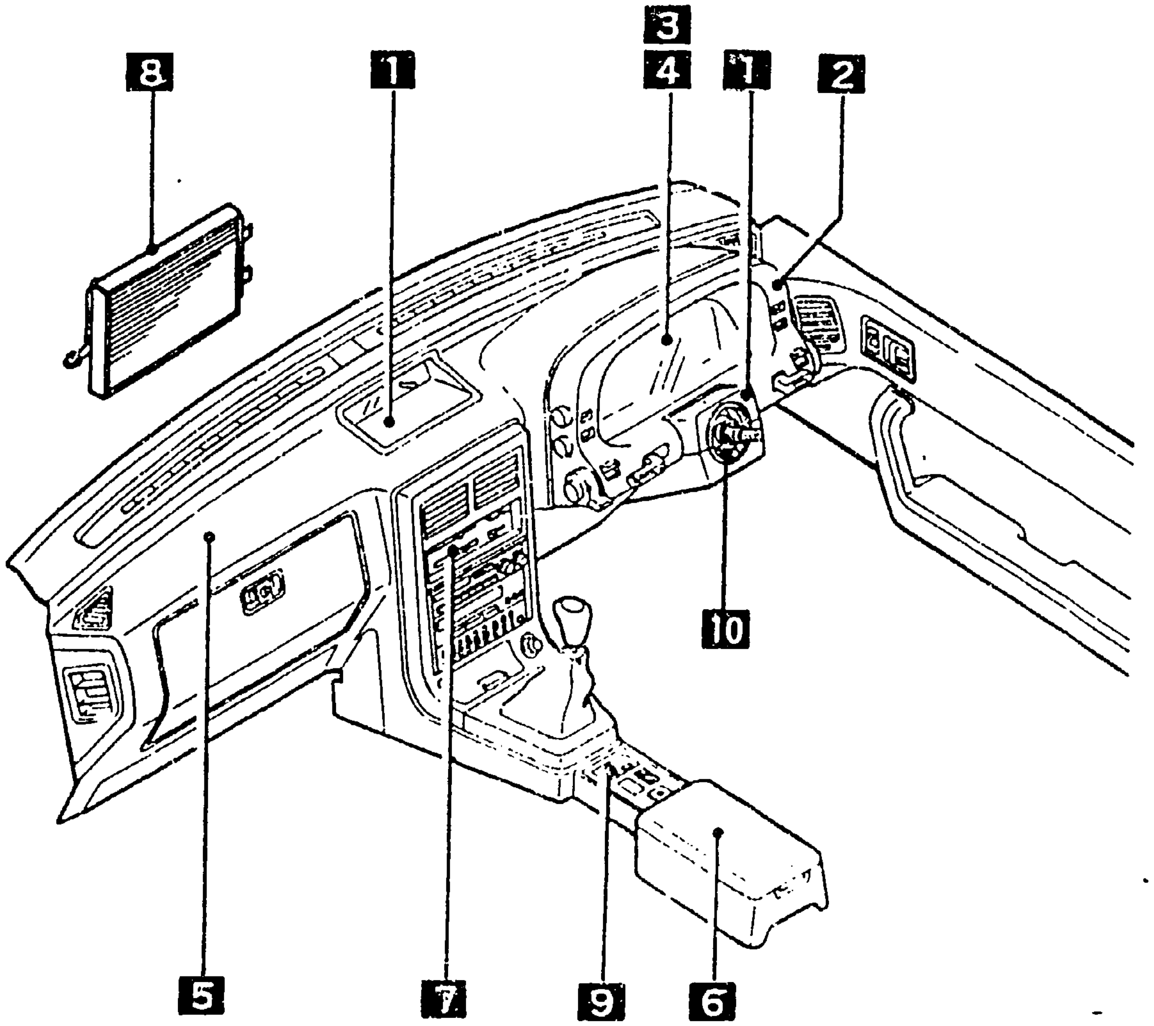


CONSOLE

BODY (3/4)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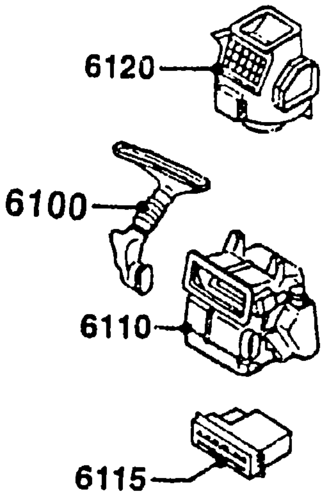
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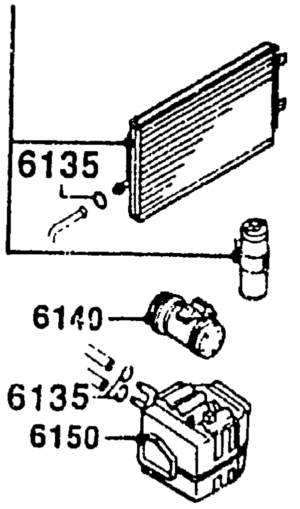
HEATER

8 6130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AIR CONDITIONER

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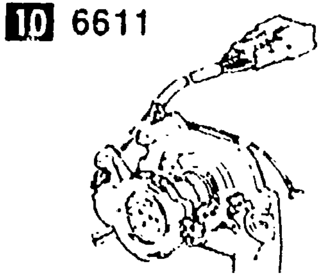

COMBINATION SWITCH

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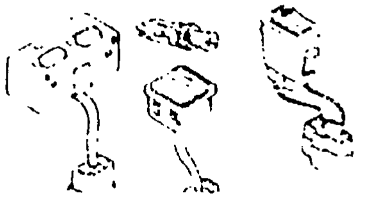

DASHBOARD SWITCHES

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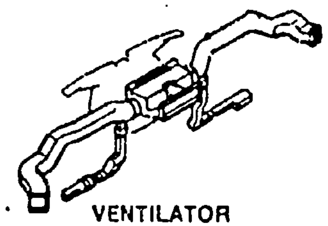

VENTILATOR

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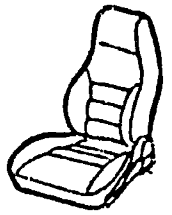

SEATS

3

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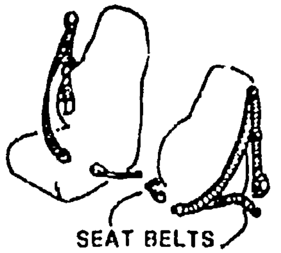

SEAT BELTS

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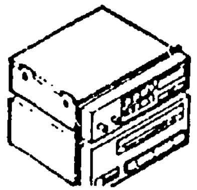
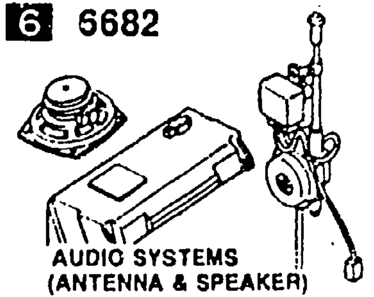


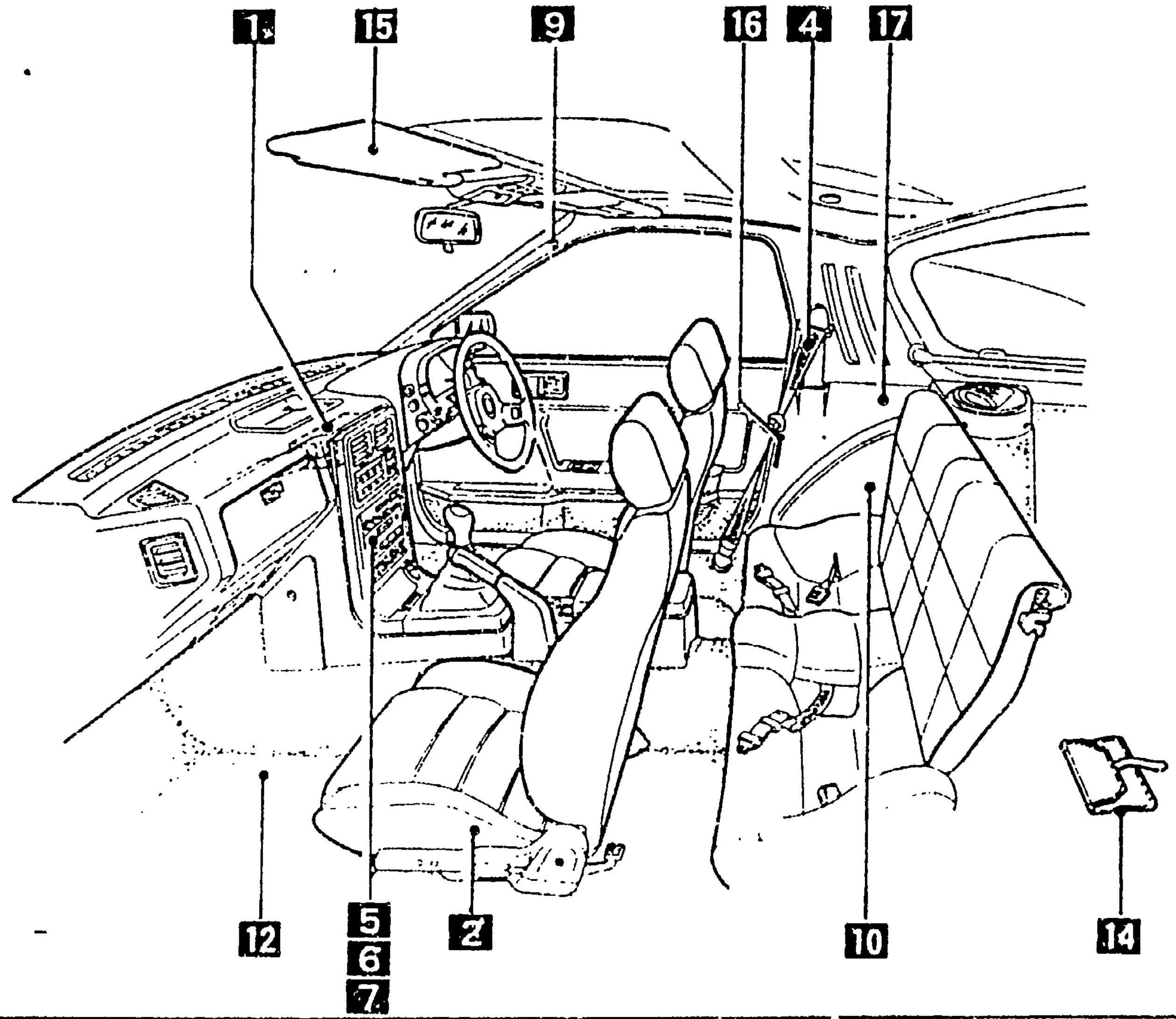
AUDIO SYSTEMS
(RADIO & TAPE DECK)

6 6682

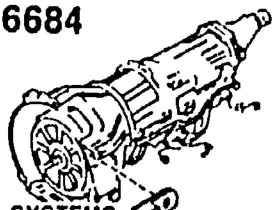


AUDIO SYSTEMS
(ANTENNA & SPEAKER)

BODY (4/4)



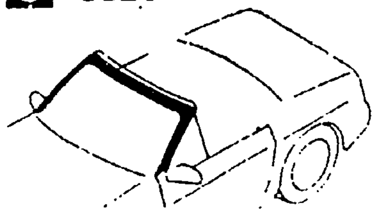
7 6684



AUDIO SYSTEMS
(NOISE SUPPRESSOR &
EARTH CORD)

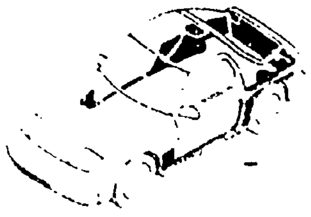
8

9 6820



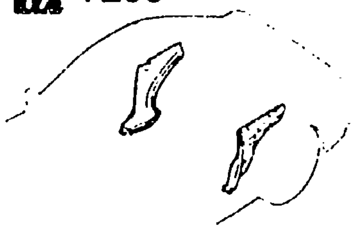
FRONT HEADER TRIM
& PILLAR TRIMS

10 6840



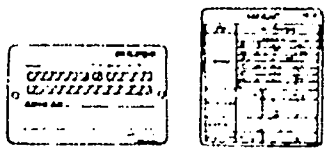
TRIMS & SCUFF PLATES

17 7250



REAR WINDOW GLASSES & TRIMS

16 6930



CAUTION PLATES & LABELS

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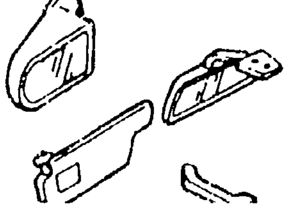
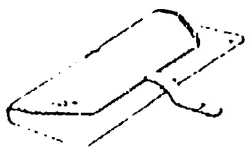


VISORS, ASSIST HANDLES &
MIRRORS

14 6870



SERVICE TOOLS

13

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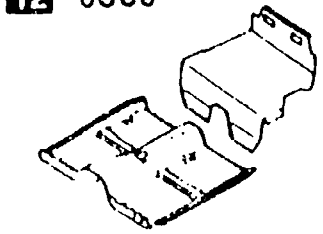

FLOOR MATS & PADS

11

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-I03	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON,CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-I04	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET,PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-I08	1930	CLUTCHES & PLANETARY GEARS (AUTOMATIC)						
1-D09	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMATIC)						
1-I09	1960	GASKET & SEAL KIT (AUTOMATIC)						

SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM			
1-D11	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM (AT)			
1-F11	2610	REAR BRAKE MECHANISMS						
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-D12	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-I12	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-I13	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-C14	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-D15	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMISSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-I15	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						

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SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET,PIPING			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)			
2-M05	5103	HEAD LAMP RETRACTORS	2-N12	6150	COOLING UNIT (AIR CONDITIONER)			
2-D06	5105	FRONT COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
2-F06	5110	REAR COMBINATION LAMPS	2-D13	6330	SUNROOF			
2-I06	5120	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-J06	5180	REAR FINISHER	2-D14	6610	DASHBOARD SWITCHES			
2-L06	5230	BONNET	2-E14	6611	COMBINATION SWITCH			
2-N06	5260	TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)			
2-D07	5310	BODY PANELS (FRONT)	2-G14	6635	DOOR SWITCH & HORNS			
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL)	2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)			
2-I07	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)			
2-C08	5370	BODY PANELS (FLOOR)	2-L14	6700	WIRING HARNESSES(FRONT & REAR)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)	2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)			
2-G08	5390	FLOOR ATTACHMENTS	2-D15	6702	WIRING HARNESSES(DASHBOARD)			
2-C09	5500	DASHBOARD EQUIPMENTS	2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)			
2-E09	5520	METER HOOD	2-F15	6704	WIRING HARNESS CLAMPS			
2-F09	5530	SPEEDOMETER CABLE	2-I15	6720	WINDSHIELD WASHER			
2-G09	5540	METER COMPONENTS	2-K15	6730	WINDSHIELD WIPERS			
2-I09	5560	DASHBOARD & RELATED PARTS	2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)			
2-L09	5570	CONSOLE	2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS			
2-C10	5580	VENTILATOR	2-C16	6840	TRIMS & SCUFF PLATES			
2-D10	5700	SEATS	2-E16	6860	FLOOR MATS & PADS			
2-K10	5790	SEAT BELTS	2-G16	6870	SERVICE TOOLS			
2-L10	5800	FRONT DOORS	2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS			
2-C11	5830	FRONT DOOR MECHANISMS	2-J16	6930	CAUTION PLATES & LABELS			
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS	2-L16	7250	QUARTER WINDOW & TRIMS			
2-C12	6100	HEATER						
2-D12	6110	HEATER UNIT COMPONENTS						

SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM			
1-D11	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM (AT)			
1-F11	2610	REAR BRAKE MECHANISMS						
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-D12	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-I12	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-I13	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-C14	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-D15	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMISSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-I15	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						

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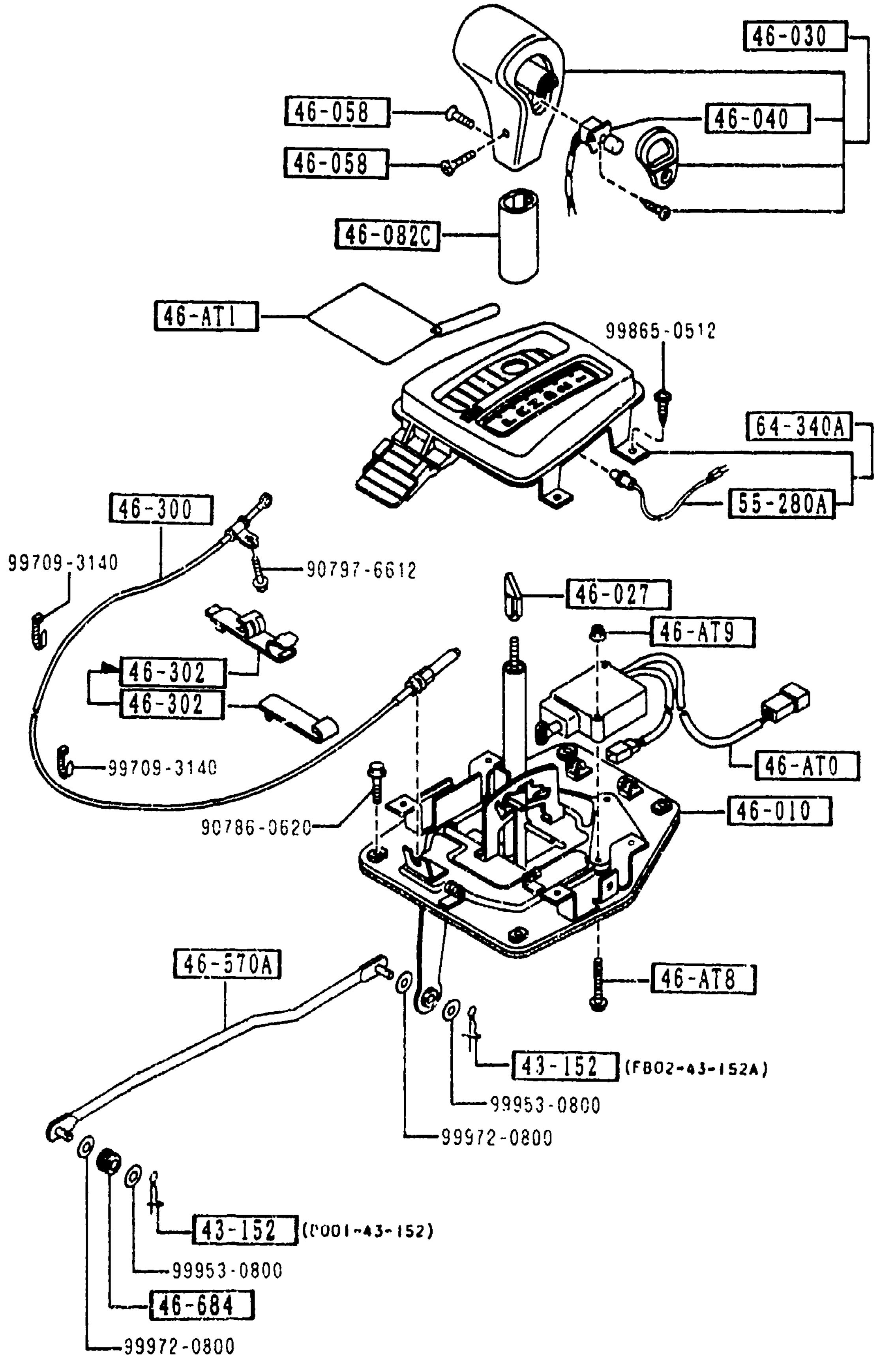
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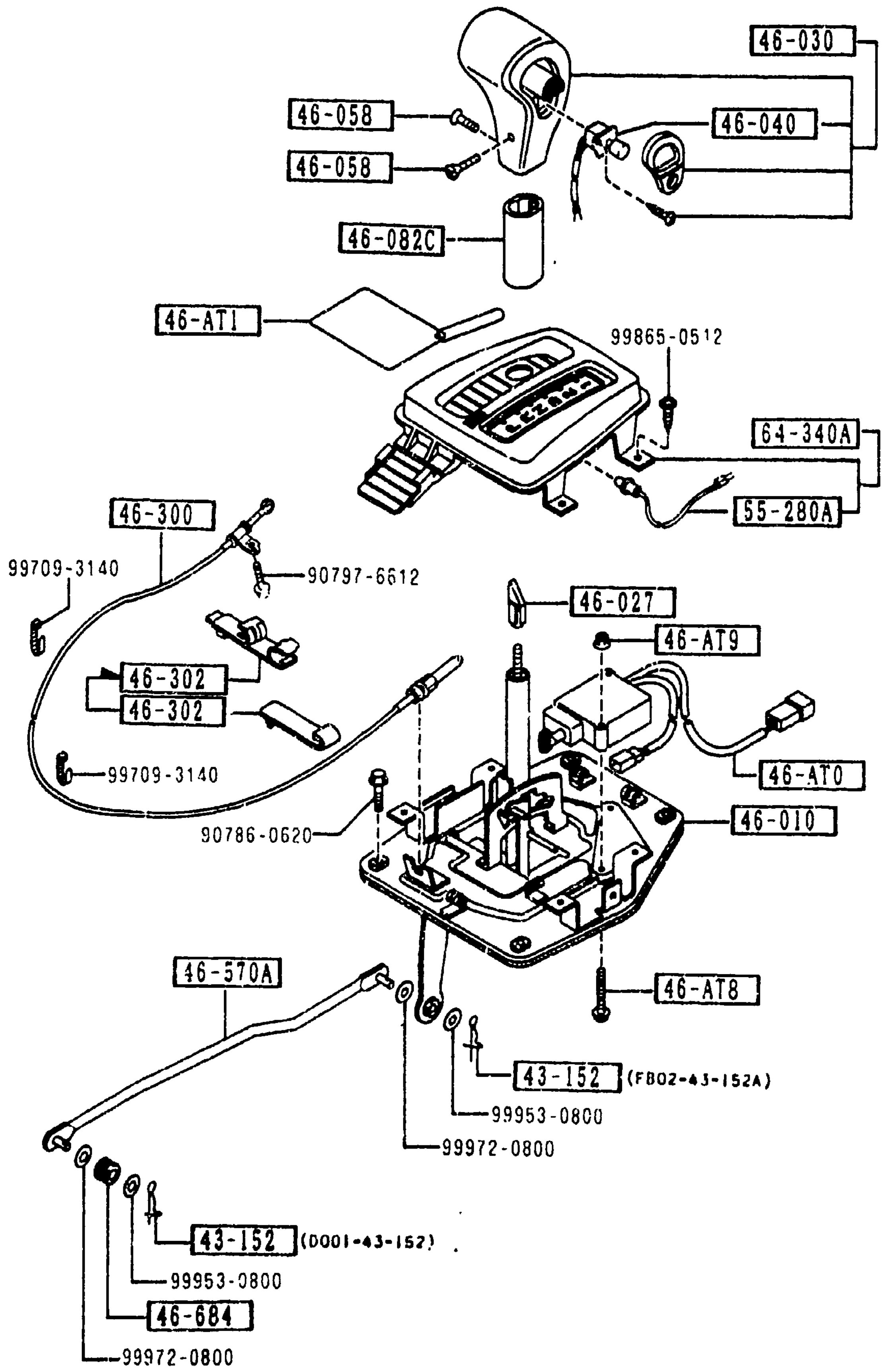
46-058
46-058
46-040
46-082C
46-AT1
99865-0512
64-340A
55-280A
46-300
99709-3140
90797-6612
46-027
46-AT9
46-302
46-302
99709-3140
46-AT0
46-010
90786-0620
46-570A
46-AT8
43-152
(FB02-43-152A)
99953-0800
99972-0800
43-152
(D001-43-152)
99953-0800
46-684
99972-0800

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
43-152		PIN,SNAP			
D001-43-152	1				
FB02-43-152A	1				
46-AT0		ACTUATOR,SHIFT LOCK			
NA03-46-AT0A	1				
46-AT1		TAG,CAUTION-CHANGE			
GN52-46-AT1B	1				
46-AT8		SCREW			
H338-46-AT8	2				
46-AT9		NUT			
H338-46-AT9	2				
46-010		LEVER,SELECT			
NA03-46-100C A (NA03-46-100E)	1				-0402
NA03-46-100E	1				0402-
46-027		CAM,CHANGE LEVER			
H338-46-027	1				
46-030		KNOB,CHANGE LEVER			
NA03-46-030A A (NA03-46-030B)	1				-0110
NA03-46-030B	1				0110-
46-040		SWITCH,OVER DRIVE CONTROL			
NA03-46-040A A (NA03-46-040B)	1				-0110
NA03-46-040B	1				0110-
46-058		SCREW,CHANGE LEVER KNOB			
FB02-46-058C	2				
46-082C		COVER,SELECT LEVER			
NA03-46-088	1				
46-300		CABLE,INTER LOCK			

0110 NA35MM-133859
0402 NA35MM-146561

4600 CHANGE CONTROL SYSTEM (AT)


46-030
46-058
46-040
46-058
46-082C
46-AT1
99865-0512
64-340A
55-280A
46-300
99709-3140
90797-6612
46-027
46-AT9
46-302
46-302
99709-3140
46-AT0
46-010
90786-0620
46-570A
46-AT8
43-152 (FB02-43-152A)
99953-0800
99972-0800
43-152 (D001-43-152)
99953-0800
46-684
99972-0800

4600 -2 ✱ CHANGE CONTROL SYSTEM (AT)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
NA03-46-300A	1				-0101
AN(NA03-46-300B)					
NA03-46-300B	1				0101-
46-302		CLIP			
NA03-46-302	1				-0501
NA16-46-302	1				0501-
46-570A		ROD,SELECTOR-REAR			
NA03-46-570	1				
46-684		BUSH			
1015-46-684A	1				
55-280A		BULB & SOCKET			
NA03-55-280A	1				
64-340A		INDICATOR			
NA03-64-350B	1				-0110
A (NA03-64-350C)					
NA03-64-350C	1				0110-

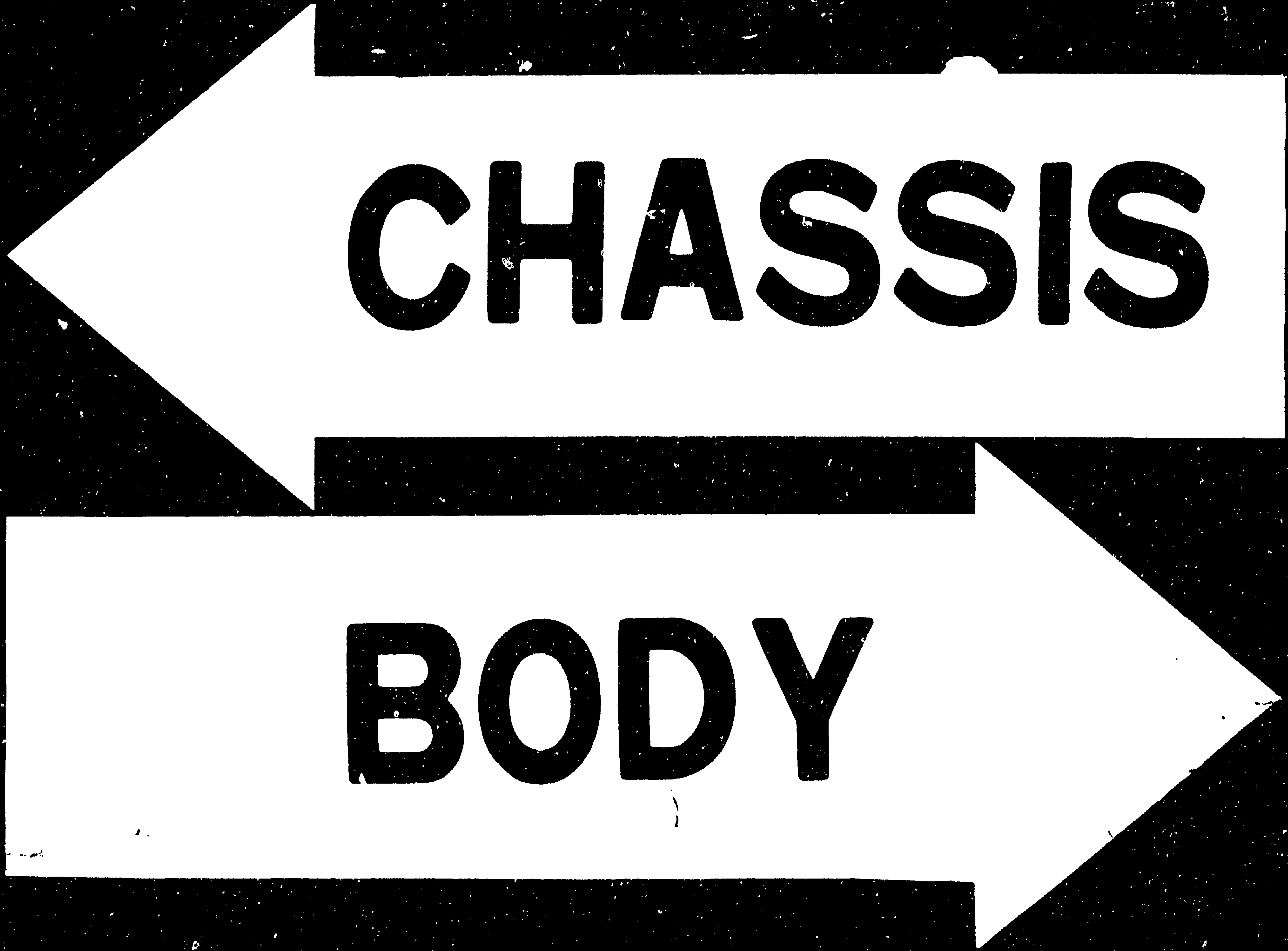
0101 NA35MM-133591
0110 NA35MM-133859
0501 NA35MM-150679

CHASSIS

BODY

CHASSIS

BODY



CHASSIS

BODY

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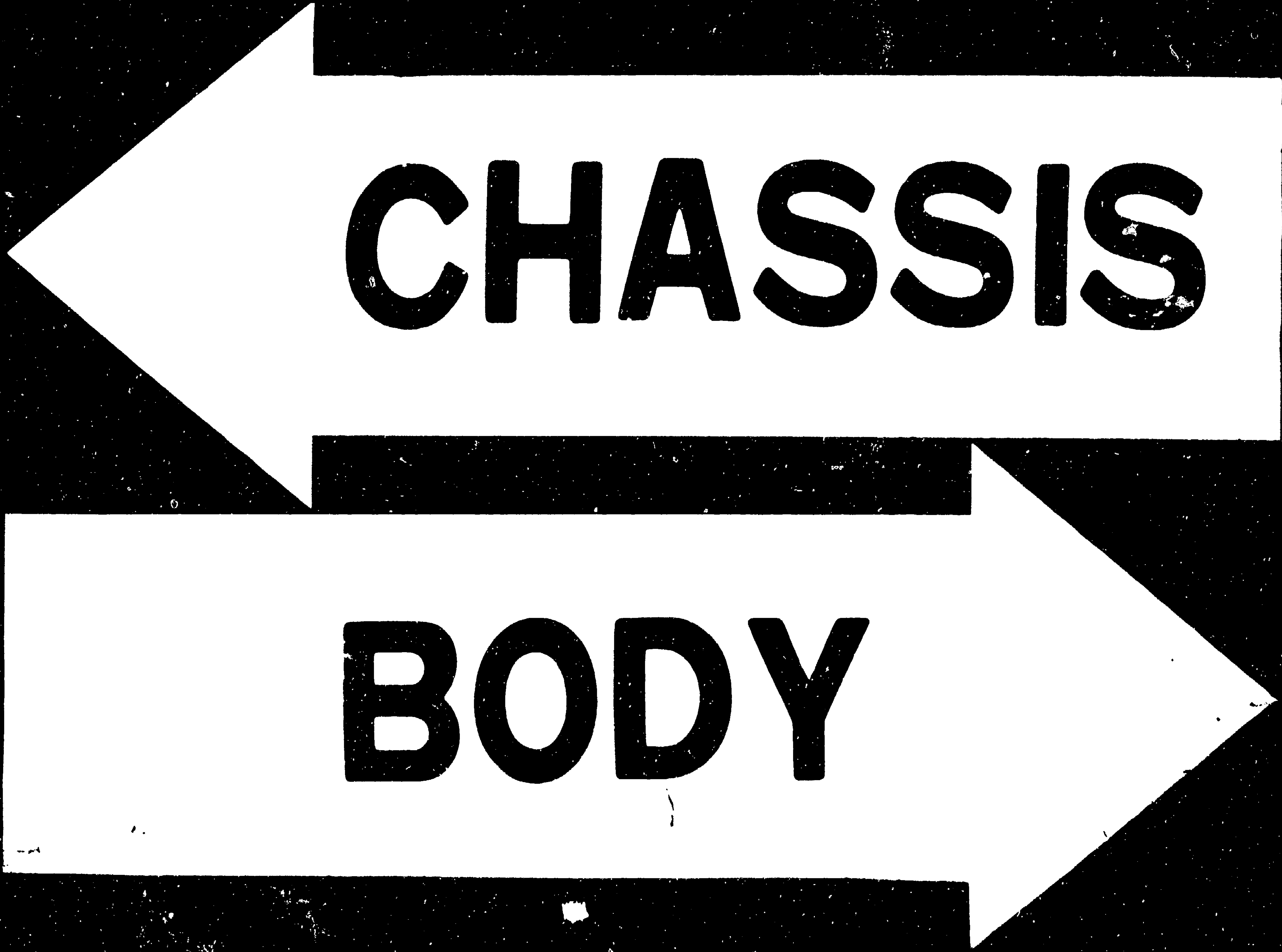
BODY



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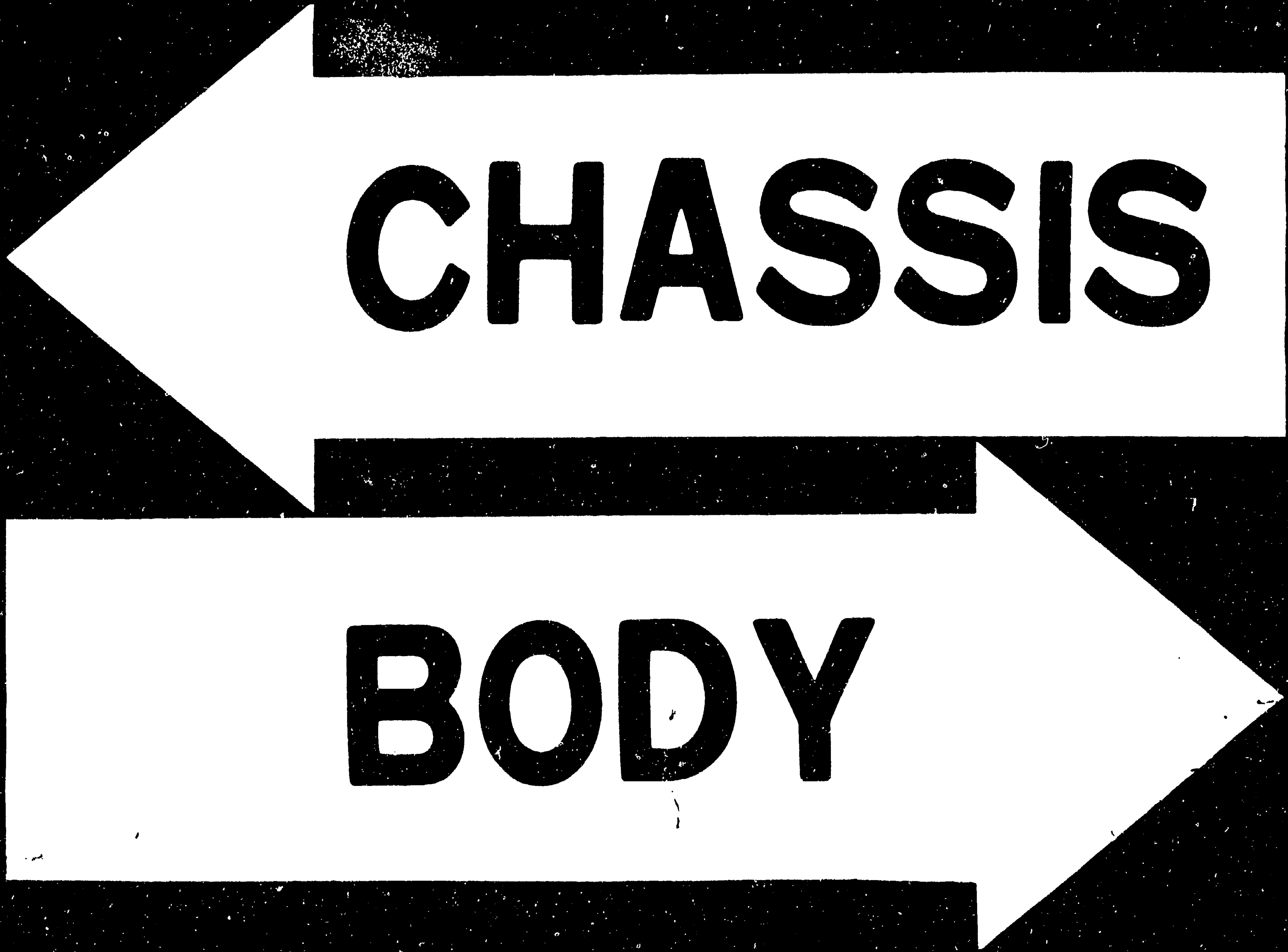

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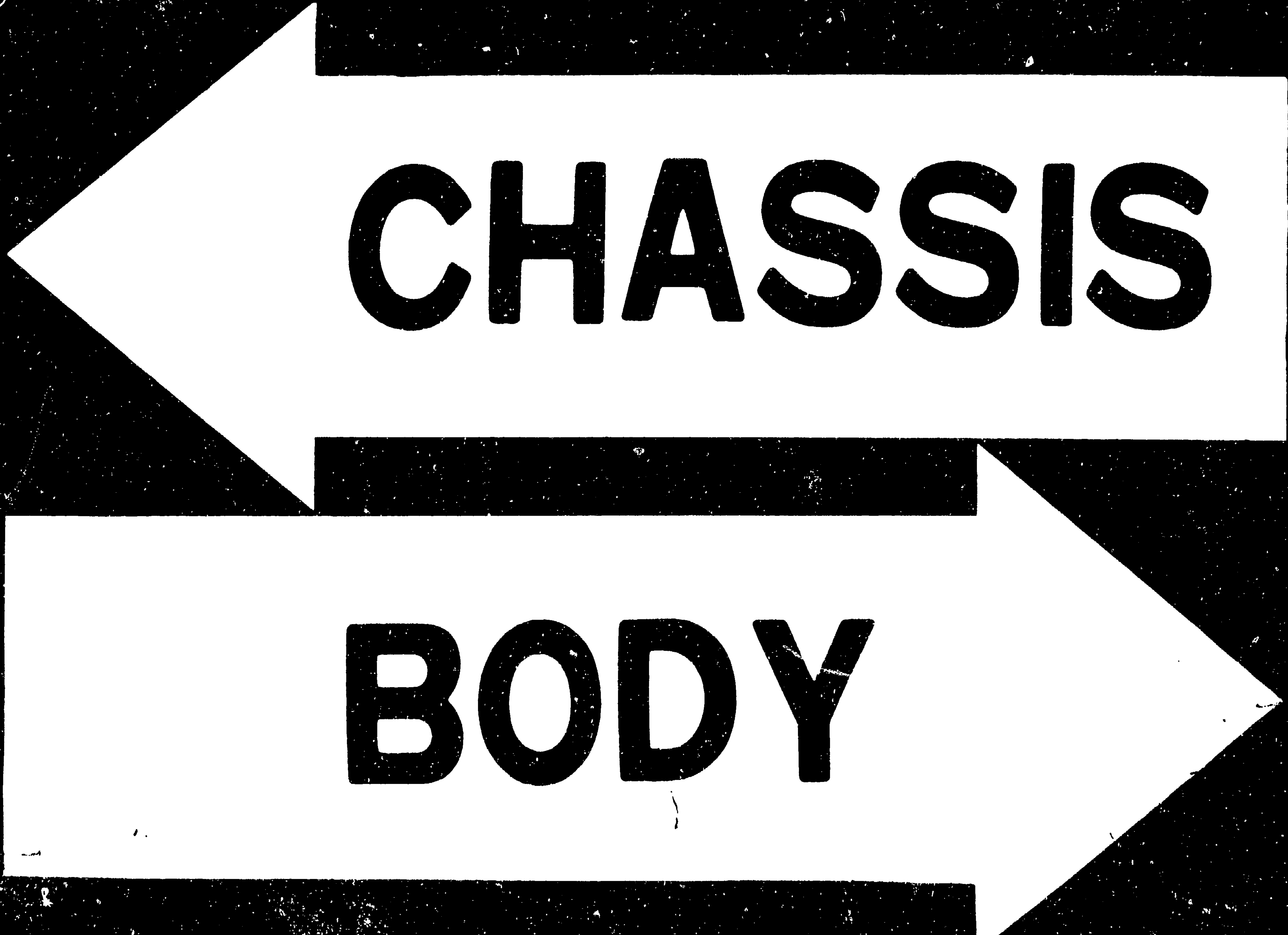

CHASSIS

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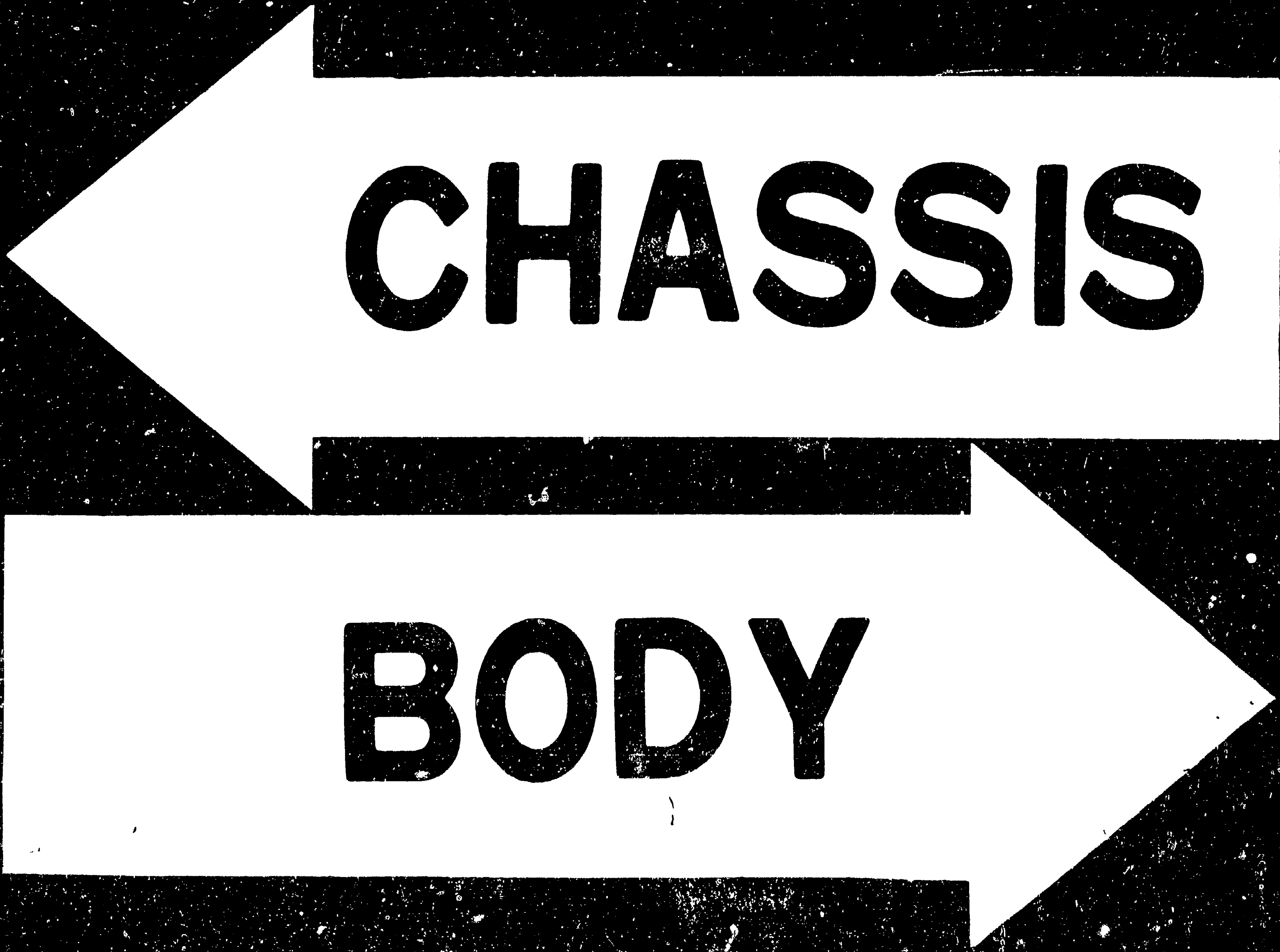
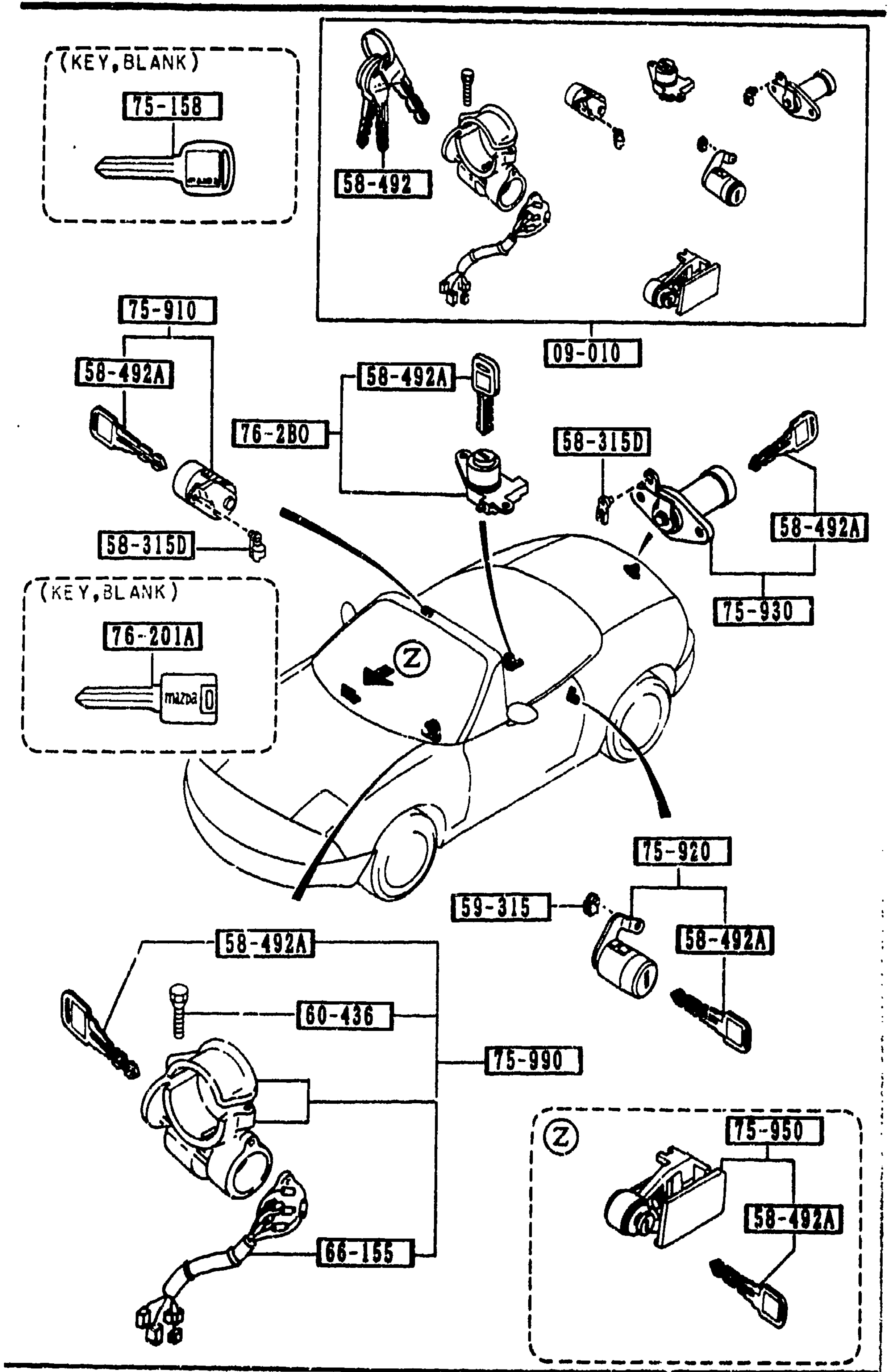

CHASSIS
BODY

CHASSIS

BODY

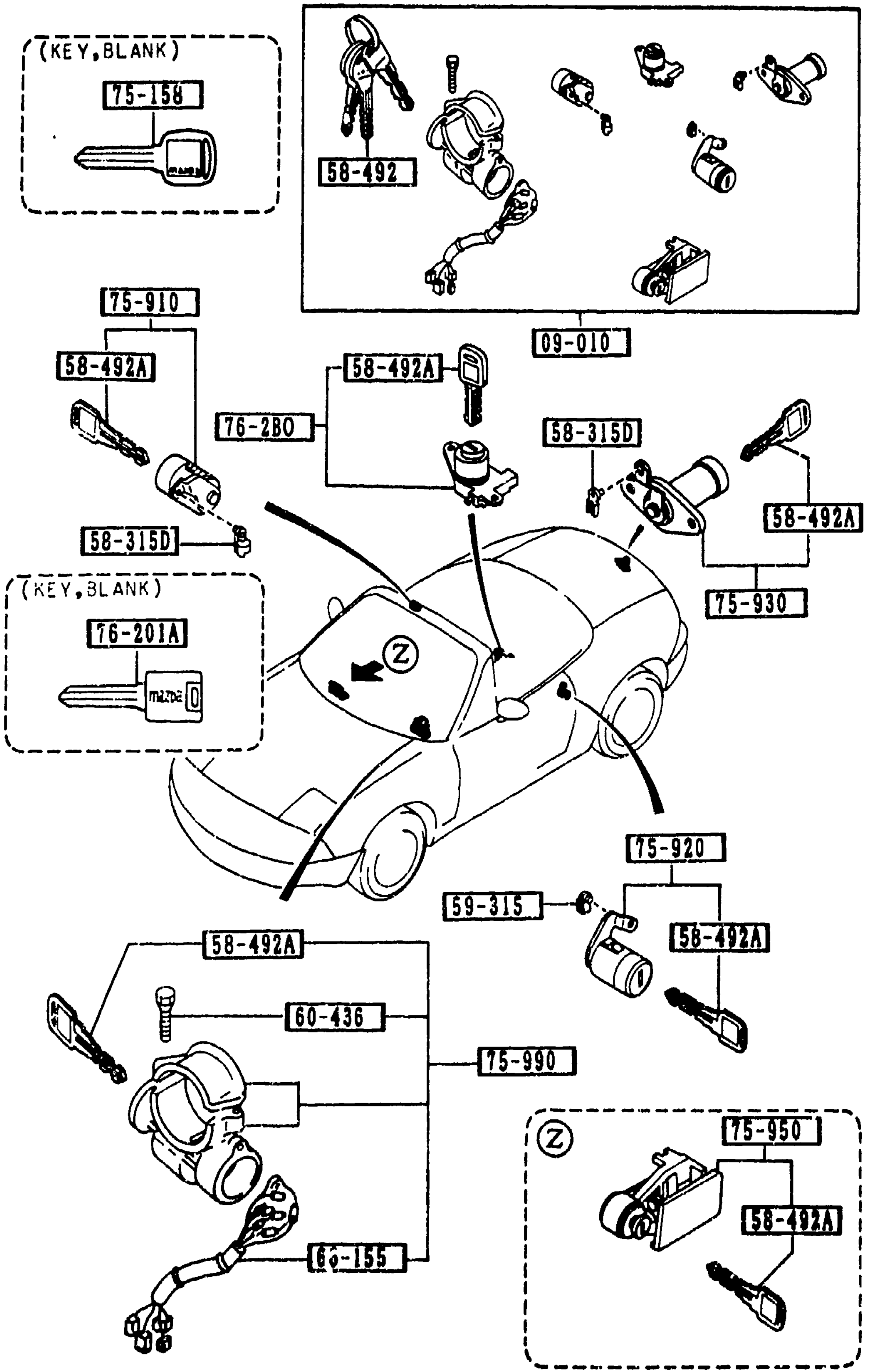
SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS
2-E05	5000	FRONT BUMPER
2-H05	5010	REAR BUMPER
2-J05	5030	WINDOW MOULDING & COWL GRILLES
2-L05	5100	HEAD LAMPS
2-M05	5103	HEAD LAMP RETRACTORS
2-D06	5105	FRONT COMBINATION LAMPS
2-F06	5110	REAR COMBINATION LAMPS
2-I06	5120	LICENSE LAMPS
2-J06	5180	REAR FINISHER
2-L06	5230	BONNET
2-N06	5260	TRUNK LID
2-D07	5310	BODY PANELS (FRONT)
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)
2-H07	5330	BODY PANELS (DASH & COWL PANEL)
2-I07	5340	BODY PANELS (SIDE)
2-C08	5370	BODY PANELS (FLOOR)
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)
2-G08	5390	FLOOR ATTACHMENTS
2-C09	5500	DASHBOARD EQUIPMENTS
2-E09	5520	METER HOOD
2-F09	5530	SPEEDOMETER CABLE
2-G09	5540	METER COMPONENTS
2-I09	5560	DASHBOARD & RELATED PARTS
2-L09	5570	CONSOLE
2-C10	5580	VENTILATOR
2-D10	5700	SEATS
2-K10	5790	SEAT BELTS
2-L10	5800	FRONT DOORS
2-C11	5830	FRONT DOOR MECHANISMS
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS
2-C12	6100	HEATER
2-D12	6110	HEATER UNIT COMPONENTS
2-E12	6115	HEATER CONTROLS COMPONENTS
2-F12	6120	HEATER BLOWER COMPONENTS
2-G12	6130	AIR CONDITIONER
2-K12	6135	O RING SET,PIPING
2-[illegible]	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)
2-N12	[illegible]150	COOLING UNIT (AIR CONDITIONER)
2-C13	6300	WINDOW GLASSES
2-D13	6330	SUNROOF
2-M13	6600	SWITCHES & RELAYS (ENGINE)
2-D14	6610	DASHBOARD SWITCHES
2-E14	6611	COMBINATION SWITCH
2-F14	6630	RELAYS & UNIT (BODY)
2-G14	6635	DOOR SWITCH & HORNS
2-H14	6640	AUTO CRUISE CONTROL SYSTEM
2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)
2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)
2-L14	6700	WIRING HARNESSES(FRONT & REAR)
2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)
2-C15	6702	WIRING HARNESSES(DASHBOARD)
2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)
2-F15	6704	WIRING HARNESS CLAMPS
2-I15	6720	WINDSHIELD WASHER
2-K15	6730	WINDSHIELD WIPERS
2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)
2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS
2-C16	6840	TRIMS & SCUFF PLATES
2-E16	6860	FLOOR MATS & PADS
2-G16	6870	SERVICE TOOLS
2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS
2-J16	6930	CAUTION PLATES & LABELS
2-L16	7250	QUARTER WINDOW & TRIMS
3-C03	7900	ACCESSORIES


(KEY,BLANK)
75-158
58-492
09-010
75-910
58-492A
76-2B0
58-492A
58-315D
58-315D
58-492A
75-930
(KEY,BLANK)
76-201A
mazda
Z
75-920
59-315
58-492A
58-492A
60-436
75-990
66-155
Z
75-950
58-492A

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
09-010		KEY SET			
NA01-09-010B AN(NA01-09-010C)	1				-0201
00		NA0 BLACK			
NA03-09-010 AN(NA03-09-010A)	1				-0201
00		NA0 BLACK			
NA01-09-010C	1	(MT)			0201-
00		NA0 NA1 BLACK			
NA03-09-010A	1	(AT)			0201-
00		NA0 NA1 BLACK			
58-315D		CLIP (R)			
G030-58-315	2				
58-492		KEY,PRIMARY			
BR75-58-492	2	KEY NO.IS REQUIRED			
58-492A		KEY,SECONDARY			
LA02-58-493	1	KEY NO.IS REQUIRED			
59-315		CLIP			
G030-59-315	1				
60-436		BOLT,SET			
H043-66-154	2				
66-155		SWITCH,IGNITION			
D001-66-151	1				
75-158		KEY,BLANK			
LA02-76-202	1				
75-910		KEY SUB SET(R),DOOR			
NA01-76-210	1				
75-920		KEY SUB SET(L),DOOR			
NA01-76-220	1				

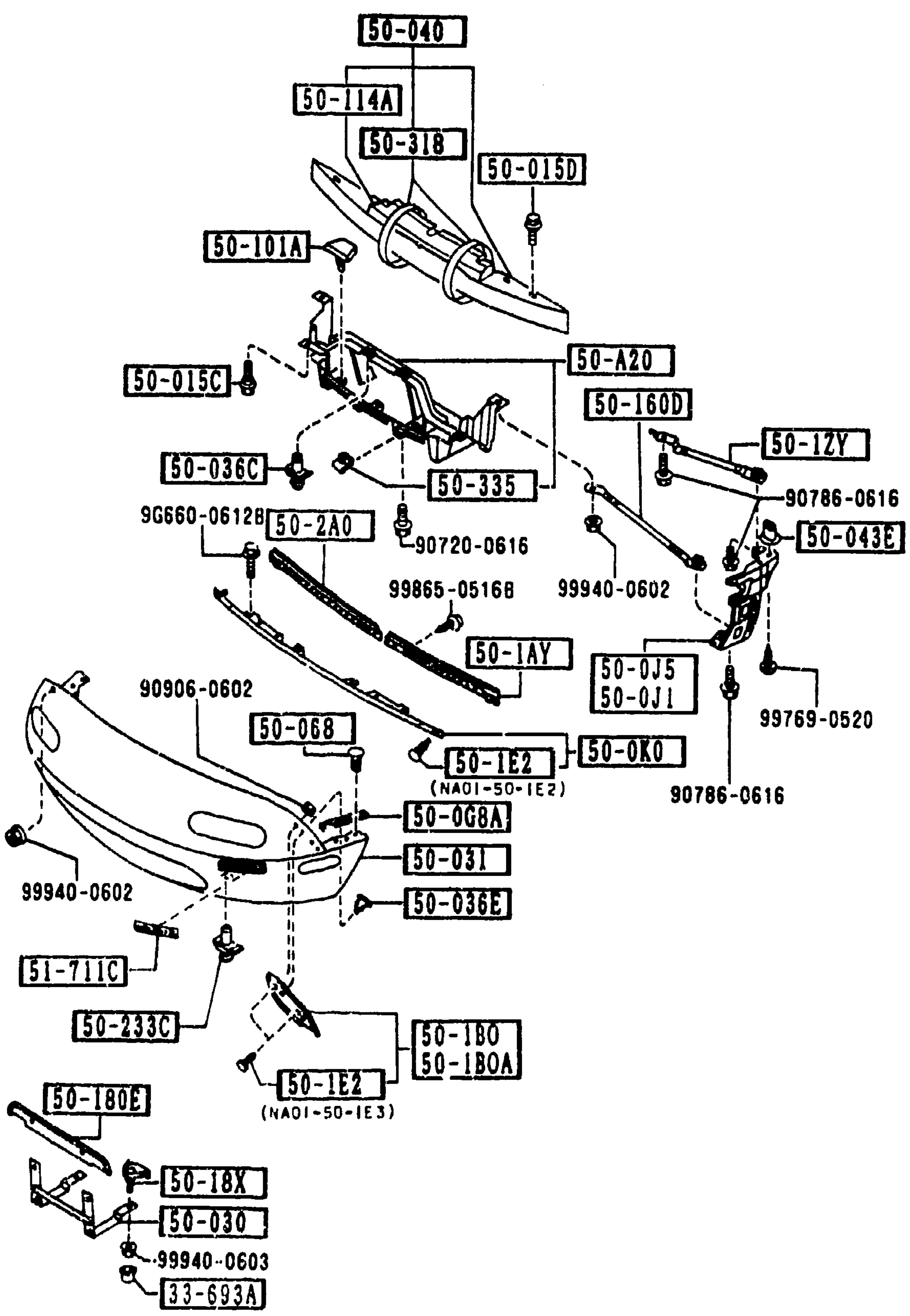
0201 NA35MM-137180


(KEY,BLANK)
75-158
58-492
09-010
75-910
58-492A
76-2B0
58-492A
58-315D
58-315D
58-492A
75-930
(KEY,BLANK)
76-201A
Z
75-920
59-315
58-492A
58-492A
60-436
75-990
66-155
Z
75-950
58-492A

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
75-930		KEY SUB SET,TRUNK			
NA01-76-230	1				
75-950		KEY SUB SET,GLOVE			
NA01-76-250	1				
00		NA0 BLACK			
75-990		KEY SUB SET,ST.LOCK			
NA01-76-290 AN(NA01-76-290A)	1				-0201
NA03-76-290 AN(NA03-76-290A)	1				-0201
NA01-76-290A	1	(MT)			0201-
NA03-76-290A	1	(AT)			0201-
76-2B0		KEY SUB SET,CONSOL			
NA01-76-2B0	1				
00		NA0 NA1 BLACK			
76-201A		KEY,BLANK-PRIMARY			
BR75-76-201	1				-9C01
B545-76-201	1				9C01-

9C01 NA35MM-130310
0201 NA35MM-137180

5000 FRONT BUMPER


50-040
50-114A
50-318
50-015D
50-101A
50-015C
50-A20
50-160D
50-1ZY
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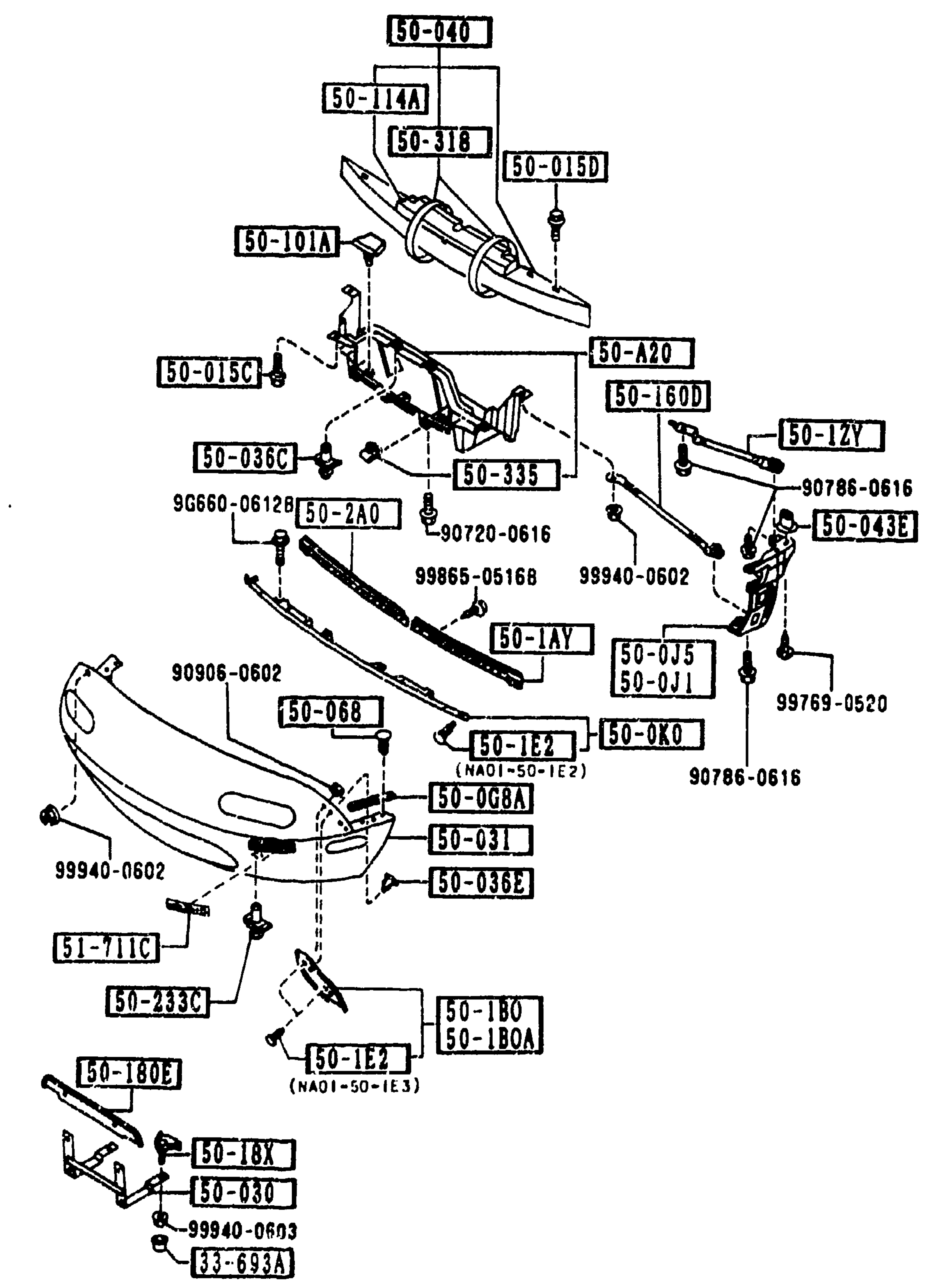
50-335
50-043E
9G660-06128
50-2A0
90720-0616
99865-05168
99940-0602
50-1AY
50-0J5
50-0J1
99769-0520
90906-0602
50-068
50-1E2
(NA01-50-1E2)
50-0K0
90786-0616
50-0G8A
50-031
99940-0602
50-036E
51-711C
50-233C
50-180
50-180A
50-1E2
(NA01-50-1E3)
50-180E
50-18X
50-030
99940-0603
33-693A

5000 -1 FRONT BUMPER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
33-693A		CAP,BLEEDER SCREW			
0259-33-693	2				
50-A20		GUIDE,AIR			
NA01-50-A20A	1				
50-0G8A		SEAL,RUBBER-FRONT BUMPER			
NA01-50-0G9	2				
50-0J1		RETAINER(R),FORNT BUMPER			
NA01-50-0J1	1	(AT)			
50-0J5		RETAINER(L),FRONT BUMPER			
NA01-50-0J5	1				
50-0K0		RETAINER,FASCIA			
NA01-50-0K0B	1				
50-015C		BOLT			
FB01-50-132	2				
50-015D		BOLT			
NA01-50-0Z2	8				
50-030		HOLDER,NO. PLATE			
NA01-50-180A (NA01-50-180A)	1				-9A01
NA01-50-180A	1				9A01-
50-031		BUMPER,FRONT			
NAY1-50-030	1				
50-036C		FASTENER			
BF67-50-033	2				
50-036E		CLIP			
KA01-50-1G2	6				
50-040		REINFORCEMENT,BUMPER			
NA01-50-070	1	(W/AIR BAG)			
NA07-50-070	1	(W/O AIR BAG)			0701-

9A01 NA35**-122908
0701 NA35**-200041

5000 FRONT BUMPER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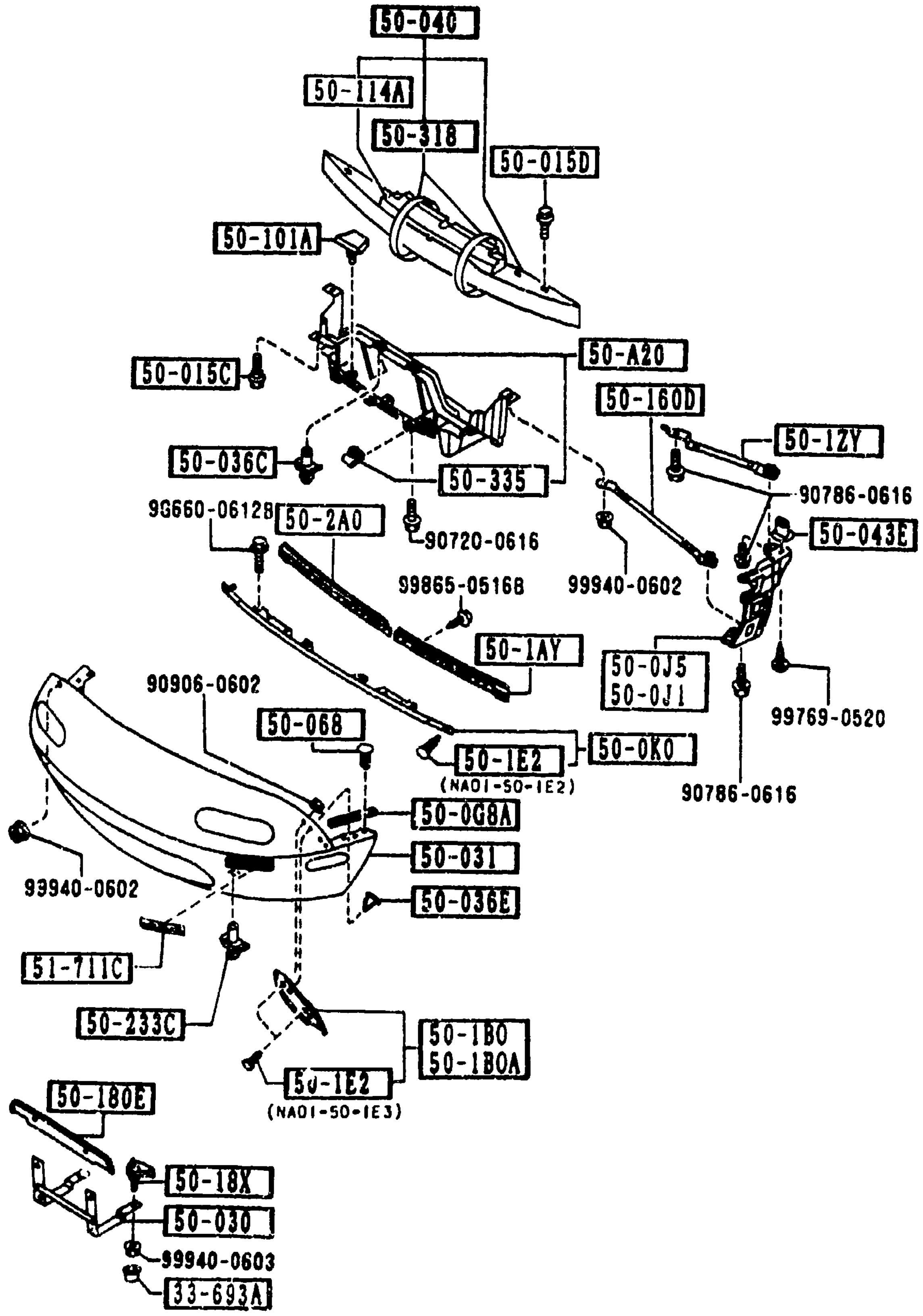
50-114A
50-318
50-015D
50-101A
50-015C
50-A20
50-160D
50-1ZY
50-036C
50-335
90786-0616
9G660-06128
50-2A0
90720-0616
50-043E
99865-05168
99940-0602
50-1AY
50-0J5
50-0J1
90906-0602
99769-0520
50-068
50-0K0
50-1E2
(NA01-50-1E2)
90786-0616
50-0G8A
50-031
99940-0602
50-036E
51-711C
50-233C
50-1B0
50-1B0A
50-1E2
(NA01-50-1E3)
50-180E
50-18X
50-030
99940-0603
33-693A

5000 -2 FRONT BUMPER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-043E		SLIDE'A',BUMPER			
B092-50-032	2				
50-068		CLIP			
NA01-50-068	6				
50-1AY		PLATE,SET NO.1			
NA01-50-1AYA	1				-9912
NA01-50-1AYB	1				9912-
50-1B0		PLATE NO.2(R),SET-F. BUMPER			
NA01-50-1B0	1				
50-1B0A		PLATE NO.2(L),SET-F. BUMPER			
NA01-50-1C0	1				
50-1E2		BOLT			
NA01-50-1E2	2				
NA01-50-1E3	4				
50-1ZY		BRACKET,FENDER			
NA01-50-1ZY	2				
50-101A		COVER,GRILLE			
NA01-50-101A	3				
50-114A		SPACER,E.A.FOAM			
NA01-50-114	1				
50-160D		BRACKET(L),F. BUMPER SIDE			
NA01-50-160	2				
50-18X		BRACKET,LICENCE PLATE			
NA01-50-18X	2				
50-180E		PROTECTOR,NO. PLATE			
FB01-50-144	1				
50-2A0		SET PLATE NO.1(R),RR BUMPER			
NA01-50-2A0	1				-9912

9912 NA35XX-[illegible]0552

5000 FRONT BUMPER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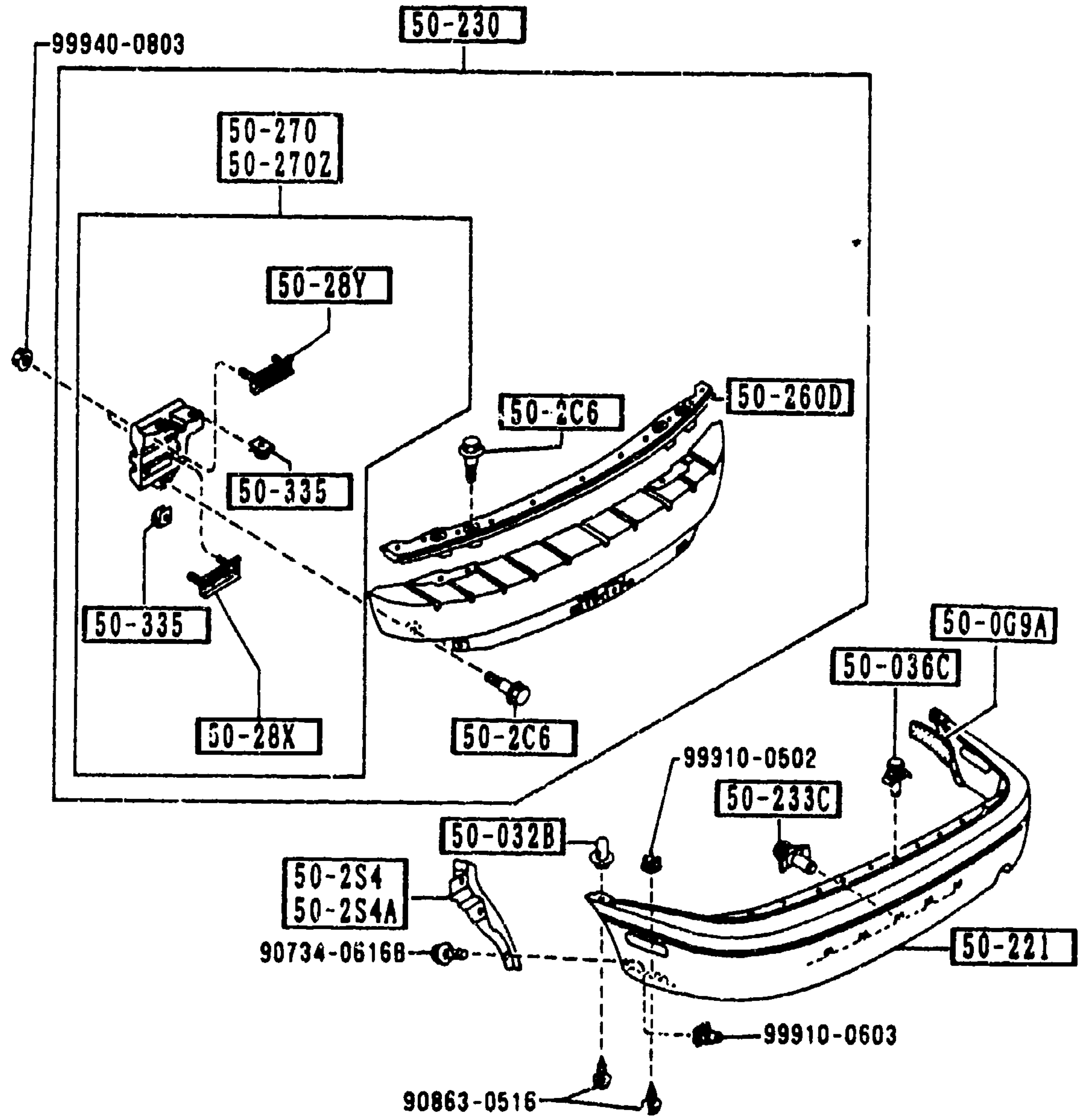
50-318
50-015D
50-101A
50-A20
50-015C
50-160D
50-1ZY
50-036C
50-335
90786-0616
9G660-06128
50-2A0
90720-0616
50-043E
99865-05168
99940-0602
50-1AY
50-0J5
50-0J1
99769-0520
90906-0602
50-068
50-1E2
(NA01-50-1E2)
50-0K0
90786-0616
50-0G8A
50-031
99940-0602
50-036E
51-711C
50-233C
50-1B0
50-1B0A
5J-1E2
(NA01-50-1E3)
50-180E
50-18X
50-030
99940-0603
33-693A

5000 -3 M FRONT BUMPER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CCNT'D NA01-50-2A0A	1				991c-
50-233C		FASTENER,REAR BUMBER			
BF82-50-233	3				
50-318		TAPE,ENGY ABS.FORM-R R BUM			
NA01-50-318	2				
50-335		NUT,CLIP			
FB01-50-133	4				
51-711C		ORNAMENT,MAKER NAME-FRONT			
NA04-51-711	1				
14		SU UC DU HU LIGHT GRAY			
18		3L DARK GRAY			

9912 NA35MM-120552

5010 REAR BUMPER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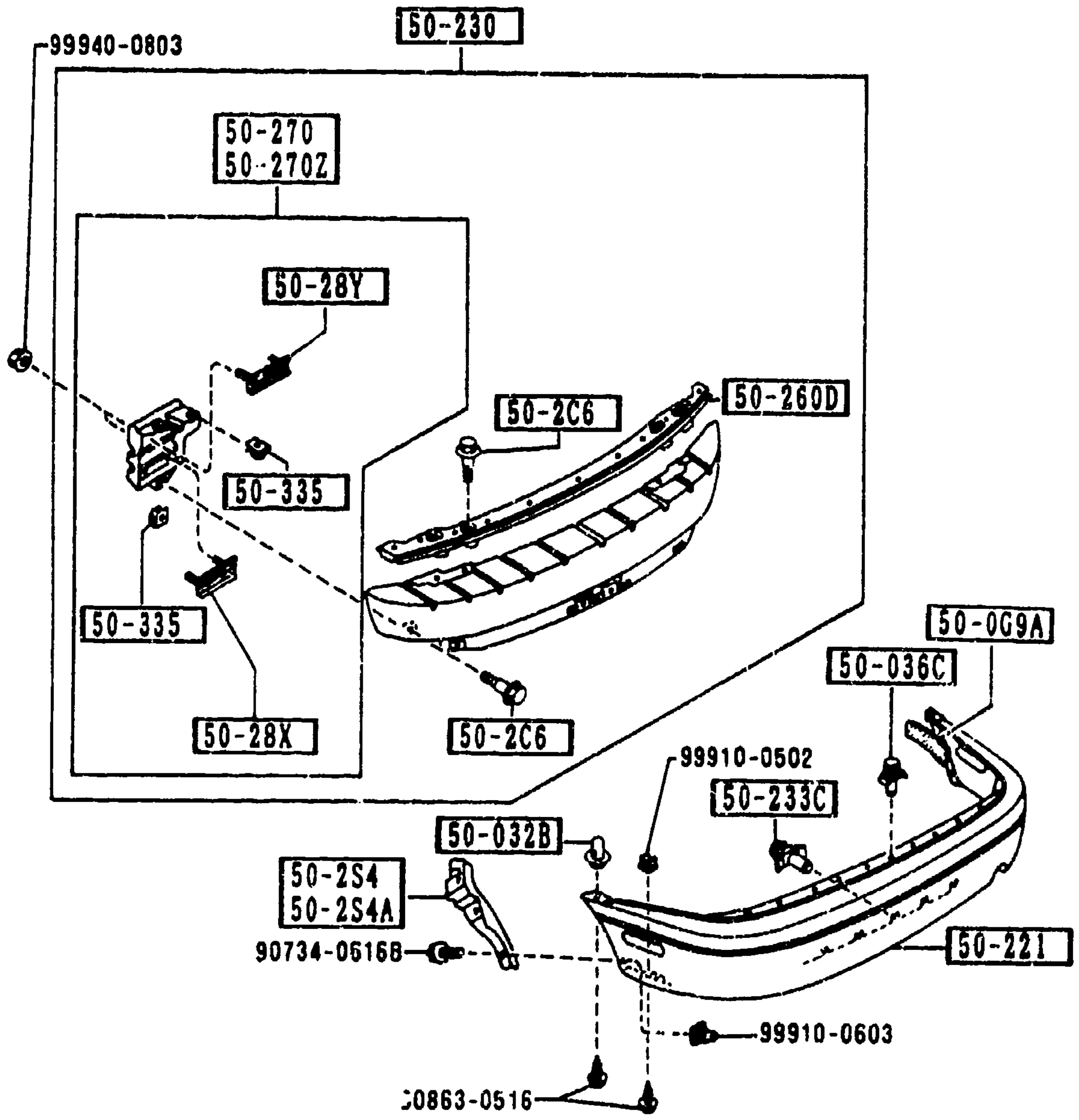
50-230
50-270
50-270Z
50-28Y
50-335
50-2C6
50-260D
50-335
50-28X
50-2C6
50-0G9A
50-036C
99910-0502
50-233C
50-032B
50-2S4
50-2S4A
90734-0616B
50-221
99910-0603
90863-0516

5010 -1 REAR BUMPER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-0G9A		SEAL,RUBBER-REAR BUMPER			
NA01-50-0G8	2				
50-032B		SLIDE'UP.',BUMPER			
GJ21-50-032	2				
50-036C		FASTENER			
BF67-50-033	11				
50-2C6		BOLT			
NA01-50-2C6	6				
50-2S4		SHILD(R),SPLASH-R.BUMPER			
NA01-50-2S4	1				
50-2S4A		SHILD(L),SPLASH-R.BUMPER			
NA01-50-2S5	1				
50-221		BUMPER,REAR			
NAY1-50-220 A (NAY1-50-220A)	1				-9330
NAY1-50-220A	1				9330-
50-230		REINFORCEMENT,BUMPER			
NA01-50-260	1	(W/AIR BAG)			
NA07-50-260	1	(W/O AIR BAG)			0701-
50-233C		FASTENER,REAR BUMBER			
BF82-50-233	5				
50-260D		RETAINER,R.BUMPER			
NA01-50-2J0	1				
50-270		STAY(R),RR. BUMPER			
NA01-50-280A	1				
50-270Z		STAY(L),RR. BUMPER			
NA01-50-290A	1				
50-28X		PLATE SET			
NA01-50-28XC	2				

9330 NA35**-100072
0701 NA35**-200041

5010 REAR BUMPER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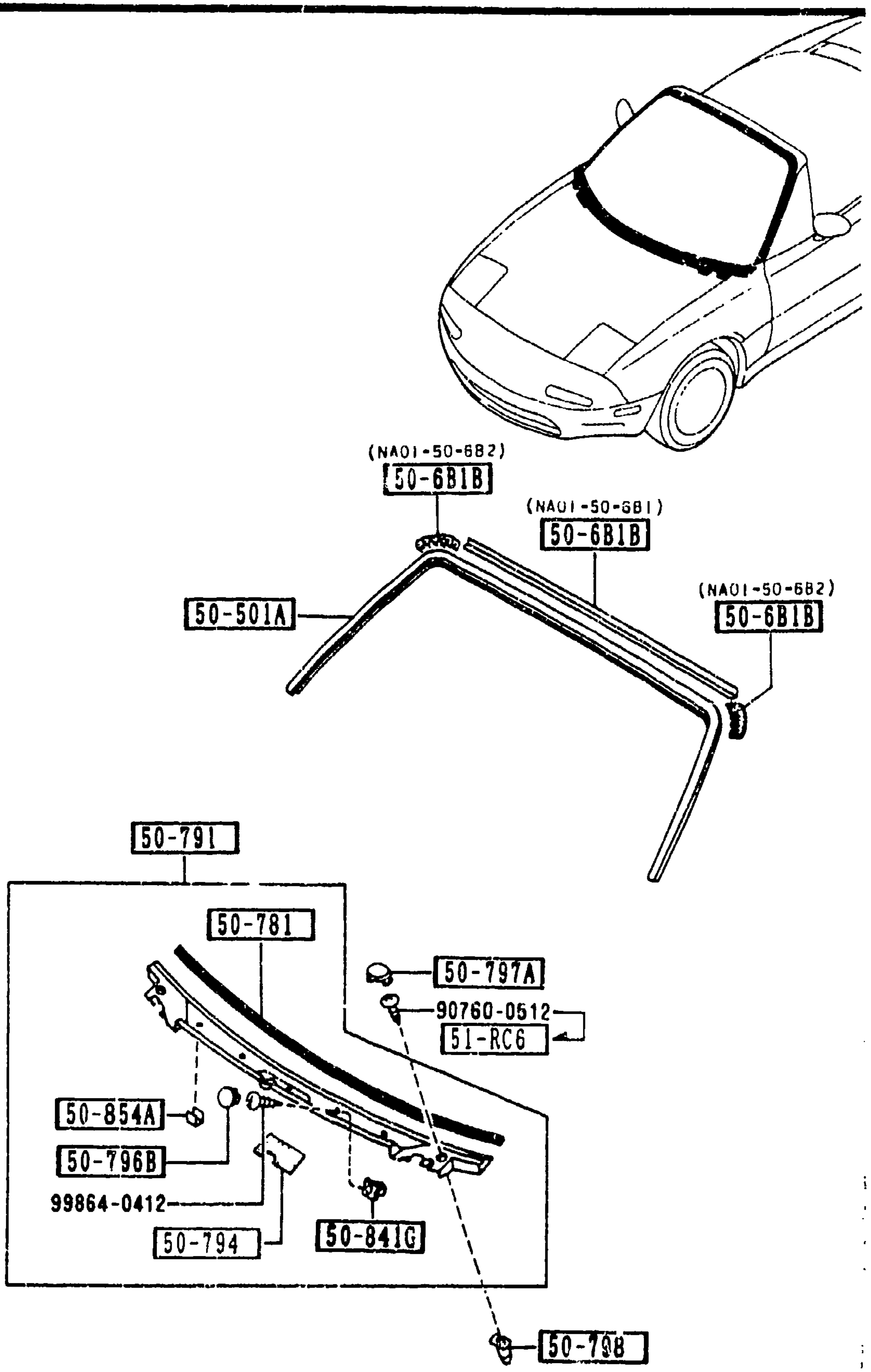
50-230
50-270
50-270Z
50-28Y
50-2C6
50-260D
50-335
50-335
50-28X
50-2C6
50-0G9A
50-036C
99910-0502
50-233C
50-032B
50-2S4
50-2S4A
90734-0616B
50-221
99910-0603
0863-0516

5010 -2 ※ REAR BUMPER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-28Y		PLATE SET			
NA01-50-28YC	2				
50-335		NUT,CLIP			
NA01-50-133	6				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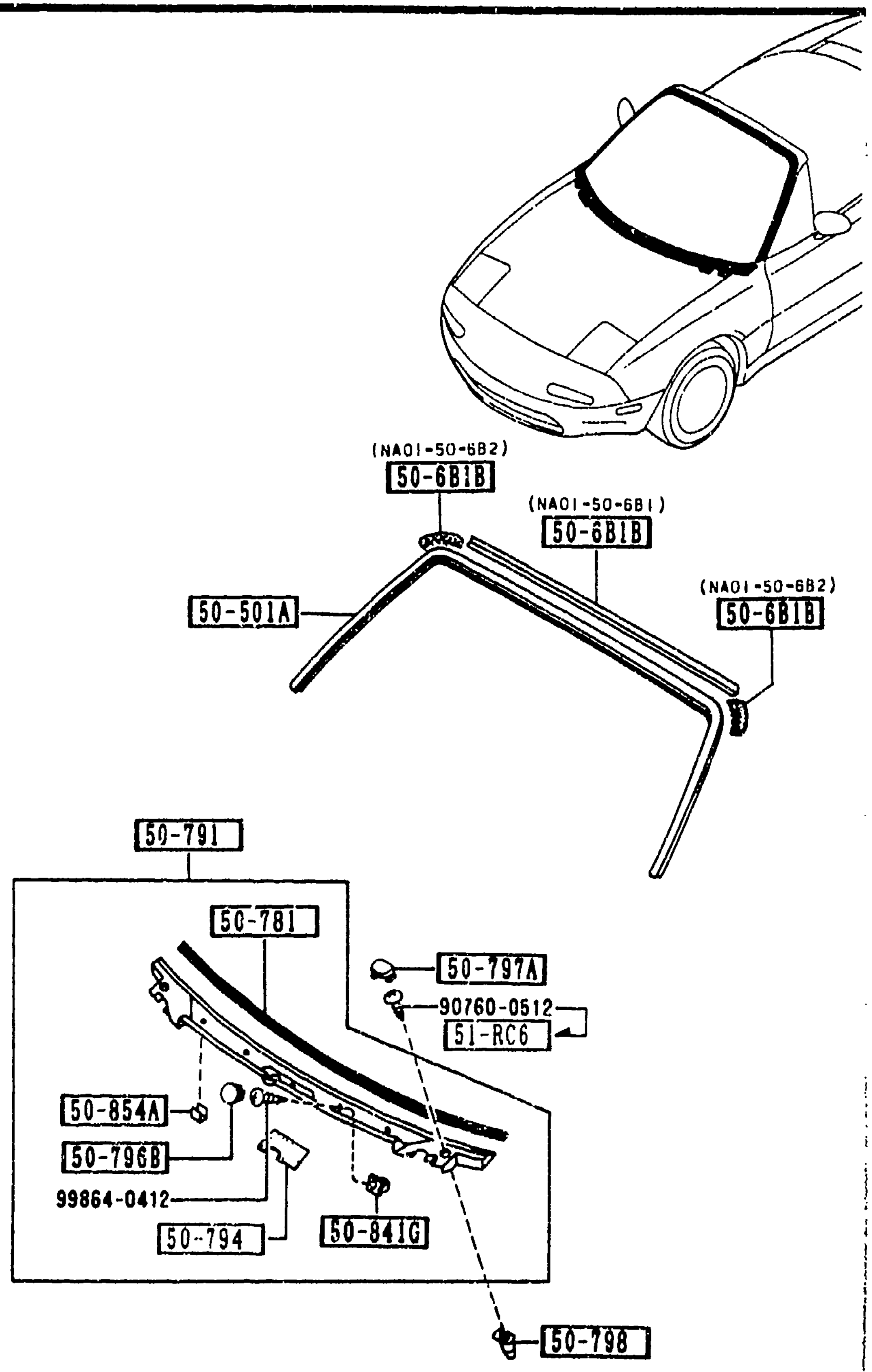
50-6B1B
(NA01-50-6B1)
50-6B1B
(NA01-50-6B2)
50-6B1B
50-501A
50-791
50-781
50-797A
90760-0512
51-RC6
50-854A
50-796B
99864-0412
50-794
50-841G
50-798

5030 -1 WINDOW MOULDING & COWL GRILLES

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-501A		MOULD(UP),FRT.WINDOW			
NAY1-50-601	1				
50-6B1B		PROTECTOR,MOULD-FRT WIND			
NA01-50-6B1	1				
NA01-50-6B2	2				9421-
50-781		PROTECTOR,COWL GRILL			
NA01-50-792 A (NA01-50-792A)	1				-9701
NA01-50-792A	1				9701-
50-791		GRILLE,COWL			
NA01-50-790A A (NA01-50-790B)	1				-9412
NA01-50-790B A (NA01-50-790C)	1				9412-9701
NA01-50-790C A (NA01-50-790D)	1				9701-9912
NA01-50-790D	1				9912-
50-794		PROTECTOR			
NA01-50-788	1				
50-796B		CAP			
B455-50-796	5				
50-797A		CAP			
NA01-50-797	2				
50-798		SCREW,GROMMET			
NA01-50-798	2				
50-841G		GROMMET,SCREW			
F044-51-912	5				-9412
NA01-51-789	5				9412-
50-854A		PROTECTOR			
NA01-50-794	4				
51-RC6		SCREW,SIDE GARNNISH			

9412 NA35**-100416
9421 NA35**-101369
9701 NA35**-111969
9912 NA35**-120552

5030 WINDOW MOULDING & COWL GRILLES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50-6B1B
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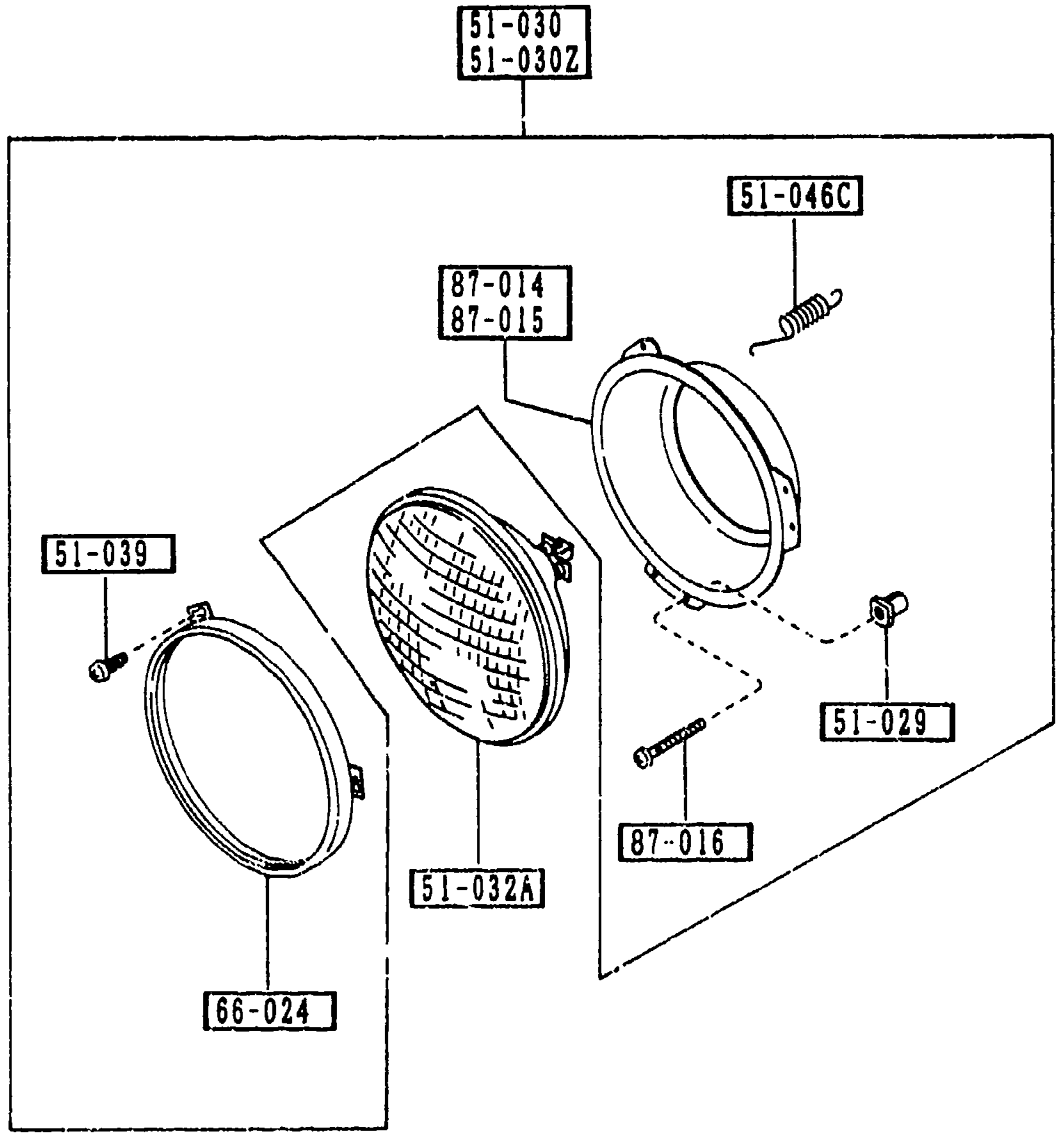
50-6B1B
50-501A
(NA01-50-6B2)
50-6B1B
50-791
50-781
50-797A
90760-0512
51-RC6
50-854A
50-796B
99864-0412
50-794
50-841G
50-798

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
H272-51-RC6	2				9418-

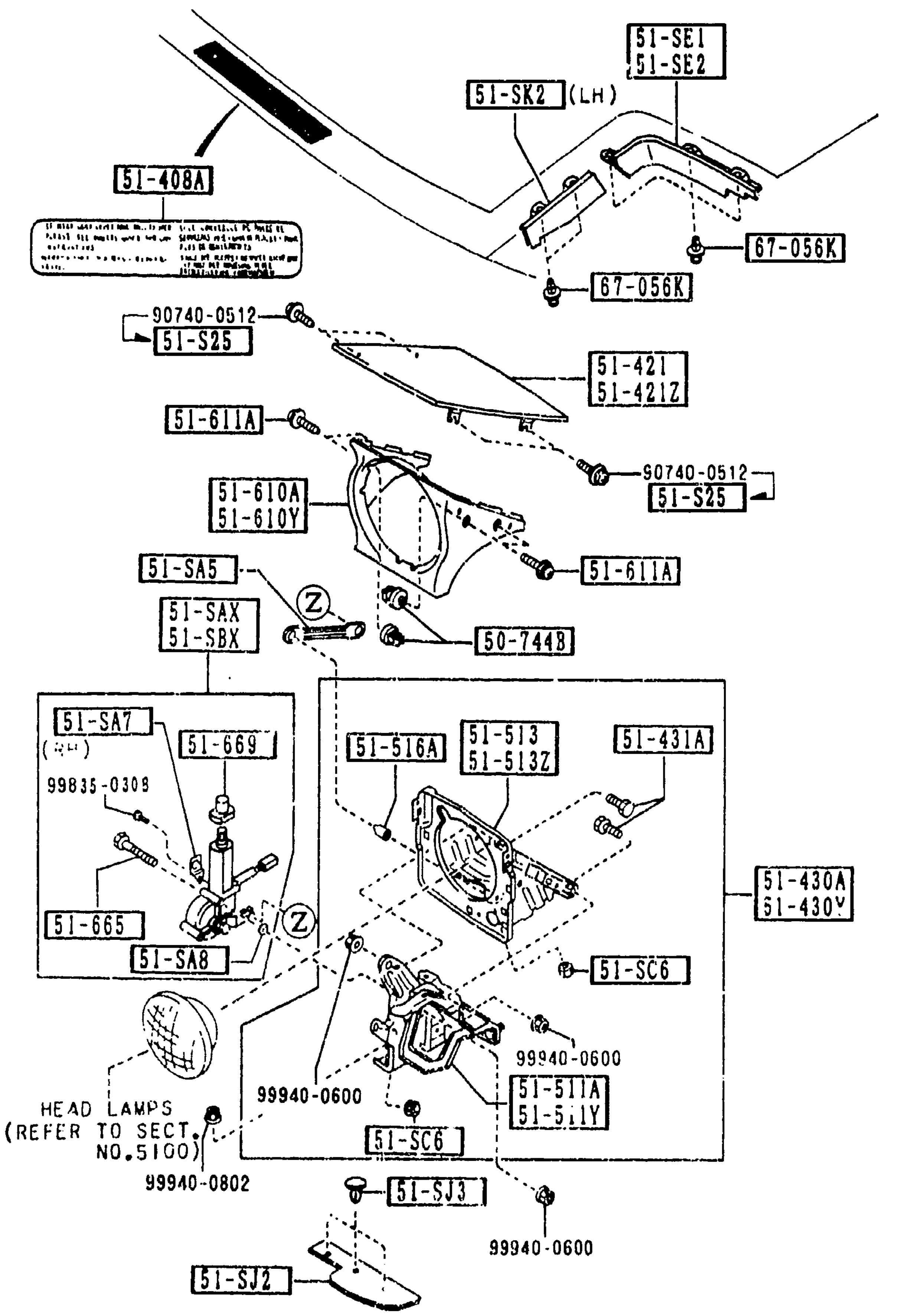
9418 NA35**-100895

5100 HEAD LAMPS

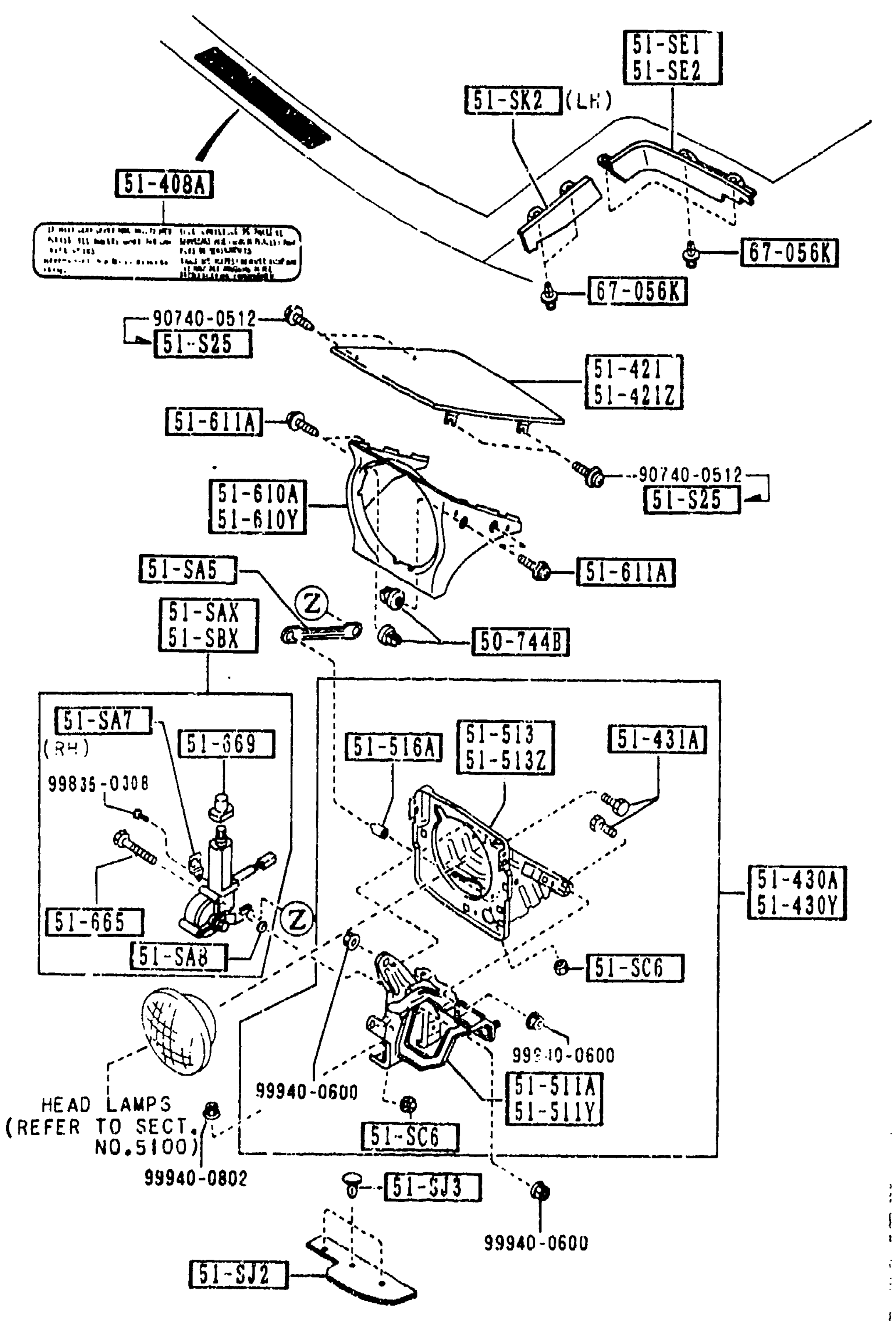

51-030
51-030Z
51-046C
87-014
87-015
51-039
51-029
87-016
51-032A
66-024

5100 -1 * HEAD LAMPS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-029 0483-66-061A	4	GROMMET,SCREW			
51-030 8BN1-51-030	1	LAMP SET(R),HEAD			
51-030Z 8BN1-51-040	1	LAMP SET(L),HEAD			
51-032A NA02-51-031	2	UNIT,HEAD LAMP			
51-039 B481-51-0E3	6	SCREW			
51-046C NA01-51-046	2	SPRING			
66-024 NA01-51-033	2	RING,RETAINING			
87-014 NA01-51-032	1	RING(R)MOUNTING			
87-015 NA01-51-034	1	RING(L)MOUNTING			
87-016 NA01-51-037	4	SCREW,ADJUST			


51-SE1
51-SE2
51-SK2 (LH)
51-408A
67-056K
67-056K
90740-0512
51-S25
51-421
51-421Z
51-611A
90740-0512
51-S25
51-610A
51-610Y
51-611A
51-SA5
Z
51-SAX
51-SBX
50-744B
51-SA7
(RH)
51-669
99835-0308
51-516A
51-513
51-513Z
51-431A
51-430A
51-430Y
51-665
51-SA8
Z
51-SC6
99940-0600
99940-0600
51-511A
51-511Y
HEAD LAMPS
(REFER TO SECT.
NO.5100)
51-SC6
99940-0802
51-SJ3
99940-0600
51-SJ2

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-744B B481-50-744	8	GROMMET,SCREW			
51-SAX NA01-51-SAX	1	MOTOR(R),RETRACTABLE HEAD			
51-SA5 NA01-51-SA5	2	ROD,RETRACTABLE			
51-SA7 NA01-51-SA7	1	BRACKET,CLIP			
51-SA8 NA01-51-SA8	6	WASHER			
51-SBX NA01-51-SBX	1	MOTOR(L),RETRACTABLE HEAD			
51-SC6 KA01-51-SC6	4	NUT,STOPPER-LAMP HINGE			
51-SE1 NA01-51-SE1	1	PROTECTOR(R),RETRA H/L			
51-SE2 NA01-51-SE2	1	PROTECTOR(L),RETRA. H/L			
51-SJ2 NA01-51-SJ2	2	PROTECTOR(L),RETRA. FRONT			
51-SJ3 NA01-51-SJ3	6	CLIP			
51-SK2 NA01-51-SK2	1	PROTECTOR(L),RETRA. SIDE			
51-S25 BS34-51-S25A	8	BOLT,LAMP LID			
51-408A NA04-51-S02	1	LABEL,COUTION-RETRACTABLE			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67-056K
67-056K
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51-S25
51-421
51-421Z
51-611A
90740-0512
51-S25
51-610A
51-610Y
51-611A
51-SA5
Z
51-SAX
51-SBX
50-744B
51-SA7
(RH)
51-669
99835-0308
51-516A
51-513
51-513Z
51-431A
51-430A
51-430Y
51-665
Z
51-SA8
51-SC6
99940-0600
99940-0600
51-511A
51-511Y
HEAD LAMPS
(REFER TO SECT.
NO.5100)
51-SC6
99940-0802
51-SJ3
99940-0600
51-SJ2

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-421		LID(R),LAMP			
NA01-51-SH1A A (NA01-51-SH1B)	1				-9601
NA01-51-SH1B	1				9601-
51-421Z		LID(L),LAMP			
NA01-51-SH2A A (NA01-51-SH2B)	1				-9601
NA01-51-SH2B	1				9601-
51-430A		HINGE(R),LID-LAMP			
NA01-51-SC0A A (NA01-51-SC0B)	1				-9926
NA01-51-SC0B	1				9926-
51-430Y		HINGE(L),LID-LAMP			
NA01-51-SD0A A (NA01-51-SD0B)	1				-9926
NA01-51-SD0B	1				9926-
51-431A		BOLT,HINGE			
KA01-51-SD7	4				
51-511A		BRACKET(R),HINGE-LAMP LID			
NA01-51-SC1A	1				
51-511Y		BRACKET(L),HINGE-LAMP LID			
NA01-51-SD1A	1				
51-513		HOUSING(R),LAMP-LID HINGE			
NA01-51-SC5A A (NA01-51-SC5B)	1				-9926
NA01-51-SC5B	1				9926-
51-513Z		HOUSING(L),LAMP-LID HINGE			
NA01-51-SD5A A (NA01-51-SD5B)	1				-9926
NA01-51-SD5B	1				9926-
51-516A		CAP,HINGE-H.L.RETRACTABLE			
KA01-51-SD6	2				

9601 NA35MM-106797
9926 NA35MM-122894

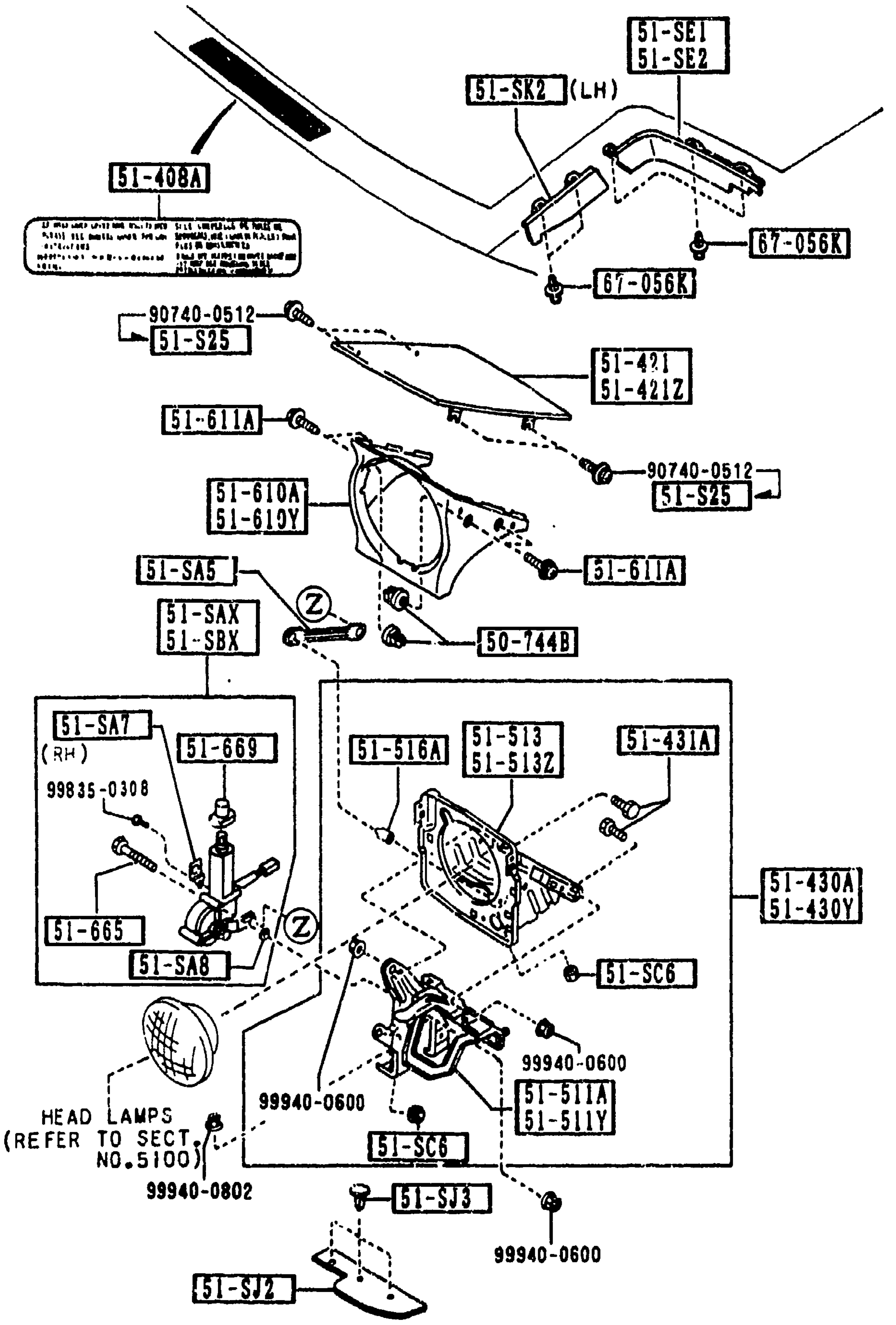
SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS
2-E05	5000	FRONT BUMPER
2-H05	5010	REAR BUMPER
2-J05	5030	WINDOW MOULDING & COWL GRILLES
2-L05	5100	HEAD LAMPS
2-M05	5103	HEAD LAMP RETRACTORS
2-D06	5105	FRONT COMBINATION LAMPS
2-F06	5110	REAR COMBINATION LAMPS
2-I06	5120	LICENSE LAMPS
2-J06	5180	REAR FINISHER
2-L06	5230	BONNET
2-N06	5260	TRUNK LID
2-D07	5310	BODY PANELS (FRONT)
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)
2-H07	5330	BODY PANELS (DASH & COWL PANEL)
2-I07	5340	BODY PANELS (SIDE)
2-C08	5370	BODY PANELS (FLOOR)
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)
2-G08	5390	FLOOR ATTACHMENTS
2-C09	5500	DASHBOARD EQUIPMENTS
2-E09	5520	METER HOOD
2-F09	5530	SPEEDOMETER CABLE
2-G09	5540	METER COMPONENTS
2-I09	5560	DASHBOARD & RELATED PARTS
2-L09	5570	CONSOLE
2-C10	5580	VENTILATOR
2-D10	5700	SEATS
2-K10	5790	SEAT BELTS
2-L10	5800	FRONT DOORS
2-C11	5830	FRONT DOOR MECHANISMS
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS
2-C12	6100	HEATER
2-D12	6110	HEATER UNIT COMPONENTS
2-E12	6115	HEATER CONTROLS COMPONENTS
2-F12	6120	HEATER BLOWER COMPONENTS
2-G12	6130	AIR CONDITIONER
2-K12	6135	O RING SET,PIPING
2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)
2-N12	6150	COOLING UNIT (AIR CONDITIONER)
2-C13	6300	WINDOW GLASSES
2-D13	6330	SUNROOF
2-M13	6600	SWITCHES & RELAYS (ENGINE)
2-[illegible]	6610	DASHBOARD SWITCHES
2-E1[illegible]	6611	COMBINATION SWITCH
2-F14	6630	RELAYS & UNIT (BODY)
2-G14	6635	DOOR SWITCH & HORNS
2-H14	6640	AUTO CRUISE CONTROL SYSTEM
2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)
2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)
2-L14	6700	WIRING HARNESSES(FRONT & REAR)
2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)
2-D15	6702	WIRING HARNESSES(DASHBOARD)
2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)
2-F15	6704	WIRING HARNESS CLAMPS
2-I15	6720	WINDSHIELD WASHER
2-K15	6730	WINDSHIELD WIPERS
2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)
2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS
2-C16	6840	TRIMS & SCUFF PLATES
2-E16	6860	FLOOR MATS & PADS
2-G16	6870	SERVICE TOOLS
2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS
2-J16	6930	CAUTION PLATES & LABELS
2-L16	7250	QUARTER WINDOW & TRIMS
3-C03	7900	ACCESSORIES

CATLOG-NO= AUNA01-07

DATE. 1992-02

5103 HEAD LAMP RETRACTORS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51-SE2
51-SK2 (LH)
51-408A
67-056K
67-056K
90740-0512
51-S25
51-421
51-421Z
51-611A
90740-0512
51-S25
51-610A
51-610Y
51-611A
51-SA5
51-SAX
51-SBX
50-744B
51-SA7
(RH)
51-669
99835-0308
51-665
51-SA8
51-516A
51-513
51-513Z
51-431A
51-430A
51-430Y
51-SC6
99940-0600
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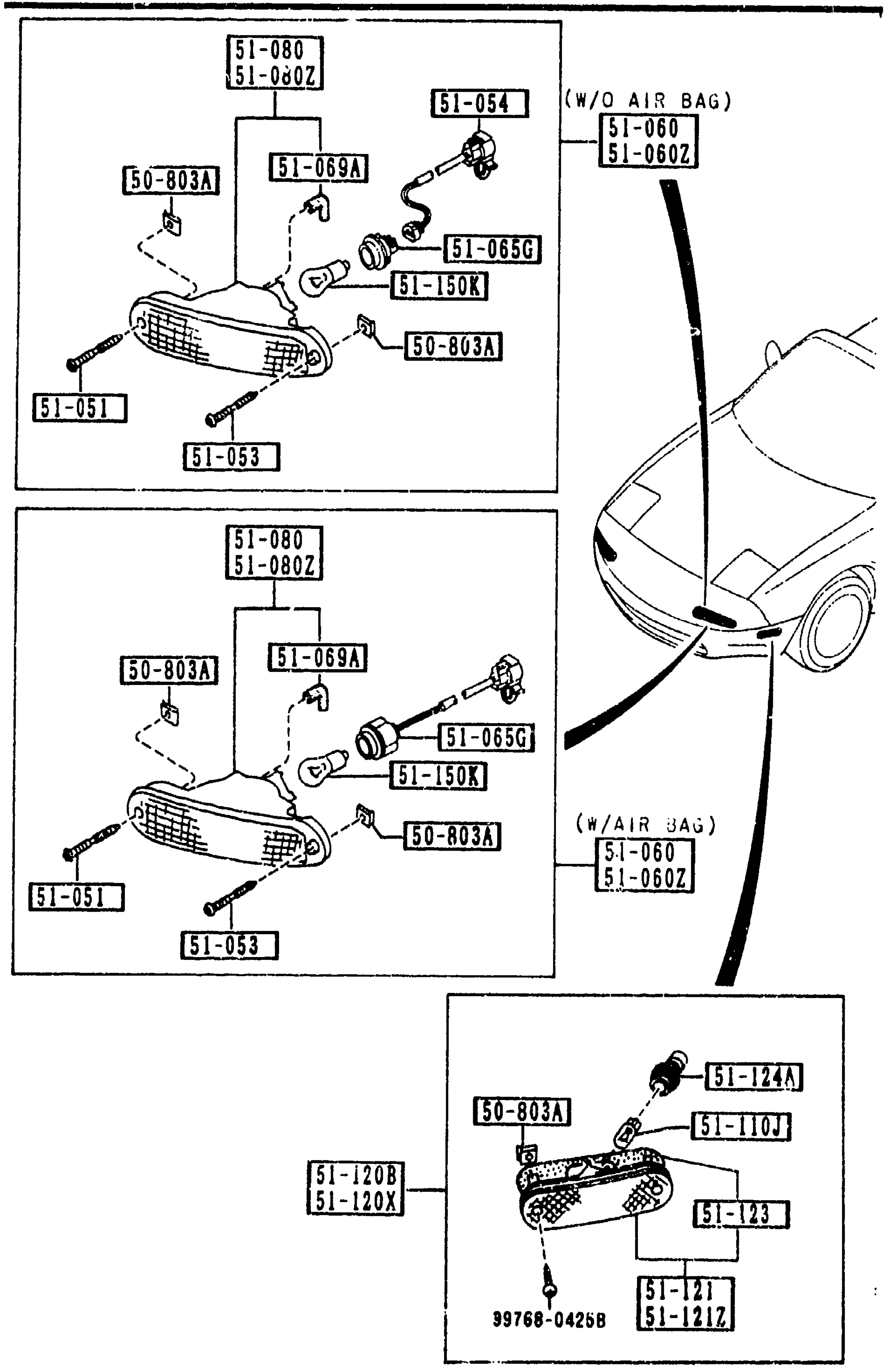
51-511A
51-511Y
51-SC6
HEAD LAMPS
(REFER TO SECT.
NO.5100)
99940-0802
51-SJ3
99940-0600
51-SJ2

5103 -3 * HEAD LAMP RETRACTORS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-610A NA01-50-741	1	BEZEL(R),HEAD LAMP			
51-610Y NA01-50-751	1	BEZEL(L),HEAD LAMP			
51-611A B481-50-75X	8	SCREW,HEAD LAMP BEZEL			
51-665 FB01-51-665	6	BOLT,MOTOR-RETRACT H/LAMP			
51-669 NA01-51-669	2	BOOTS,MOTOR-RETRACT H/L			
67-056K UB39-50-795	8	RIVET			

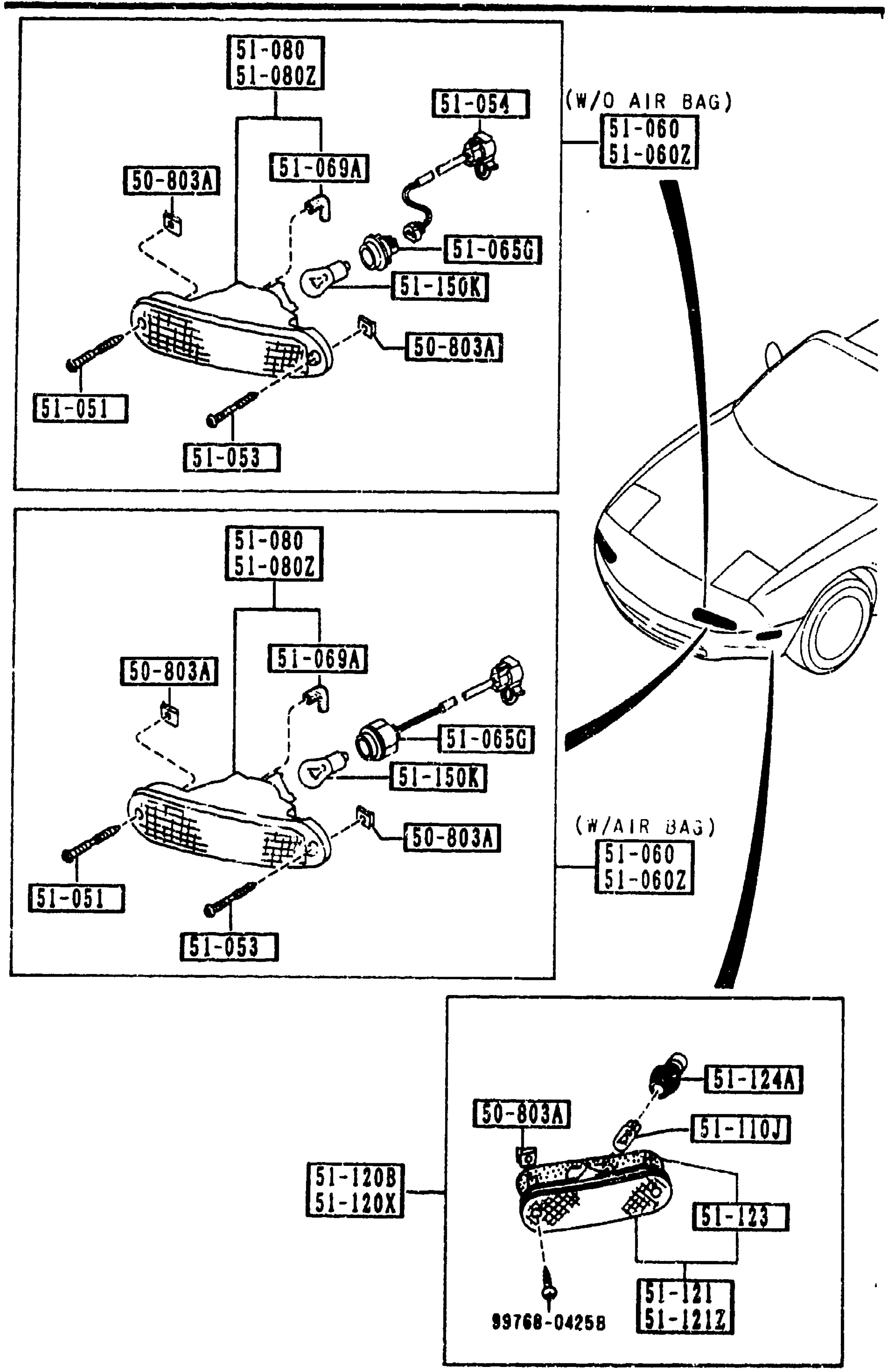

51-080
51-080Z
51-054
(W/O AIR BAG)
51-060
51-060Z
50-803A
51-069A
51-065G
51-150K
50-803A
51-051
51-053
51-080
51-080Z
50-803A
51-069A
51-065G
51-150K
50-803A
(W/AIR BAG)
51-060
51-060Z
51-051
51-053
51-124A
50-803A
51-110J
51-120B
51-120X
51-123
51-121
51-121Z
99768-0426B

5105 -1 FRONT COMBINATION LAMPS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-803A		NUT,SIDE PROTECTOR			
G158-50-803	8				
51-051		SCREW			
NA01-51-051	2				-0301
51-053		SCREW			
NA01-51-053	2				-0301
51-054		CORD,FRONT COMB.			
NA07-51-054	2	(W/O AIR BAG)			0701-
51-060		LAMP SET(R),FRT COMB			
8BN1-51-060	1	(W/AIR BAG)			
8BN2-51-060	1	(W/O AIR BAG)			0701-
51-0602		LAMP SET(L),FRT COMB			
8BN1-51-070	1	(W/AIR BAG)			
8BN2-51-070	1	(W/O AIR BAG)			0701-
51-065G		SOCKET,F. COMB. LAMP			
NA01-51-064	2	(W/AIR BAG)			
NA07-51-064	2	(W/O AIR BAG)			0701-
51-069A		TUBE,HEAD LAMP			
NA01-51-069	2				
51-080		LENS & HOUSING(R)			
NA01-51-06X A (NA01-51-06XA)	1				-9601
NA01-51-06XA	1				9601-
51-080Z		LENS & HOUSING(L)			
NA01-51-07X A (NA01-51-07XA)	1				-9601
NA01-51-07XA	1				9601-
51-110J		BULB			
99701-6038	2	12V 3.8W			

9601 NA35**-106797
0301 NA35**-141901
0701 NA35**-200041

5105 FRONT COMBINATION LAMPS

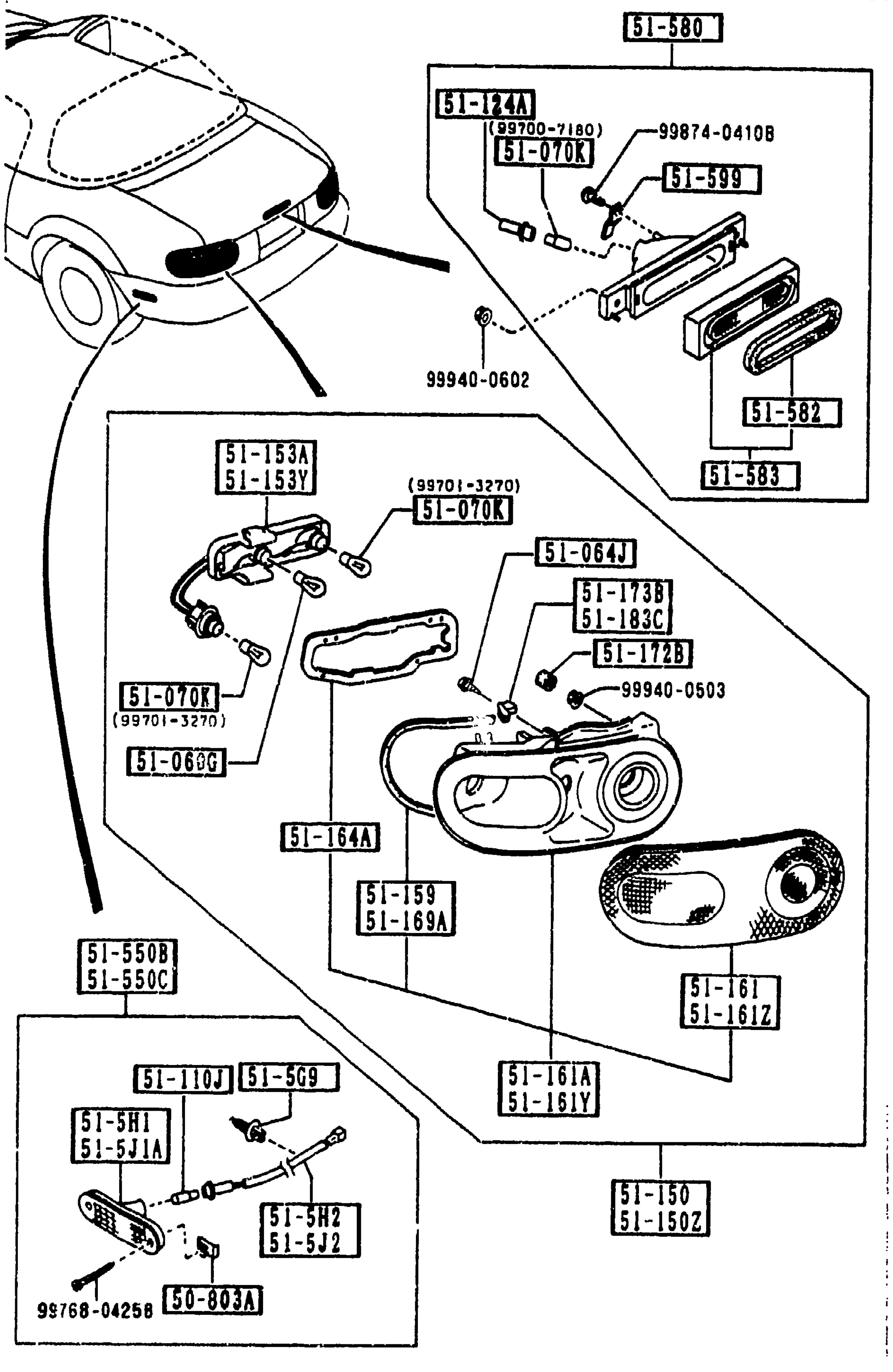

51-080
51-080Z
51-054
(W/O AIR BAG)
51-060
51-060Z
50-803A
51-069A
51-065G
51-150K
50-803A
51-051
51-053
51-080
51-080Z
50-803A
51-069A
51-065G
51-150K
50-803A
(W/AIR BAG)
51-060
51-060Z
51-051
51-053
51-124A
50-803A
51-110J
51-120B
51-120X
51-123
51-121
51-121Z
99768-0425B

5105 -2 * FRONT COMBINATION LAMPS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-120B		LAMP SET(R),SIDE TUR			
8BN1-51-120	1				
51-120X		LAMP SET(L),SIDE TUR			
8BN1-51-130	1				
51-121		LENS & BODY(R)			
NA01-51-5E1B A (NA01-51-5E1C)	1				-9401
NA01-51-5E1C	1				9401-9901
NA01-51-5EX	1				9901-
51-121Z		LENS & BODY(L)			
NA01-51-5F1B A (NA01-51-5F1C)	1				-9401
NA01-51-5F1C	1				9401-9901
NA01-51-5FX	1				9901-
51-123		GASKET,SIDE TURN			
NA01-51-5D3	2				9901-
51-124A		SOCKET,SIDE TURN			
NA01-51-5E2	2				
51-150K		BULB			
99701-4278Y	2	A12V 27/8W			

9401 NA35**-100090
9901 NA35**-119257

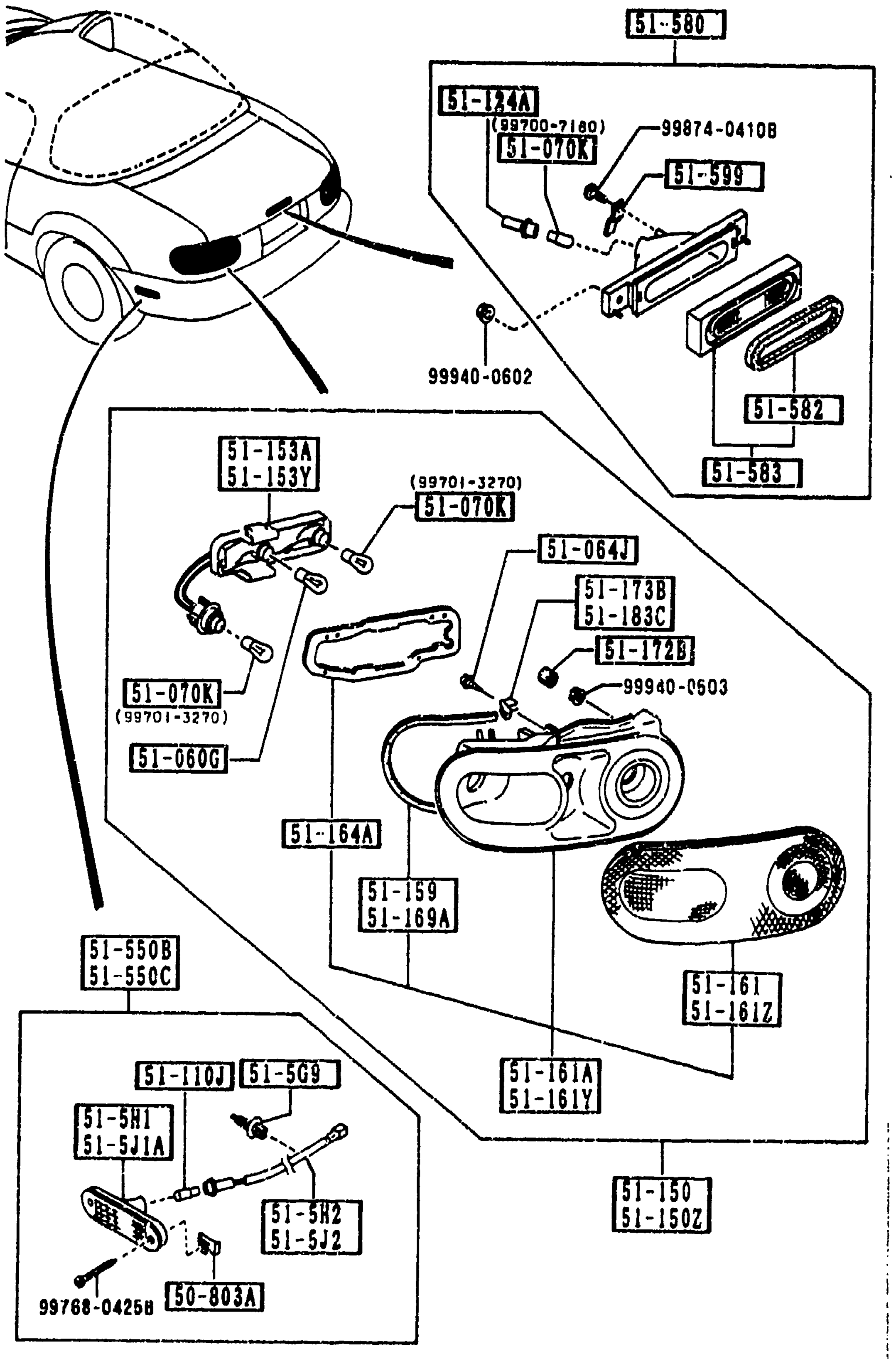
5110 REAR COMBINATION LAMPS


51-580
51-124A
(99700-7180)
51-070K
99874-0410B
51-599
99940-0602
51-582
51-583
51-153A
51-153Y
(99701-3270)
51-070K
51-064J
51-173B
51-183C
51-172B
99940-0503
51-070K
(99701-3270)
51-060G
51-164A
51-159
51-169A
51-161
51-161Z
51-161A
51-161Y
51-550B
51-550C
51-110J
51-5G9
51-5H1
51-5J1A
51-5H2
51-5J2
99768-04258
50-803A
51-150
51-150Z

5110 -1 REAR COMBINATION LAMPS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-803A		NUT,SIDE PROTECTOR			
G158-50-803	4				
51-060G		BULB			
99701-4278	2	12V 27W/8W			
51-064J		SCREW,TAPPING			
NA01-51-1E6	2				
51-070K		BULB			
99700-7180	1	A12V 18.4W			
99701-3270	4	12V 27W			
51-110J		BULB			
99701-6038	2	12V 3.8W			
51-124A		SOCKET,SIDE TURN			
BJ38-51-584	1				
51-150		LAMP SET(R),RR.COMB.			
8BN1-51-150	1				
51-150Z		LAMP SET(L),RR.COMB.			
8BN1-51-160	1				
51-153A		SOCKET(R),RR.COMB.			
N001-51-155A	1				
51-153Y		SOCKET(L),RR.COMB.			
N001-51-165A	1				
51-159		PROTECTOR(R),'A'			
NA01-51-159	1				
51-161		LENS(R),RR.COMB.			
NA01-51-15XB	1				
51-161A		LENS & BODY(R),RR COMB.			

5110 REAR COMBINATION LAMPS

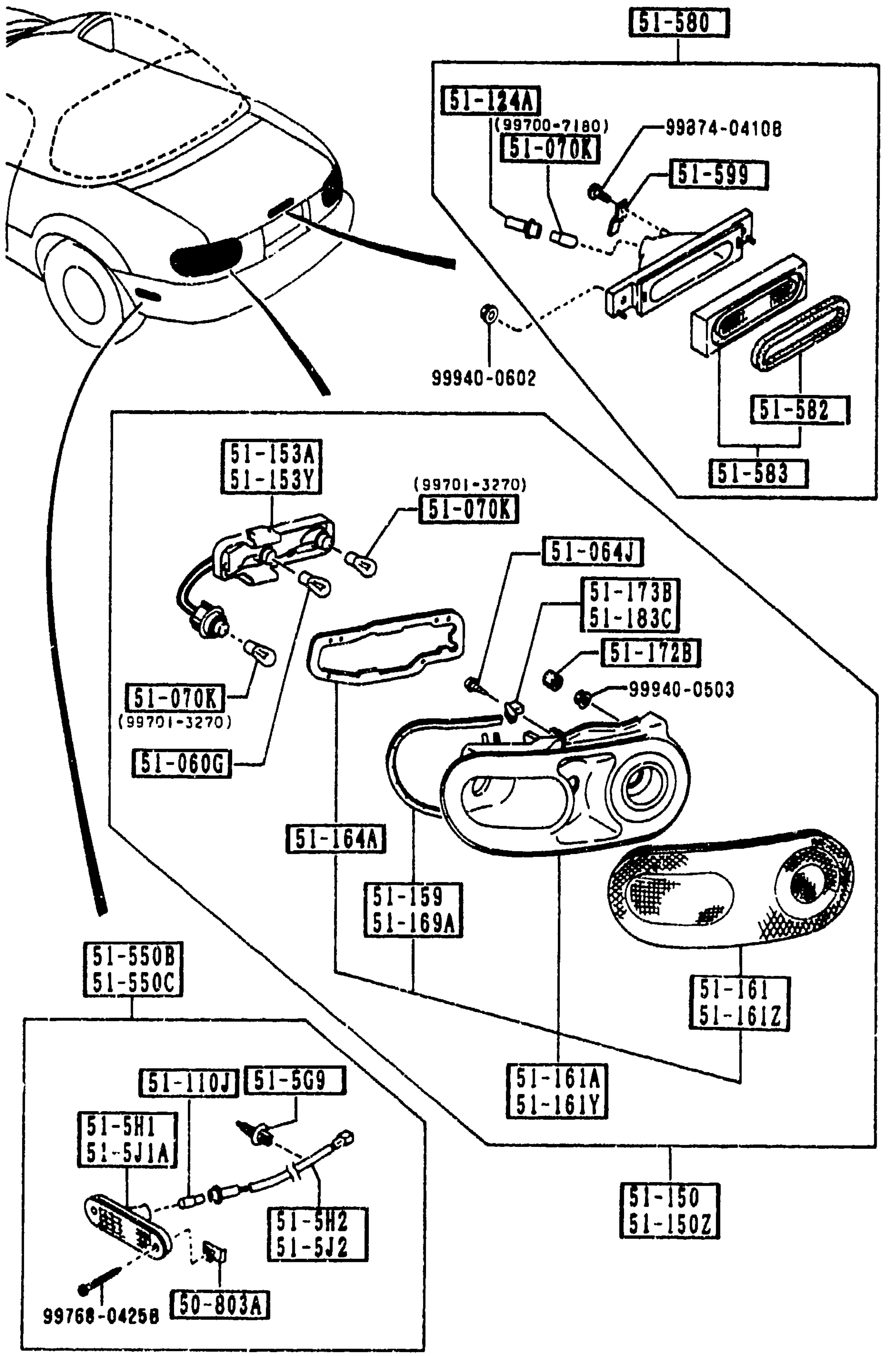

51-580
51-124A
(99700-7180)
51-070K
99874-0410B
51-599
99940-0602
51-582
51-583
51-153A
51-153Y
(99701-3270)
51-070K
51-064J
51-173B
51-183C
51-172B
99940-0603
51-070K
(99701-3270)
51-060G
51-164A
51-159
51-169A
51-161
51-161Z
51-550B
51-550C
51-110J
51-5G9
51-161A
51-161Y
51-5H1
51-5J1A
51-5H2
51-5J2
51-150
51-150Z
99768-0425B
50-803A

5110 -2 REAR COMBINATION LAMPS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-51-170B	1				
51-161Y NA01-51-180B	1	LENS & BODY(L),RR COMB.			
51-161Z NA01-51-16XB	1	LENS(L),RR.COMB.			
51-164A NA01-51-158	2	GASKET,RR.COMB.			
51-169A NA01-51-169	1	PROTECTOR(L),'A'			
51-172B G030-51-172	3	CAP			
51-173B NA01-51-173	1	PROTECTOR(R),'B'			
51-183C NA01-51-183	1	PROTECTOR(L),'B'			
51-5G9 NA01-51-5G9	8	CLIP			
51-5H1 NA01-51-5H1A A (NA01-51-5H1B)	1	LENS & BODY(R),RR SIDE TURN			-9401
NA01-51-5H1B	1				9401-
51-5H2 NA01-51-5H2A	1	SOCKET(R),RR SIDE TURN			
51-5J1A NA01-51-5J1A A (NA01-51-5J1B)	1	LENS & BODY(L),RR SIDE TURN			-9401
NA01-51-5J1B	1				9401-
51-5J2 NA01-51-5J2A	1	SOCKET(L),RR SIDE TURN			

9401 NA35**-100090

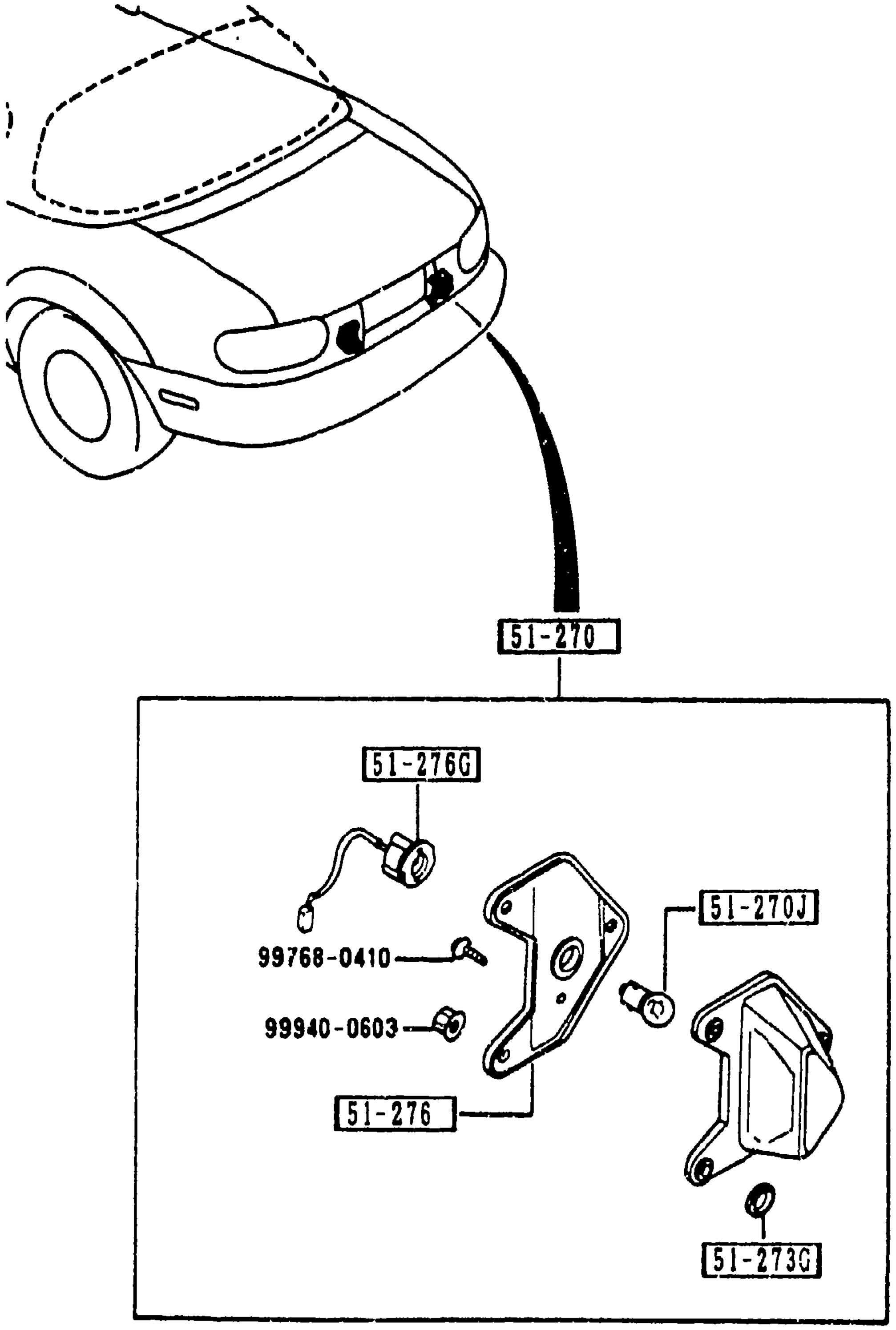
5110 REAR COMBINATION LAMPS


51-580
51-124A
(99700-7180)
51-070K
99874-0410B
51-599
99940-0602
51-582
51-583
51-153A
51-153Y
(99701-3270)
51-070K
51-064J
51-173B
51-183C
51-172B
99940-0503
51-070K
(99701-3270)
51-060G
51-164A
51-159
51-169A
51-161
51-161Z
51-161A
51-161Y
51-150
51-150Z
51-550B
51-550C
51-110J
51-5G9
51-5H1
51-5J1A
51-5H2
51-5J2
99768-04258
50-803A

5110 -3 M REAR COMBINATION LAMPS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-550B 8BN1-51-550	1	LAMP SET(R),SIDE TURN-RR			
51-550C 8BN1-51-560	1	LAMP SET(L),SIDE TURN-RR			
51-580 NA01-51-580B	1	LAMP,STOP-HI.MOUNT.			
51-582 NA01-51-592B	1	GASKET,STOP LAMP-HI.MOUNT			
51-583 NA01-51-58XA	1	LENS,STOP LAMP-HI.MOUNT			
51-599 NA01-51-599	1	FASTENER,STOP LAMP-HI.			

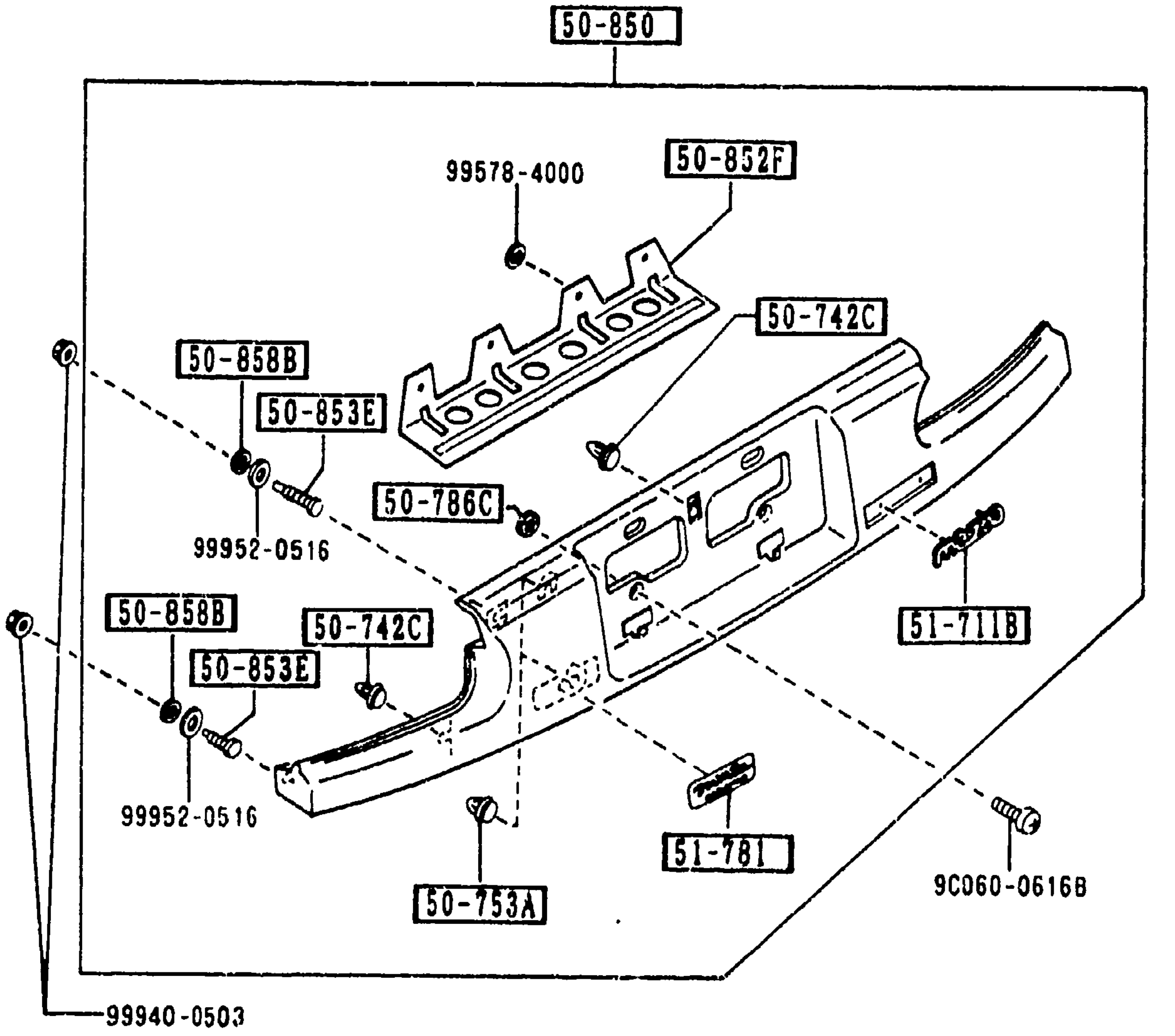
5120 LICENSE LAMPS


51-270
51-276G
51-270J
99768-0410
99940-0603
51-276
51-273G

5120 -1 M LICENSE LAMPS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-270		LAMP,LICENSE			
8BF1-51-270	2				
51-270J		BULB			
99701-2070	2	12V 7.5W			
51-273G		GASKET,LICENSE LAMP			
FB67-51-273	2				
51-276		SHADE,LAMP-LICENSE			
FB67-51-276	2				
51-276G		SOCKET,LICENSE LAMP			
FB67-51-272	2				

5180 REAR FINISHER

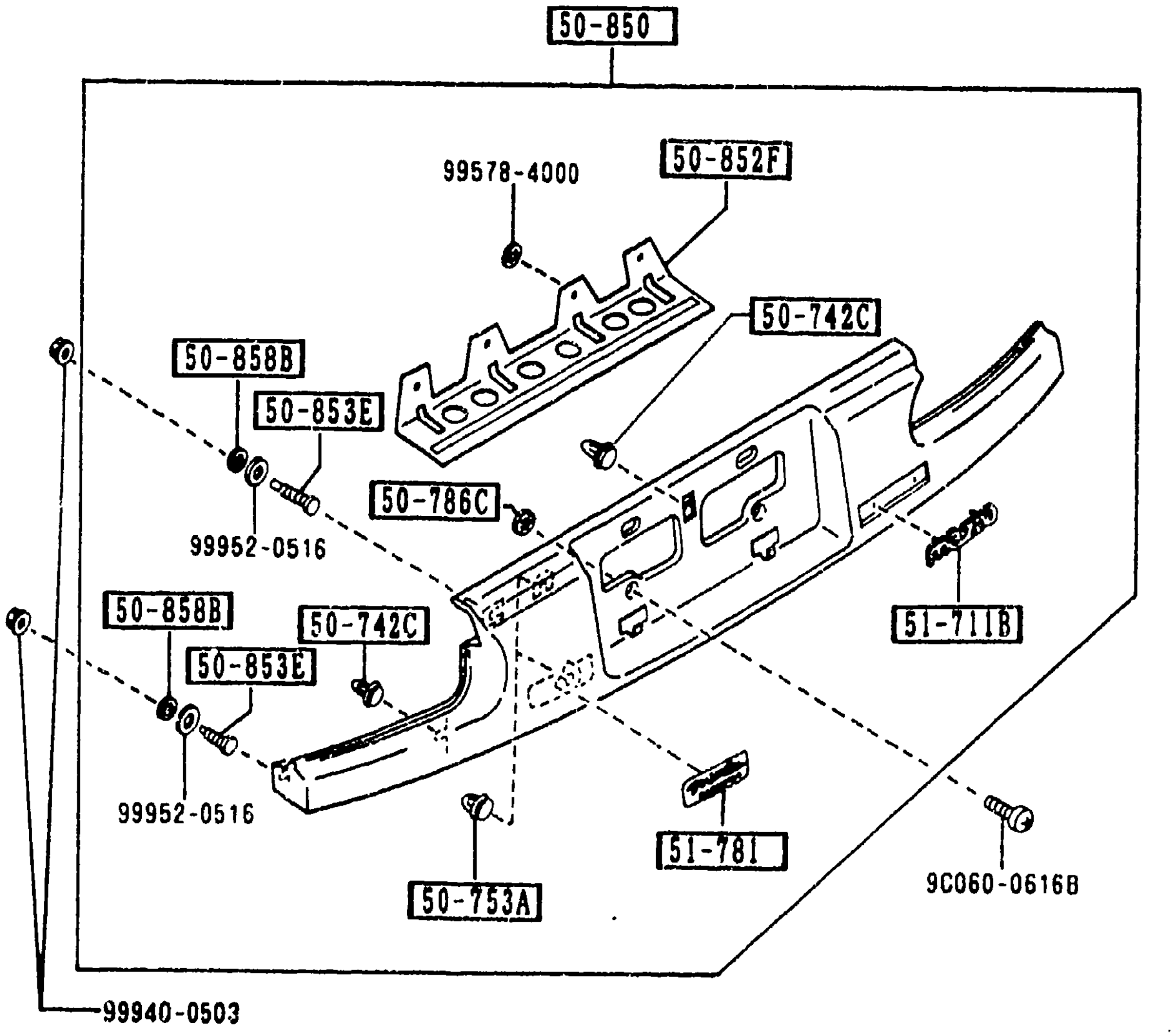

50-850
99578-4000
50-852F
50-742C
50-858B
50-853E
50-786C
99952-0516
51-711B
50-858B
50-742C
50-853E
99952-0516
51-781
9C060-0616B
50-753A
99940-0503

5180 -1 REAR FINISHER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-742C		CLIP			
G043-50-742	3				
50-753A		FASTENER			
G043-50-753	4				
50-786C		GASKET			
G030-50-786	2				
50-850		FINISHER,REAR			
NA01-50-850A A (NA01-50-850C)	1				-9901
DU		DU MARINER BLUE			
SU		SU CLASSIC RED			
UC		UC CRYSTAL WHITE			
3L		3L SILVER STONE METALLIC			
NA01-50-850C A (NA01-50-850D)	1				9901-9914
DU		DU MARINER BLUE			
SU		SU CLASSIC RED			
UC		UC CRYSTAL WHITE			
3L		3L SILVER STONE METALLIC			
NA01-50-850D	1				9914-
DU		DU MARINER BLUE			
HU		HU NEO GREEN			
SU		SU CLASSIC RED			
UC		UC CRYSTAL WHITE			
3L		3L SILVER STONE METALLIC DU SILVER STONE METALLIC HU SILVER STONE METALLIC SU SILVER STONE METALLIC UC SILVER STONE METALLIC 3L SILVER STONE METALLIC			
50-852F		REINFORCEMENT			
NA01-50-852	1				

9901 NA35**-119257
9914 NA35**-120856

5180 REAR FINISHER


50-850
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50-852F
50-742C
50-858B
50-853E
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50-786C
51-711B
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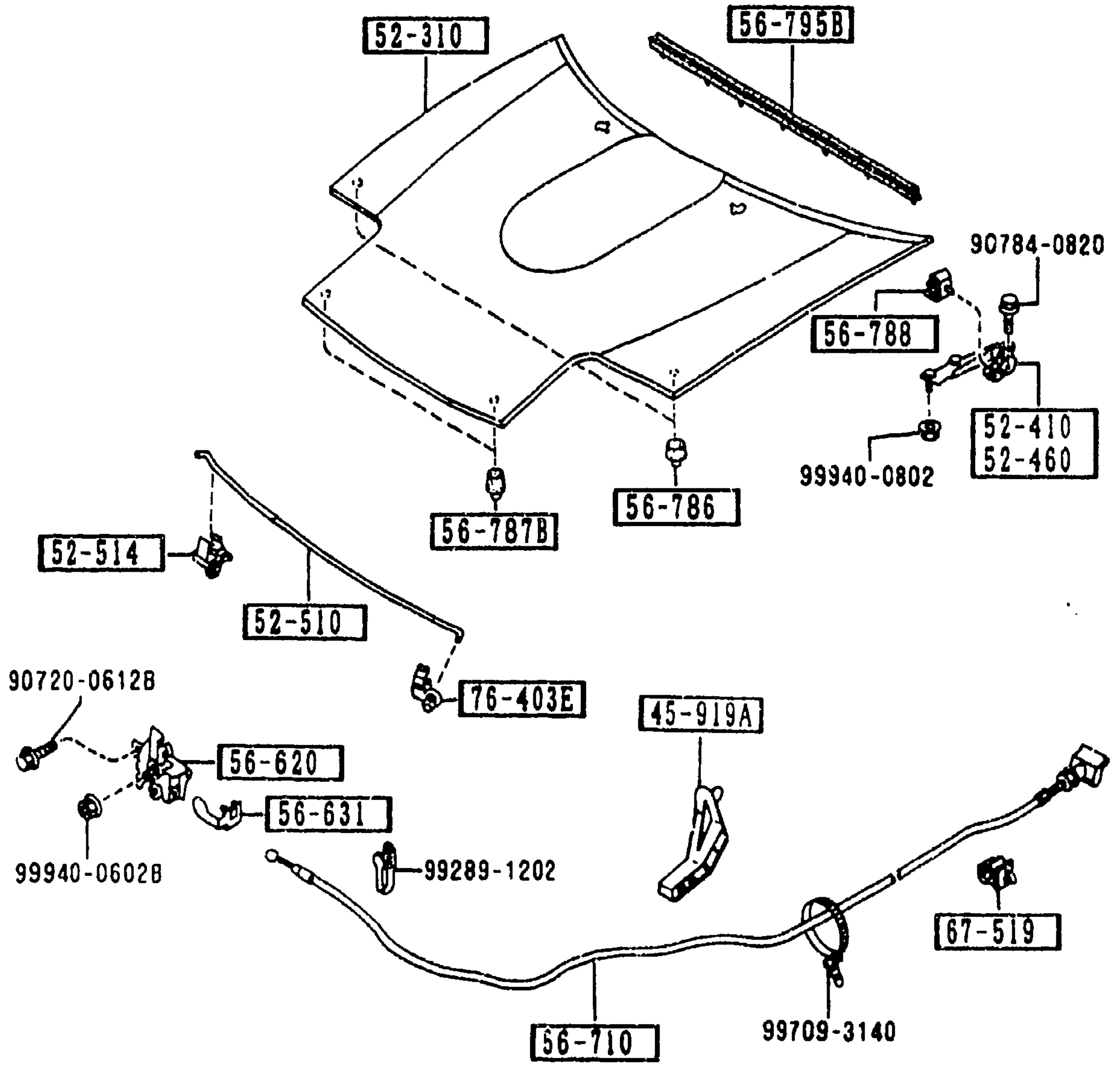
50-742C
50-853E
99952-0516
50-753A
51-781
9C060-0616B
99940-0503

5180 -2 * REAR FINISHER

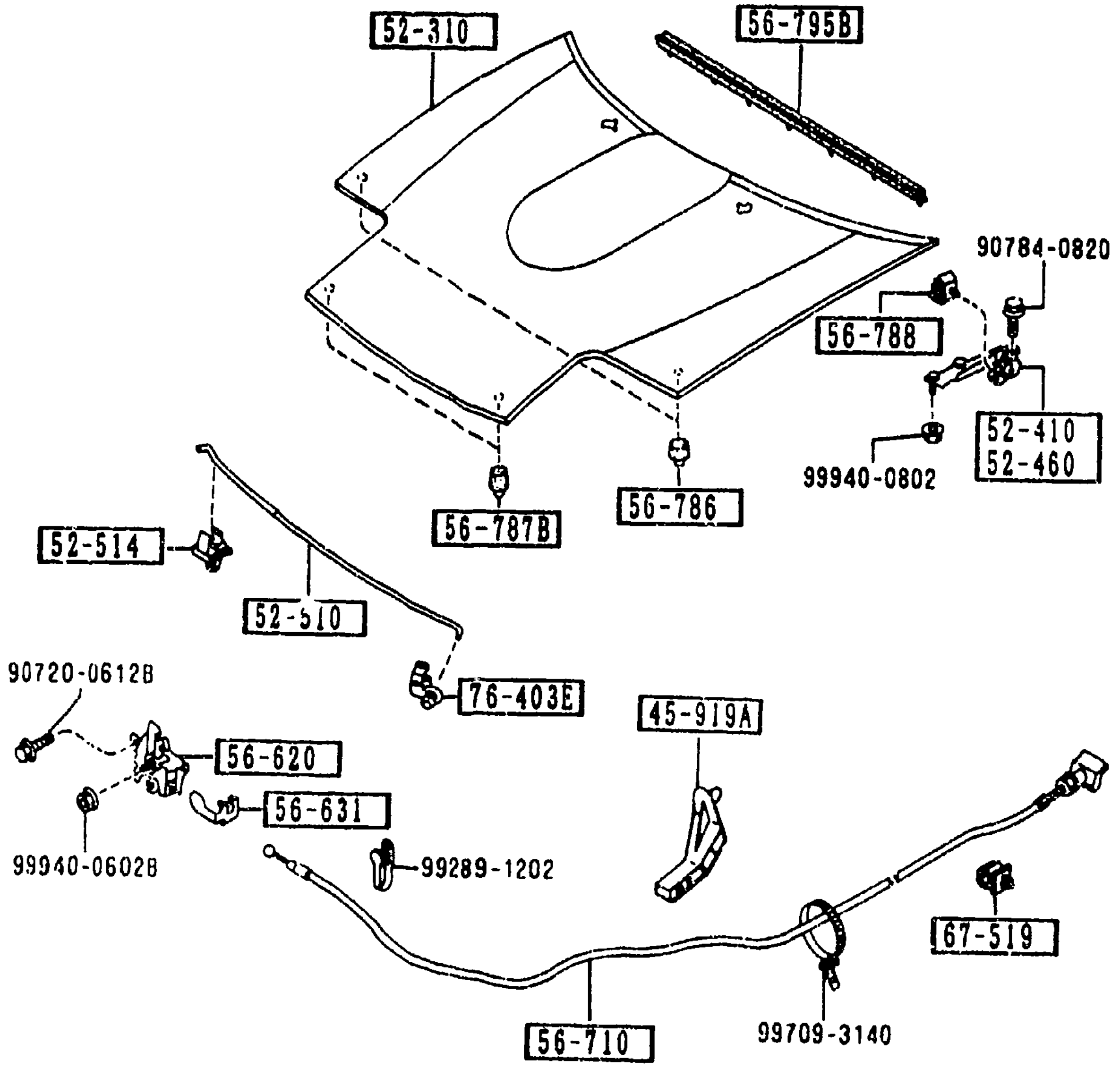
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-853E		BOLT,GARNISH-RR			
LA01-50-853	4				
50-858B		GASKET,REAR FINISHER			
B388-50-855	4				
51-711B		ORNAMENT,MAKER NAME-REAR			
NA01-51-711	1				
51-781		ORNAMENT,REAR			
NA01-51-721	1				


52-310
56-795B
90784-0820
56-788
52-410
52-460
99940-0802
56-786
56-787B
52-514
52-510
76-403E
90720-0612B
56-620
45-919A
56-631
99940-0602B
99289-1202
67-519
56-710
99709-3140

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
45-919A		HOLDER,PIPE			
H115-45-916A	1				
52-310		BONNET			
NAY1-52-310 A (NAY1-52-310A)	1				-9406
NAY1-52-310A	1				9406-
52-410		HINGE(R),BONNET			
NA01-52-410A	1				
52-460		HINGE(L),BONNET			
NA01-52-420A	1				
52-510		STAY,BONNET			
NA01-56-650	1				
52-514		HOLDER,ROD			
G030-56-693	1				
56-620		LOCK,BONNET			
NA01-56-620A	1				
56-631		FASTENER,BONNET RELEASE			
LA01-56-631	1				
56-710		WIRE,RELEASE-BONNET			
NA01-56-720A A (NA01-56-720B)	1				-9601
NA01-56-720B AN(NA01-56-720C)	1				9601-9C01
NA01-56-720C	1				9C01-
56-786		RUBBER(C),CUSHION-BONNET			
NA01-56-787	2				
56-787B		RUBBER,CUSHION-BONNET FRT			
FB01-56-787A	2				
56-788		RUBBER,CUSHION-BONNET RR			
NA01-56-78X	2				

9406 NA35**-100142
9601 NA35**-106797
9C01 NA35**-130310

5230 BONNET

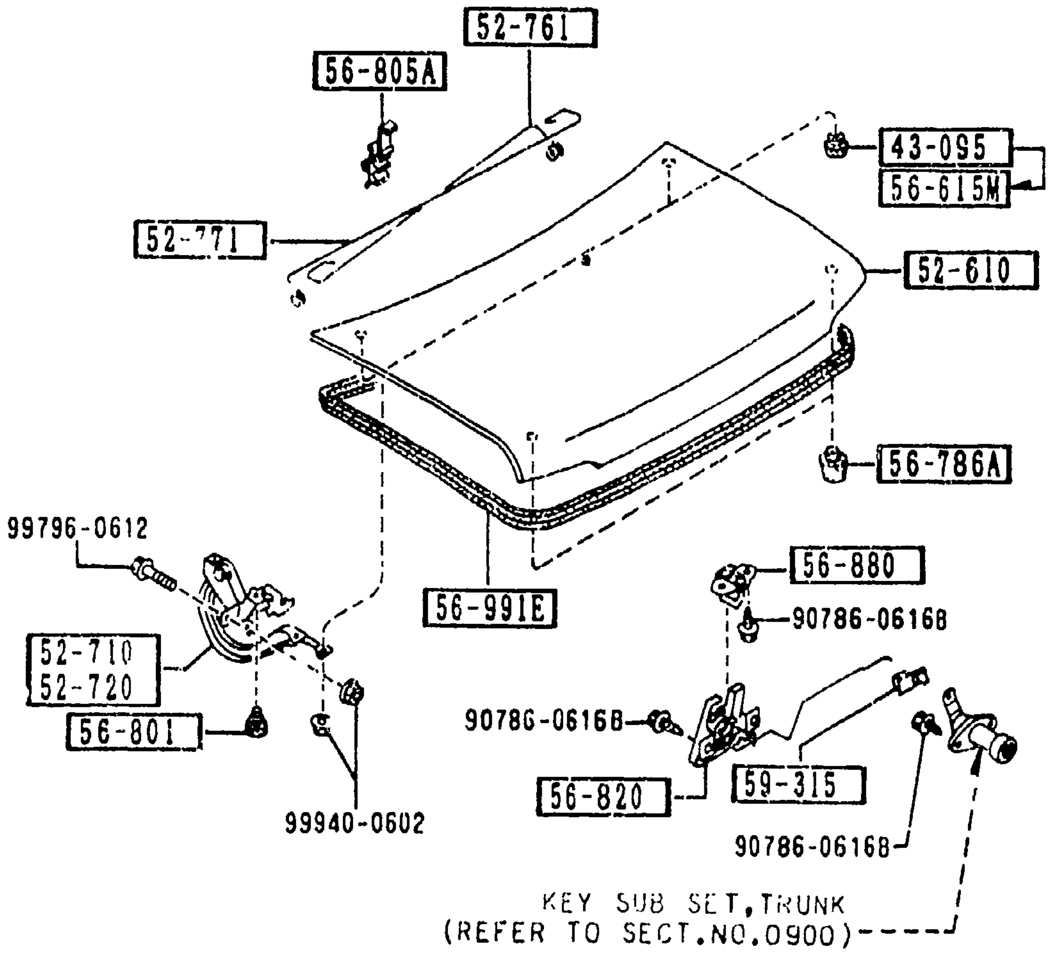


52-310
56-795B
90784-0820
56-788
52-410
52-460
99940-0802
56-786
56-787B
52-514
52-510
76-403E
45-919A
90720-0612B
56-620
56-631
99940-0602B
99289-1202
67-519
56-710
99709-3140

5230 -2 * BONNET

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-795B		WEATHERSTRIP,BONNET-REAR			
NA01-56-760	1				
67-519		CLIP,PIPE			
G030-67-519	1				
76-403E		HOLDER,ROD			
B092-52-518	1				

5260 TRUNK LID


52-761
56-805A
43-095
56-615M
52-771
52-610
56-786A
99796-0612
56-880
90786-06168
56-991E
52-710
52-720
56-801
90786-06168
99940-0602
56-820
59-315
90786-06168
KEY SUB SET,TRUNK
(REFER TO SECT.NO.0900)

5260 -1 TRUNK LID

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
43-095		GROMMET			
H001-43-095	2				-9516
52-610		LID,TRUNK			
NAY1-52-610	1				
52-710		HINGE(R),TRUNK LID			
NA01-52-710 AN(NA01-52-710A)	1				-9901
NA01-52-710A	1				9901-
52-720		HINGE(L),TRUNK LID			
NA01-52-720 AN(NA01-52-720A)	1				-9901
NA01-52-720A	1				9901-
52-761		SPRING(R),BALANCE			
NA01-52-791A	1				
52-771		SPRING(L),BALANCE			
NA01-52-792A	1				
56-615M		PLUG,DRAIN			
NA01-56-051	2				9516-
56-786A		RUBBER,CUSHION			
NA01-56-784	2				-9A04
B481-56-786	2				9A04-
56-801		CUSHION,LID HINGE			
NA01-56-802	2				-9C01
NA01-56-803	2				9C01-
56-805A		HOLDER,BALANCE SPRING			
NA01-56-805	1				
56-820		LOCK,LID			
NA01-56-820 A (NA01-56-820A)	1				-9901
NA01-56-820A	1				9901-

9516 NA35**-103924
9901 NA35**-119257
9A04 NA35**-123222
9C01 NA35**-130310

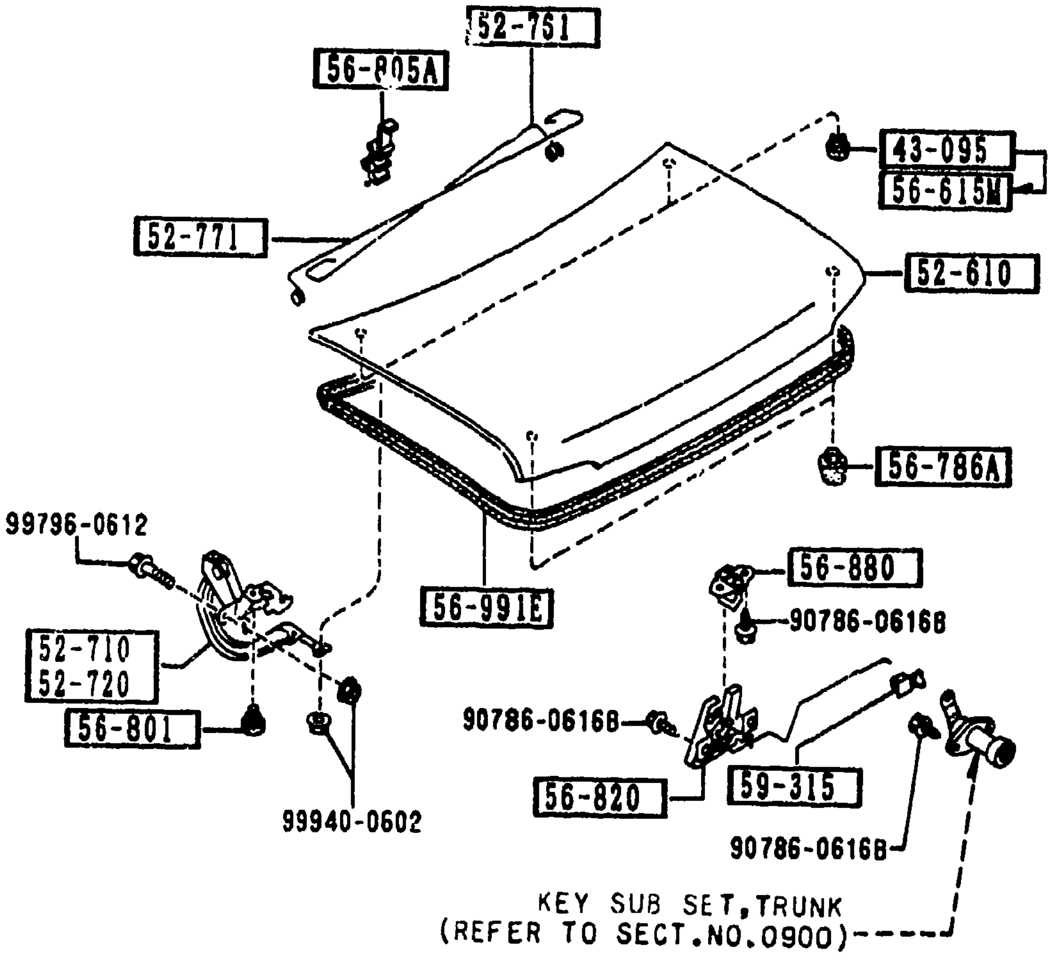
SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET,PIPING			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)			
2-M05	5103	HEAD LAMP RETRACTORS	2-N12	6150	COOLING UNIT (AIR CONDITIONER)			
2-D06	5105	FRONT COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
2-F06	5110	REAR COMBINATION LAMPS	2-D13	6330	SUNROOF			
2-I06	5120	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-J06	5180	REAR FINISHER	2-D14	6610	DASHBOARD SWITCHES			
2-L06	5230	BONNET	2-E14	6611	COMBINATION SWITCH			
2-N06	5260	TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)			
2-D07	5310	BODY PANELS (FRONT)	2-G14	6635	DOOR SWITCH & HORNS			
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL)	2-[illegible]	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)			
2-I07	5340	BODY PANELS (SIDE)	2-K1[illegible]	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)			
2-C08	5370	BODY PANELS (FLOOR)	2-L14	6700	WIRING HARNESSES(FRONT & REAR)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)	2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)			
2-G08	5390	FLOOR ATTACHMENTS	2-D15	6702	WIRING HARNESSES(DASHBOARD)			
2-C09	5500	DASHBOARD EQUIPMENTS	2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)			
2-E09	5520	METER HOOD	2-F15	6704	WIRING HARNESS CLAMPS			
2-F09	5530	SPEEDOMETER CABLE	2-I15	6720	WINDSHIELD WASHER			
2-G09	5540	METER COMPONENTS	2-K15	6730	WINDSHIELD WIPERS			
2-I09	5560	DASHBOARD & RELATED PARTS	2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)			
2-L09	5570	CONSOLE	2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS			
2-C10	5580	VENTILATOR	2-C16	6840	TRIMS & SCUFF PLATES			
2-D10	5700	SEATS	2-E16	6860	FLOOR MATS & PADS			
2-K10	5790	SEAT BELTS	2-G16	6870	SERVICE TOOLS			
2-L10	5800	FRONT DOORS	2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS			
2-C11	5830	FRONT DOOR MECHANISMS	2-J16	6930	CAUTION PLATES & LABELS			
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS	2-L16	7250	QUARTER WINDOW & TRIMS			
2-C12	6100	HEATER						
2-D12	6110	HEATER UNIT COMPONENTS						

CATLOG-NO= AUNA01-07

DATE. 1992-02

5260 TRUNK LID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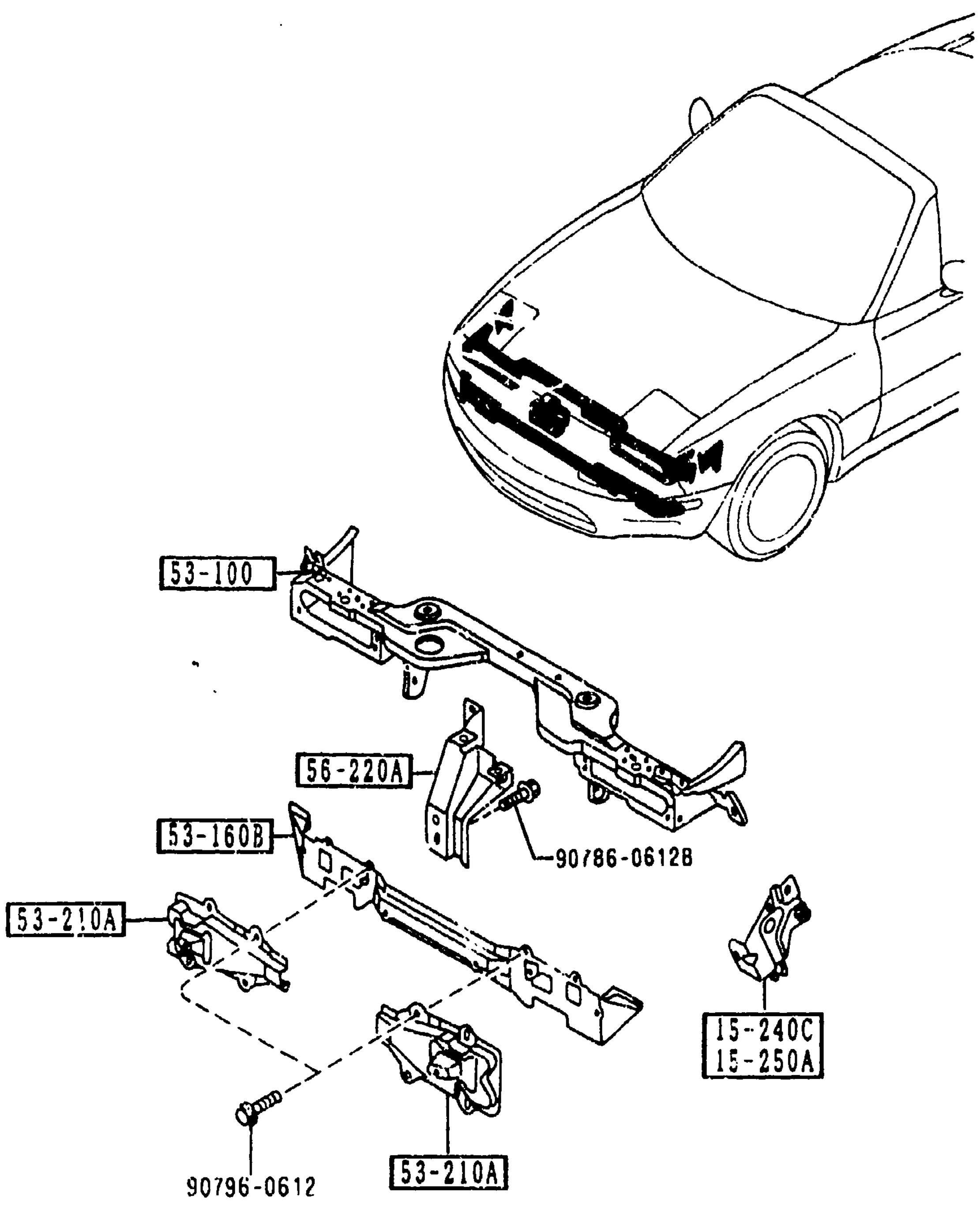
52-720
56-801
90786-06168
99940-0602
56-820
59-315
90786-06168
KEY SUB SET,TRUNK
(REFER TO SECT.NO.0900)

5260 -2 * TRUNK LID

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-880		STRIKER,LID			
NA01-56-840	1				
56-991E		WEATHERSTRIP,LID			
NA01-56-951	1				
59-315		CLIP			
G030-59-315	1				

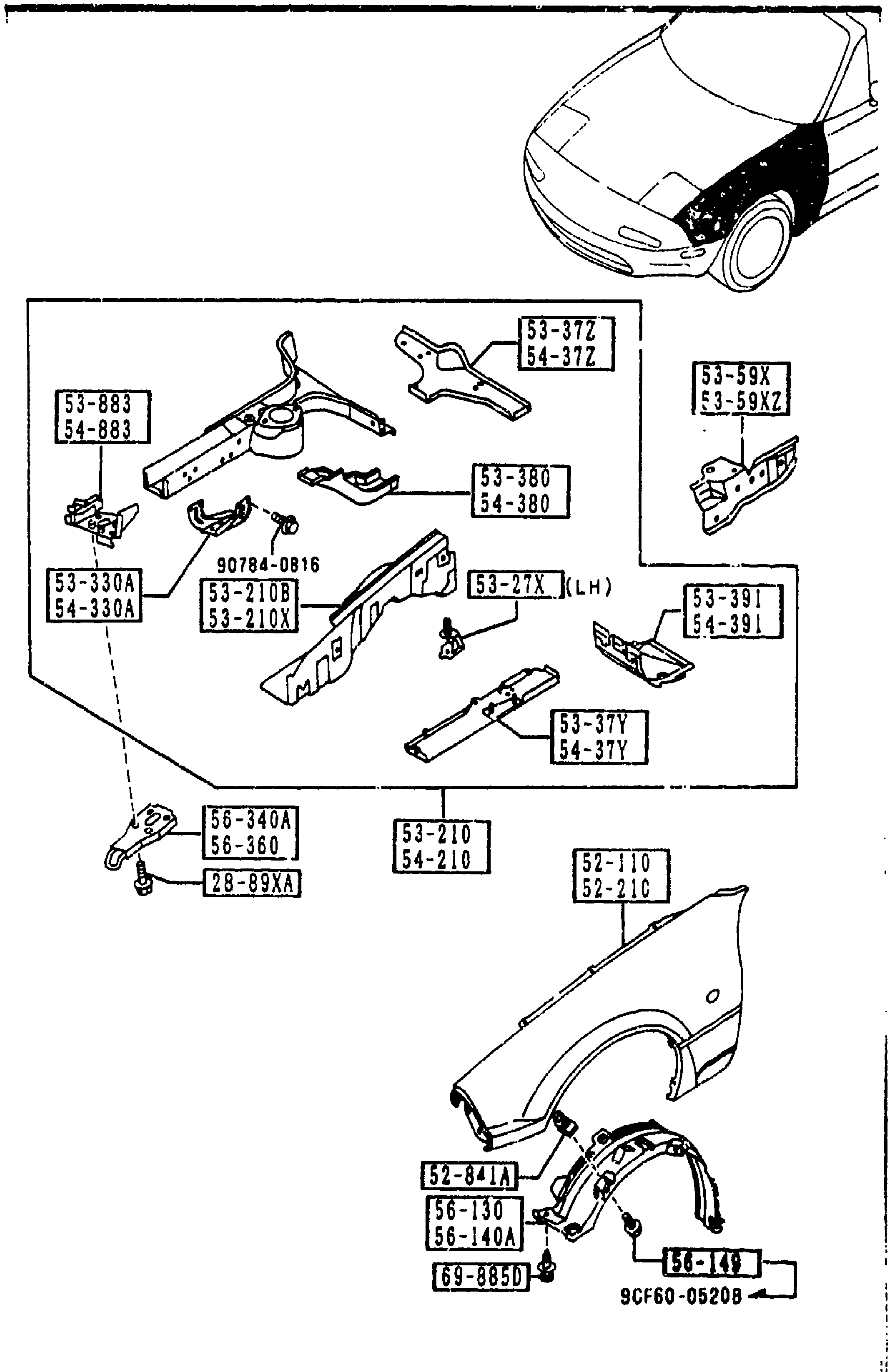
5310 BODY PANELS (FRONT)



5310 -1 * BODY PANELS (FRONT)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-240C		BRACKET(R),RADIATOR			
B61P-15-240	1				
15-250A		BRACKET(L),RADIATOR			
B61P-15-250	1				
53-100		PANEL,RAD.SHROUD			
NA01-53-100B G (NA01-53-100D)	1				-9501
NA01-53-100D AN(NA01-53-100E)	1				9501-9801
NA01-53-100E A (NA01-53-100F)	1				9801-0401
NA01-53-100F	1				0401-
53-160B		MEMBER,CROSS			
NA01-53-16XA AN(NA01-53-16XB)	1				-9701
NA01-53-16XB A (NA01-53-16XC)	1				9701-0701
NA01-53-16XC	1				0701-
53-210A		BRACKET,BUMPER			
NA01-54-180	2				
56-220A		STAY,LOCK-BONNET			
NA01-56-221A AN(NA01-56-221B)	1				-9601
NA01-56-221B	1				9601-

9501 NA35**-102613
9601 NA35**-106797
9701 NA35**-111969
9801 NA35**-126490
0401 NA35**-146561
0701 NA35**-200041


53-37Z
54-37Z
53-883
54-883
53-59X
53-59XZ
53-380
54-380
90784-0816
53-330A
54-330A
53-210B
53-210X
53-27X (LH)
53-391
54-391
53-37Y
54-37Y
56-340A
56-360
28-89XA
53-210
54-210
52-110
52-210
52-841A
56-130
56-140A
69-885D
56-149
9CF60-0520B

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
28-89XA		BOLT,CROSS MEMBER			
GJ21-28-89X	6				
52-110		PANEL(R),FENDER-FRT.			
NAY1-52-110	1				
52-210		PANEL(L),FENDER-FRT.			
NAY1-52-210	1				
52-841A		NUT,CLIP			
LA01-56-135	10				
53-210		PANEL(R),WHEEL APRON			
NAY1-53-200 AN(NAY1-53-200A)	1				-0601
NAY1-53-200A C (NAY1-53-200B)	1				0601-0701
NAY1-53-200B	1				0701-
53-210B		PANEL(R),WHEEL APRON			
NA01-53-210A C (NA01-53-210B)	1				-0701
NA01-53-210B	1				0701-
53-210X		PANEL(L),WHEEL APRON			
NA01-54-210A C (NA01-54-210B)	1				-0701
NA01-54-210B	1				0701-
53-27X		BRKT,AIR CLNR-WHL APRON			
NA01-54-36X	1				
53-330A		BRACKET(R),STABILIZER			
NA01-53-330	1				
53-37Y		FRAME(UP.,R),FRONT-FRT			
NA01-53-37Y	1				
53-37Z		FRAME(UP.R),FRONT-REAR			
NA01-53-37Z	1				-0701
NA01-53-37ZA	1				0701-

```
NAY1-53-200A              8001-56-051     1     0601 NA35**-154752
 C  NAY1-53-200B          90786-0616      1     0701 NA35**-200041
    8001-56-051
NA01-53-210A
    NA01-53-210B
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NA01-54-210A
 C  NA01-54-210B
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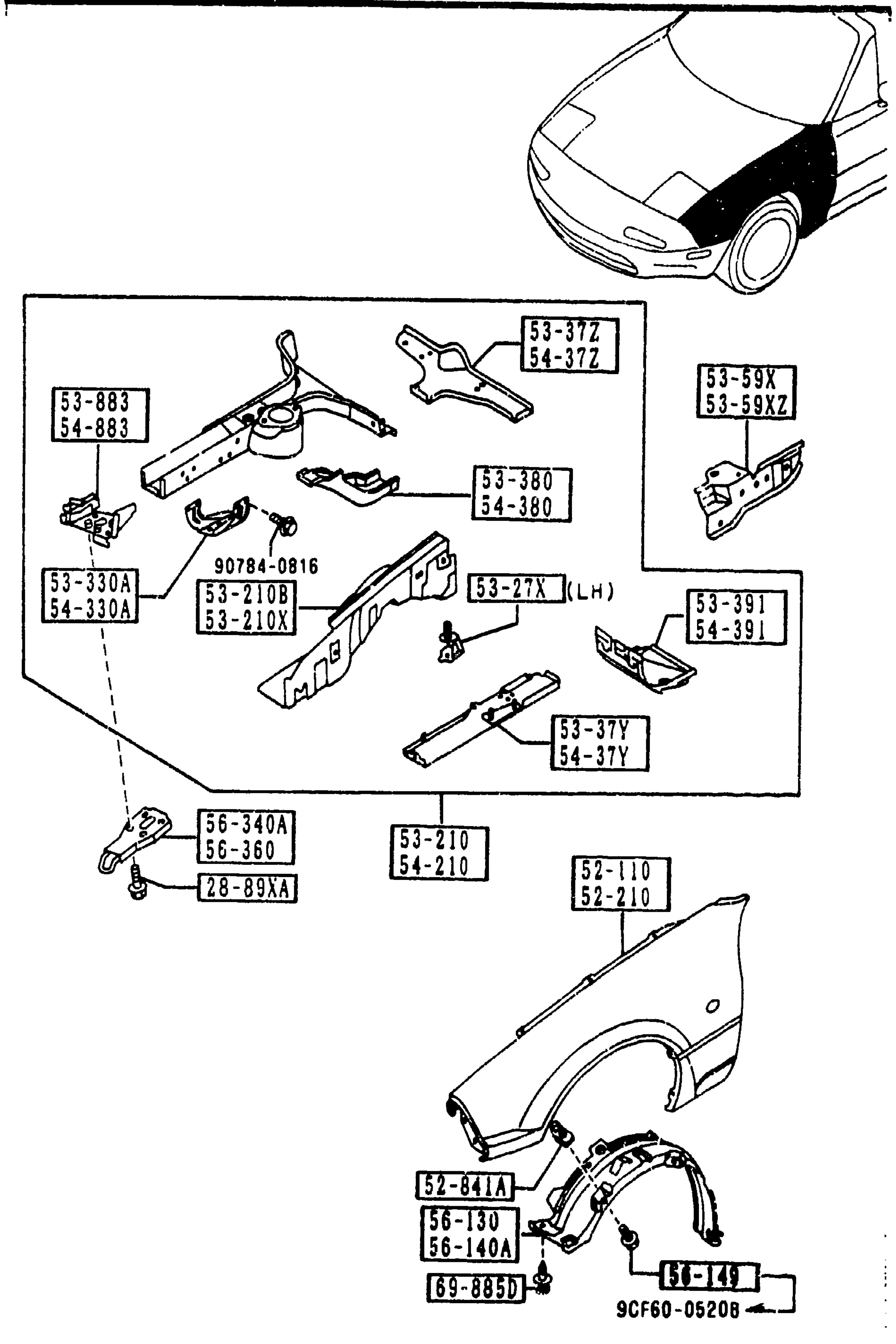
53-37Z
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53-883
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90784-0816
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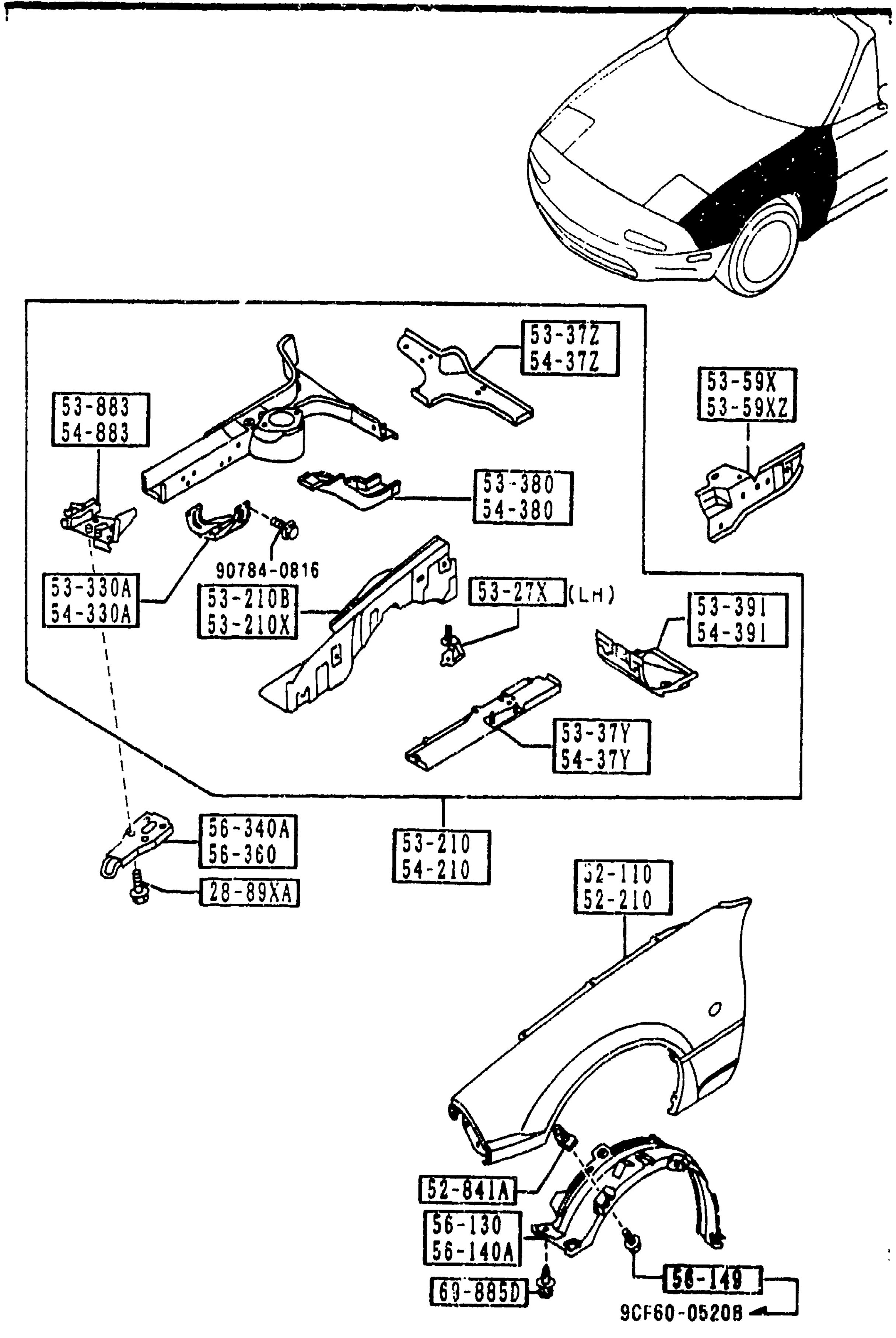
54-330A
53-210B
53-210X
53-27X (LH)
53-391
54-391
53-37Y
54-37Y
56-340A
56-360
28-89XA
53-210
54-210
52-110
52-210
52-841A
56-130
56-140A
69-885D
56-149
9CF60-05208

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
53-380		REINFORCEMENT(R)			
NA01-53-380	1				
53-391		BOX(R),TORQUE			
NA01-53-391	1				
53-59X		REINF.(R),WHEEL APRON			
NA01-53-591	1				
53-59XZ		REINF.(L),WHEEL APRON			
NA01-54-590	1				
53-883		REINF.(R),TIE DOWN HOOK			
NA01-53-32XA AN(NA01-53-32XB)	1				-9701
NA01-53-32XB	1				9701-
54-210		PANEL(L),WHEEL APRON			
NAY1-54-200 AN(NAY1-54-200A)	1				-0601
NAY1-54-200A C (NAY1-54-200B)	1				0601-0701
NAY1-54-200B	1				0701-
54-330A		BRACKET(L),STABILIZER			
NA01-54-330	1				
54-37Y		FRAME(UP.,L),FRONT-FRT			
NA01-54-37Y	1				
54-37Z		FRAME(UP.L),FRONT-REAR			
NA01-54-37ZA	1				
54-380		FRAME(L),FRONT-REAR			
NA01-54-380	1				
54-391		BOX(L),TORQUE			
NA01-54-391	1				
54-383		REINF.(L),TIE DOWN HOOK			
NA01-54-32XA AN(NA01-54-32XB)	1				-9701

NAY1-54-200A
C NAY1-54-200B
B001-56-051
90786-0616

9701 NA35**-111969
0601 NA35**-154752
0701 NA35**-200041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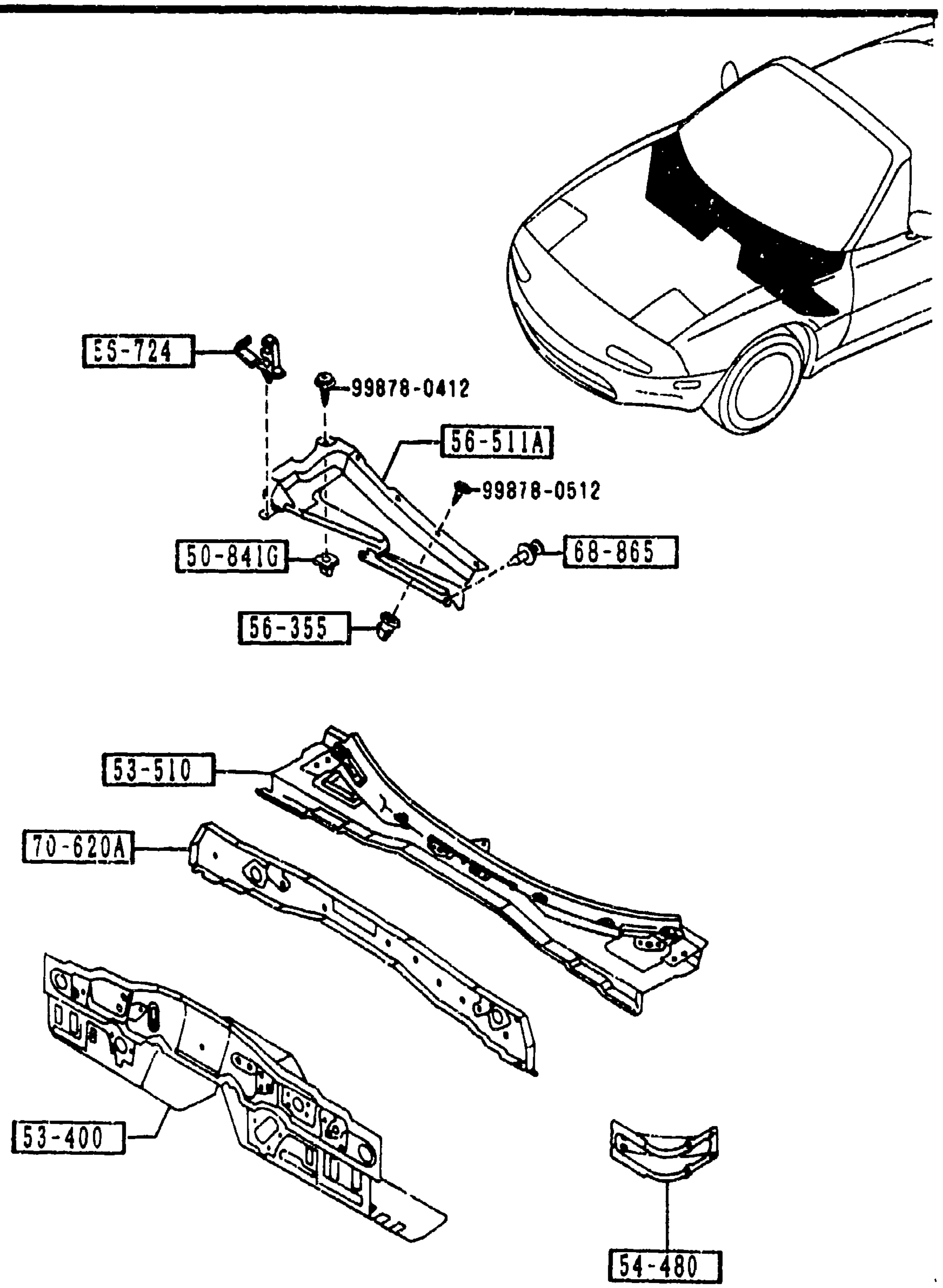
54-37Z
53-883
54-883
53-59X
53-59XZ
53-380
54-380
90784-0816
53-330A
54-330A
53-210B
53-210X
53-27X (LH)
53-391
54-391
53-37Y
54-37Y
56-340A
56-360
53-210
54-210
28-89XA
52-110
52-210
52-841A
56-130
56-140A
56-149
69-885D
9CF60-0520B

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-54-32XB A (NA01-54-32XC)	1				9701-0601
NA01-54-32XC	1				0601-
56-130		GUARD(R),MUD			
NA01-56-131A	1				
56-140A		GUARD(L),MUD			
NA01-56-141A A (NA01-56-141C)	1				-0703
NA01-56-141C	1				0703-
56-149		SCREW,TAPPING-MUD GUARD			
B455-56-149	10				-9C20
56-340A		HOOK(R),TIE DOWN-FRONT			
NA01-56-34XA AN(NA01-56-34XC)	1				-9621
NA01-56-34XC	1				9621-
56-360		HOOK(L),TIE DOWN-FRONT			
NA01-56-34YA AN(NA01-56-34YC)	1				-9621
NA01-56-34YC	1				9621-
69-885D		FASTENER			
NA01-56-145	10				

9621 NA35**-110426
9701 NA35**-111969
9C20 NA35**-132500
0601 NA35**-154752
0703 NA35**-200041
NA35**-200204

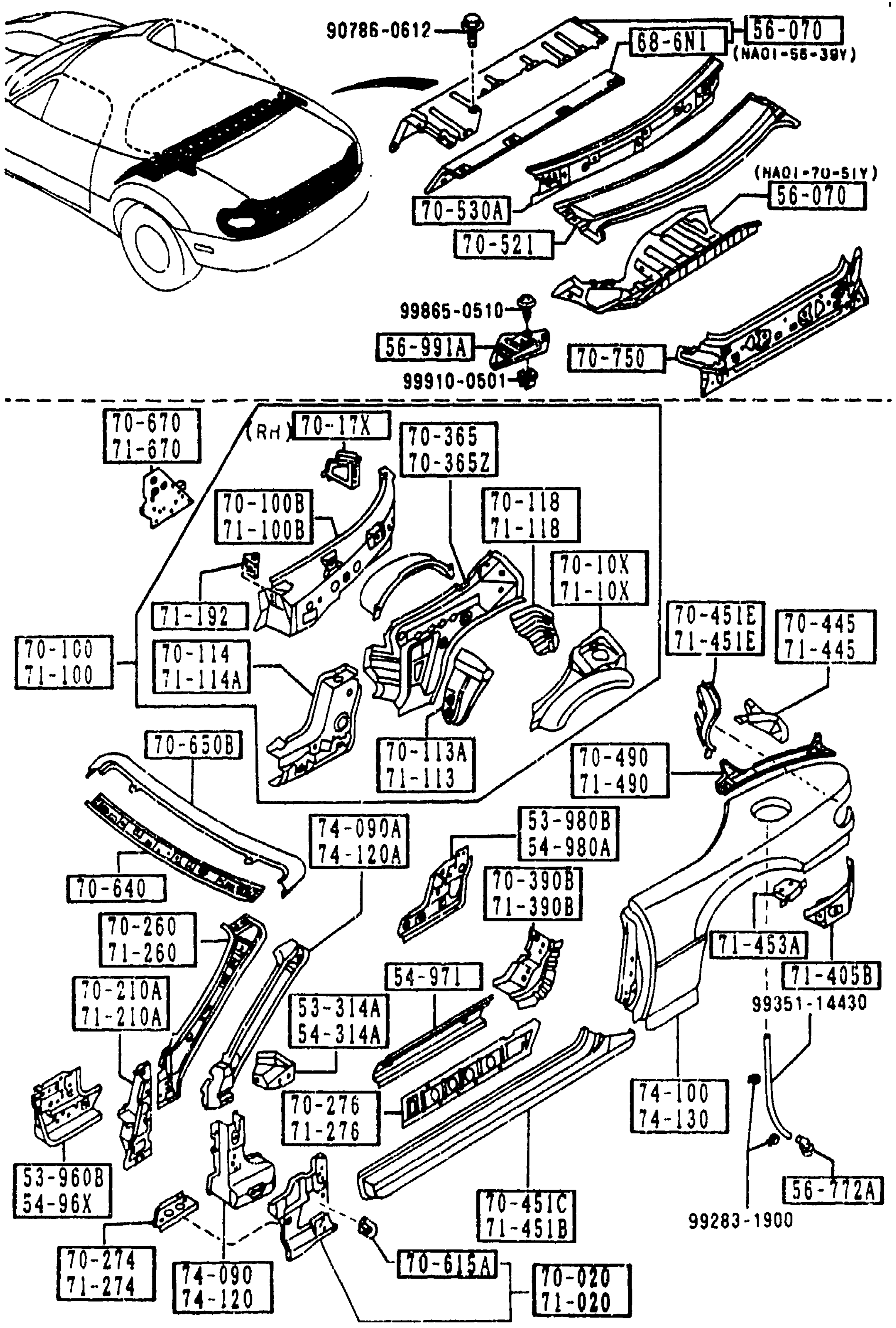
5330 BODY PANELS (DASH & COWL PANEL)



5330 -1 * BODY PANELS (DASH & COWL PANEL)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-841G		GROMMET,SCREW			
F044-51-912	1				
53-400		PANEL,DASH-LOWER			
NA01-54-400B A (NA01-54-400D)	1				-9401
NA01-54-400D AN(NA01-54-400E)	1				9401-9601
NA01-54-400E (NA01-54-400G)	1				9601-9801
NA01-54-400G	1				9801-
53-510		PANEL,DASH-UPPER			
NA01-53-510 AN(NA01-53-510A)	1				-9413
NA01-53-510A A (NA01-53-510D)	1				9413-9701
NA01-53-510D	1				9701-
54-480		JUNCTION,DASH SIDE-S.SILL			
NA01-54-480	2				
56-355		GROMMET,SCREW-BAFFLE			
G211-56-355A	4				
56-511A		COVER,BAFFLE-COWL PANEL			
NA01-56-351	1				
56-724		CLIP'B',WIRE-BONNET			
H260-56-724	1				
68-865		FASTENER			
B040-68-865A	2				
00		NA0 BLACK			
70-620A		PANEL,COWL-FRONT			
NA01-70-62YA	1				-0701
NA01-70-62YB	1				0701-

9401 NA35**-100090
9413 NA35**-100500
9601 NA35**-106797
9701 NA35**-111969
9801 NA35**-116316
0701 NA35**-200041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68-6N1
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70-530A
70-521
(NA01-70-51Y)
56-070
99865-0510
56-991A
99910-0501
70-750
70-670
71-670
(RH)
70-17X
70-365
70-365Z
70-100B
71-100B
70-118
71-118
70-10X
71-10X
71-192
70-100
71-100
70-114
71-114A
70-451E
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70-210A
71-210A
54-971
53-314A
54-314A
71-453A
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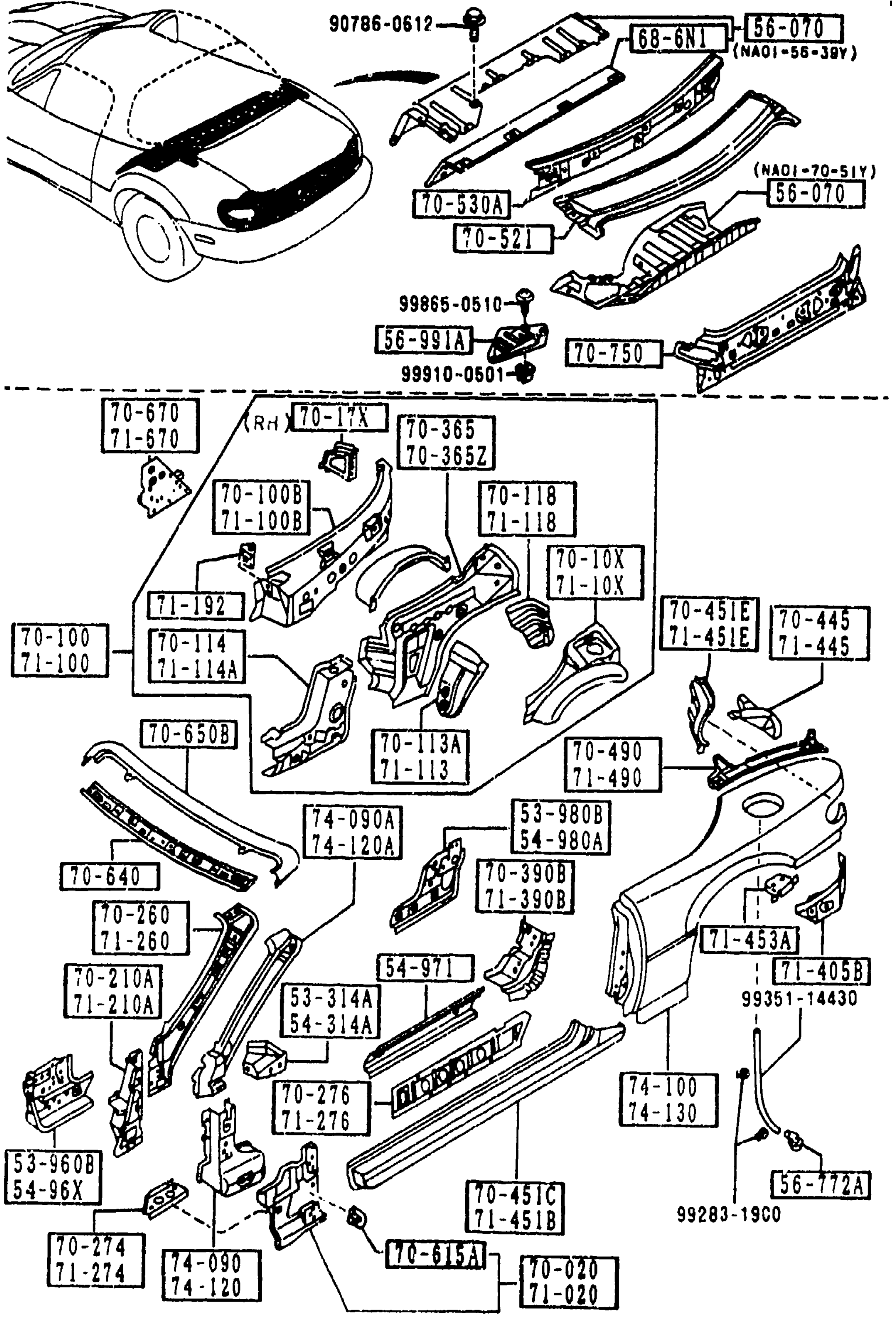
99351-14430
74-100
74-130
70-276
71-276
53-960B
54-96X
56-772A
70-451C
71-451B
99283-1900
70-274
71-274
74-090
74-120
70-615A
70-020
71-020

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
53-314A		BRACKET(R),INST.			
NA01-70-071 G (NA01-70-071A)	1				-9901
NA01-70-071A	1				9901-
53-960B		SILL(FRT.R),SIDE-INNER			
NA01-53-960A A (NA01-53-960B)	1				-0101
NA01-53-960B	1				0101-
53-980B		SILL(RR.R),SIDE-INNER			
NA01-53-980 G (NA01-53-980B)	1				-9801
NA01-53-980B	1				9801-
54-314A		BRACKET(L),INST.			
NA01-71-071 G (NA01-71-071A)	1				-9901
NA01-71-071A	1				9901-
54-96X		SILL(FRT.L),SIDE-INNER			
NA01-54-96XA A (NA01-54-96XB)	1				-0101
NA01-54-96XB	1				0101-
54-971		SILL(C),SIDE-INNER			
NA01-54-971	2				
54-980A		SILL(RR.L),SIDE-INNER			
NA01-54-980 G (NA01-54-980B)	1				-9801
NA01-54-980B	1				9801-
56-070		PANEL,BULK HEAD			
NA01-56-39Y	1				
NA01-70-51Y	1				
56-772A		PIPE,DRAIN-RR FENDER			
NA01-56-772	1				
56-991A		COVER,SERVICE HOLE			
NA01-56-971	1				

9801 NA35**-116316
9901 NA35**-119257
0101 NA35**-133591

5340 BODY PANELS (SIDE)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56-070
70-530A
70-521
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56-991A
99910-0501
70-750
70-670
71-670
(RH)
70-17X
70-365
70-365Z
70-100B
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70-118
71-118
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71-10X
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70-650B
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71-490
74-090A
74-120A
53-980B
54-980A
70-640
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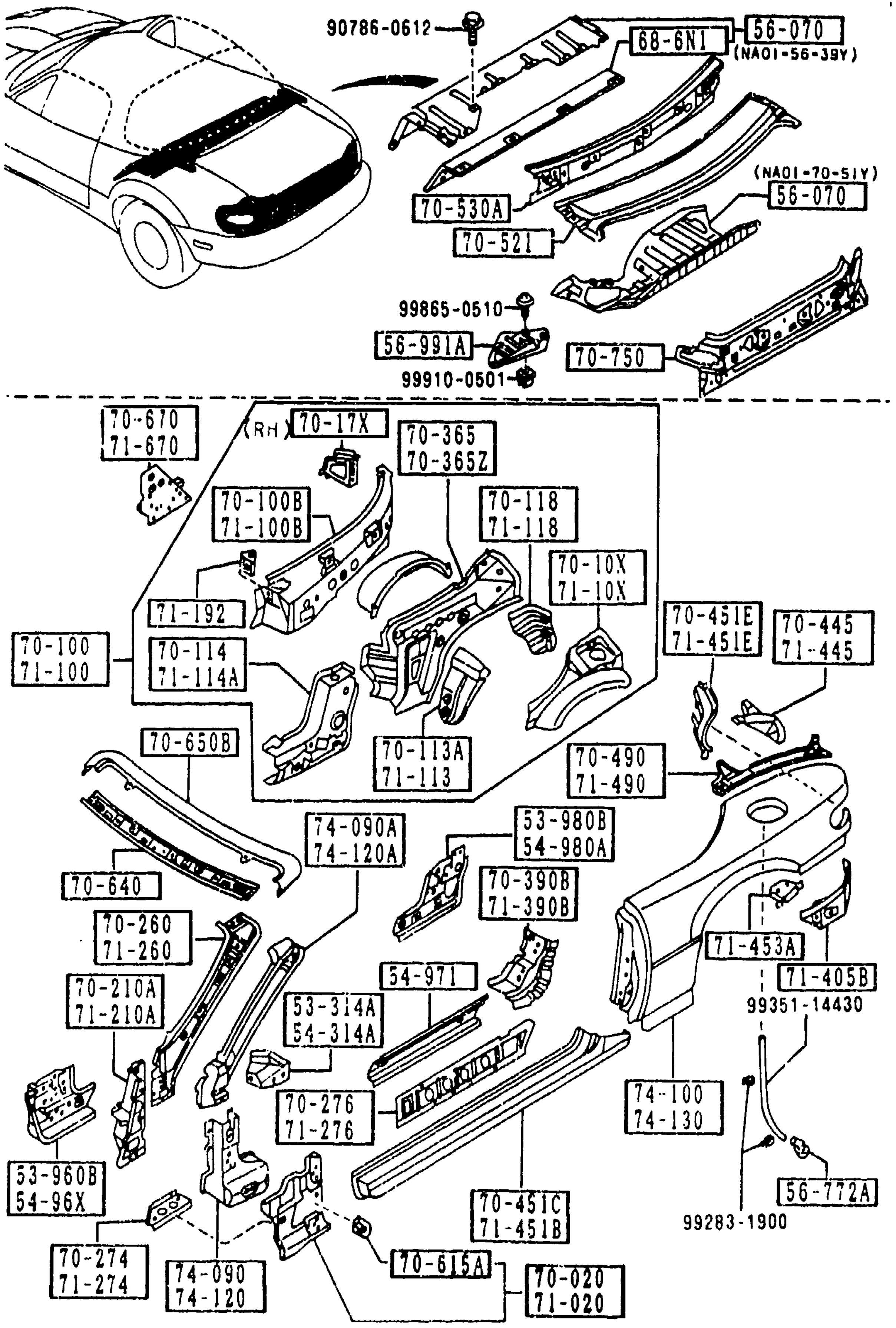
53-314A
54-314A
70-276
71-276
74-100
74-130
53-960B
54-96X
56-772A
70-451C
71-451B
99283-1900
70-274
71-274
74-090
74-120
70-615A
70-020
71-020

5340 -2 BODY PANELS (SIDE)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-6N1		INSULATOR,BALK HEAD PANEL			
NA01-68-6N1	1				
70-020		PANEL(R),COWL SIDE			
NA01-70-020B	1				
70-10X		PANEL(R),QUARTER			
NA01-70-111 AN(NA01-70-111A)	1				-9701
NA01-70-111A	1				9701-
70-100		PANEL(R),QUARTER			
NA01-70-100D AN(NA01-70-100E)	1				-9701
NA01-70-100E G (NA01-70-100F)	1				9701-9901
NA01-70-100F AN(NA01-70-100G)	1				9901-9C01
NA01-70-100G	1				9C01-
70-100B		PANEL(R),INSIDE			
NA01-70-19XB	1				
70-113A		PLATE(R),SEAL			
NA01-70-11Z	1				
70-114		PLATE(R),END			
NA01-70-12XA	1				
70-118		PROTECTOR(R),SPLASH			
NA01-70-15X	1				
70-17X		BRKT,BATT.CLAMP-QTR PANEL			
NA01-70-17X AN(NA01-70-17XA)	1				-9C01
NA01-70-17XA	1				9C01-
70-210A		PILLAR(R),HINGE			
NA01-70-230	1				
70-260		PILLAR(R),FRT.-INNER			
NA01-70-240A	1				-9901

9701 NA35**-111969
9901 NA35**-119257
9C01 NA35**-130310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56-070
70-530A
70-521
99865-0510
56-991A
99910-0501
70-750
70-670
71-670
(RH)
70-17X
70-365
70-365Z
70-100B
71-100B
70-118
71-118
70-10X
71-10X
71-192
70-100
71-100
70-114
71-114A
70-451E
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70-113A
71-113
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71-490
74-090A
74-120A
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54-980A
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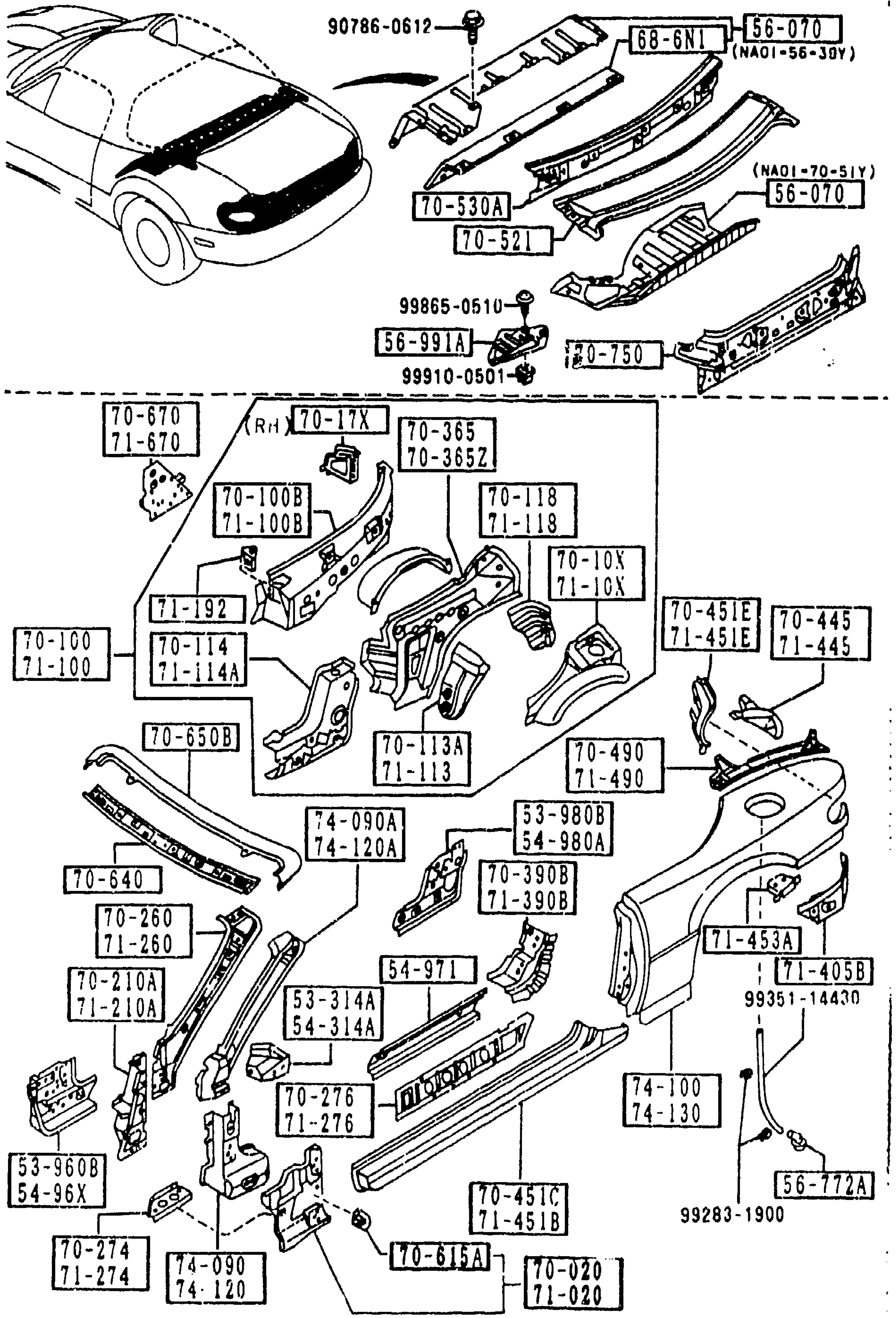
71-405B
54-971
70-210A
71-210A
53-314A
54-314A
99351-14430
70-276
71-276
74-100
74-130
53-960B
54-96X
70-451C
71-451B
56-772A
99283-1900
70-274
71-274
74-090
74-120
70-615A
70-020
71-020

5340 -3 BODY PANELS (SIDE)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D G (NA01-70-240B)					
NA01-70-240B	1				9901-
70-274		GUSSET(R),SIDE SILL OUTER			
NA01-70-274	1				
70-276		REINF.(R),SIDE SILL			
NA01-70-275	1				
70-365		REINF.(R),BELT LINE-C.PIL			
NA01-70-116A	1				
70-365Z		REINF.(L),BELT LINE-C.PIL			
NA01-71-116B	1				
70-390B		REINF.(R),STRIKER			
NA01-70-460	1				
70-445		GUSSET(R),REAR FENDER-RR			
NA01-70-445	1				
70-451C		SILL(R),SIDE OUT.			
NA01-70-270A AN(NA01-70-270B)	1				-9801
NA01-70-270B	1				9801-
70-451E		HOUSING(R),LAMP-RR FENDER			
NA01-70-J30	1				
70-490		RAIL(R),RAIN-REAR			
NA01-70-440A	1				
70-521		PANEL,REAR DECK			
NA01-70-521 A (NA01-70-521A)	1				-9330
NA01-70-521A	1				9330-
70-530A		MEMBER,REAR DECK			
NA01-70-530A	1				
70-615A		BRACKET,FENDER			

9330 NA35**-100072
9801 NA35**-116316
9901 NA35**-119257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68-6N1
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(NA01-70-51Y)
56-070
70-530A
70-521
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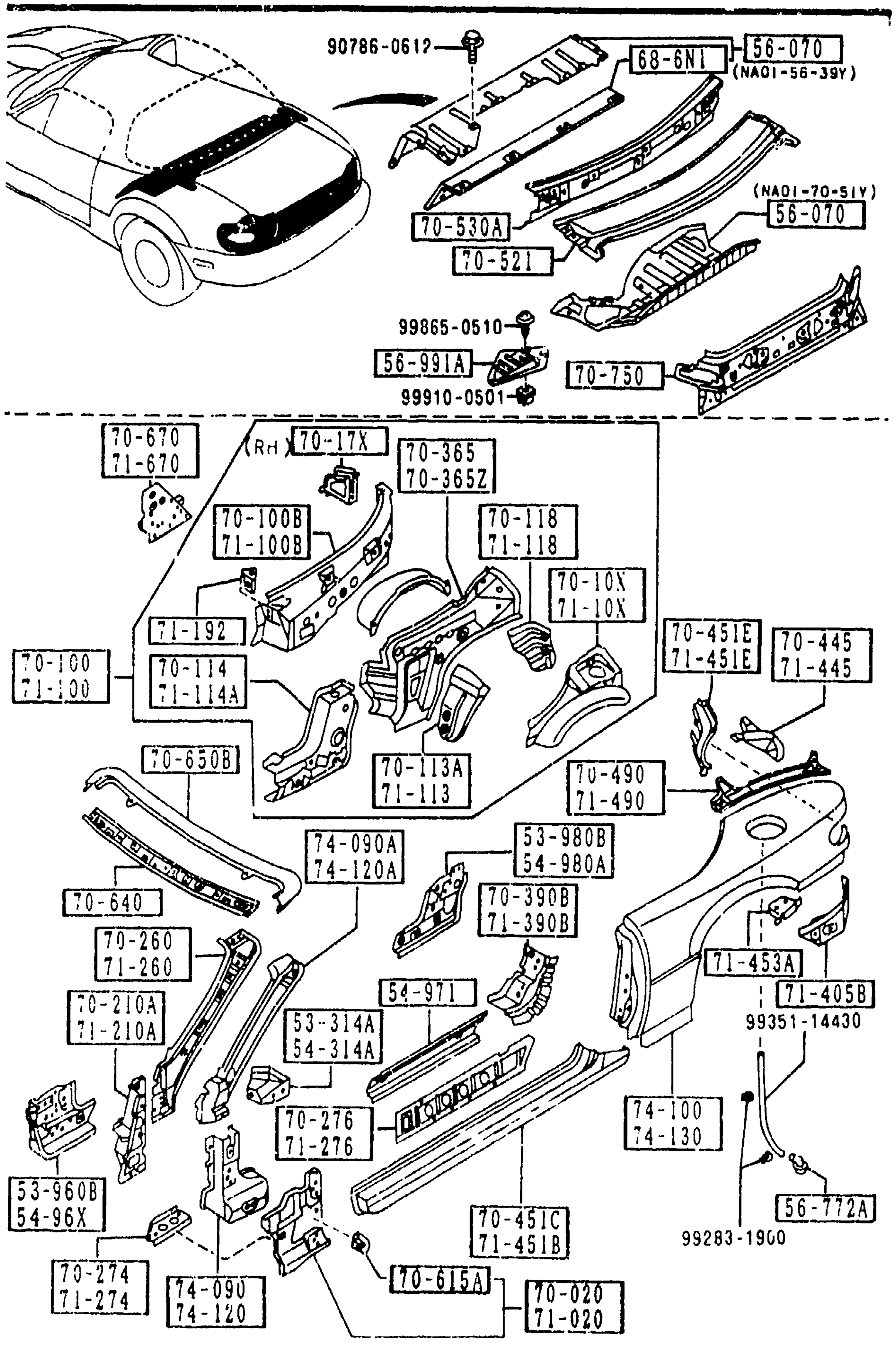
56-991A
99910-0501
70-750
70-670
71-670
(RH)
70-17X
70-365
70-365Z
70-100B
71-100B
70-118
71-118
70-10X
71-10X
71-192
70-100
71-100
70-114
71-114A
70-451E
71-451E
70-445
71-445
70-650B
70-113A
71-113
70-490
71-490
74-090A
74-120A
53-980B
54-980A
70-640
70-390B
71-390B
70-260
71-260
71-453A
71-405B
70-210A
71-210A
54-971
99351-14430
53-314A
54-314A
70-276
71-276
74-100
74-130
53-960B
54-96X
56-772A
70-451C
71-451B
99283-1900
70-274
71-274
74-090
74-120
70-615A
70-020
71-020

5340 -4 BODY PANELS (SIDE)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B092-70-070A	2				
70-640		HEADER,FRONT			
NA01-70-640	1				
70-650B		HEADER,FRONT-UPPER			
NA01-70-650	1				
70-670		PLATE(R),CLOSING-QTR PANEL			
NA01-70-670	1				
70-750		PANEL,REAR END			
NA01-70-750C A (NA01-70-750D)	1				-9501
NA01-70-750D G (NA01-70-750E)	1				9501-9905
NA01-70-750E AN(NA01-70-750F)	1				9905-0601
NA01-70-750F	1				0601-
71-020		PANEL(L),COWL SIDE			
NA01-71-020B	1				
71-10X		PANEL(L),QUARTER			
NA01-71-11X AN(NA01-71-11XA)	1				-0321
NA01-71-11XA	1				0321-
71-100		PANEL(L),QUARTER			
NA01-71-100E AN(NA01-71-100F)	1				-9701
NA01-71-100F G (NA01-71-100G)	1				9701-9901
NA01-71-100G	1				9901-
71-100B		PANEL(L),INSIDE			
NA01-71-19XB	1				
71-113		PLATE(L),SEAL			
NA01-71-11Z	1				
71-114A		JUNCTION(L),CORNER-Q/PANE			

9501 NA35**-102613
9701 NA35**-111969
9901 NA35**-119257
9905 NA35**-119643
0321 NA35**-145170
0601 NA35**-154752

5340 BODY PANELS (SIDE)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68-6N1
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56-991A
70-750
99910-0501
70-670
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(RH) 70-17X
70-365
70-365Z
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71-100B
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71-118
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71-10X
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74-120A
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54-980A
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71-390B
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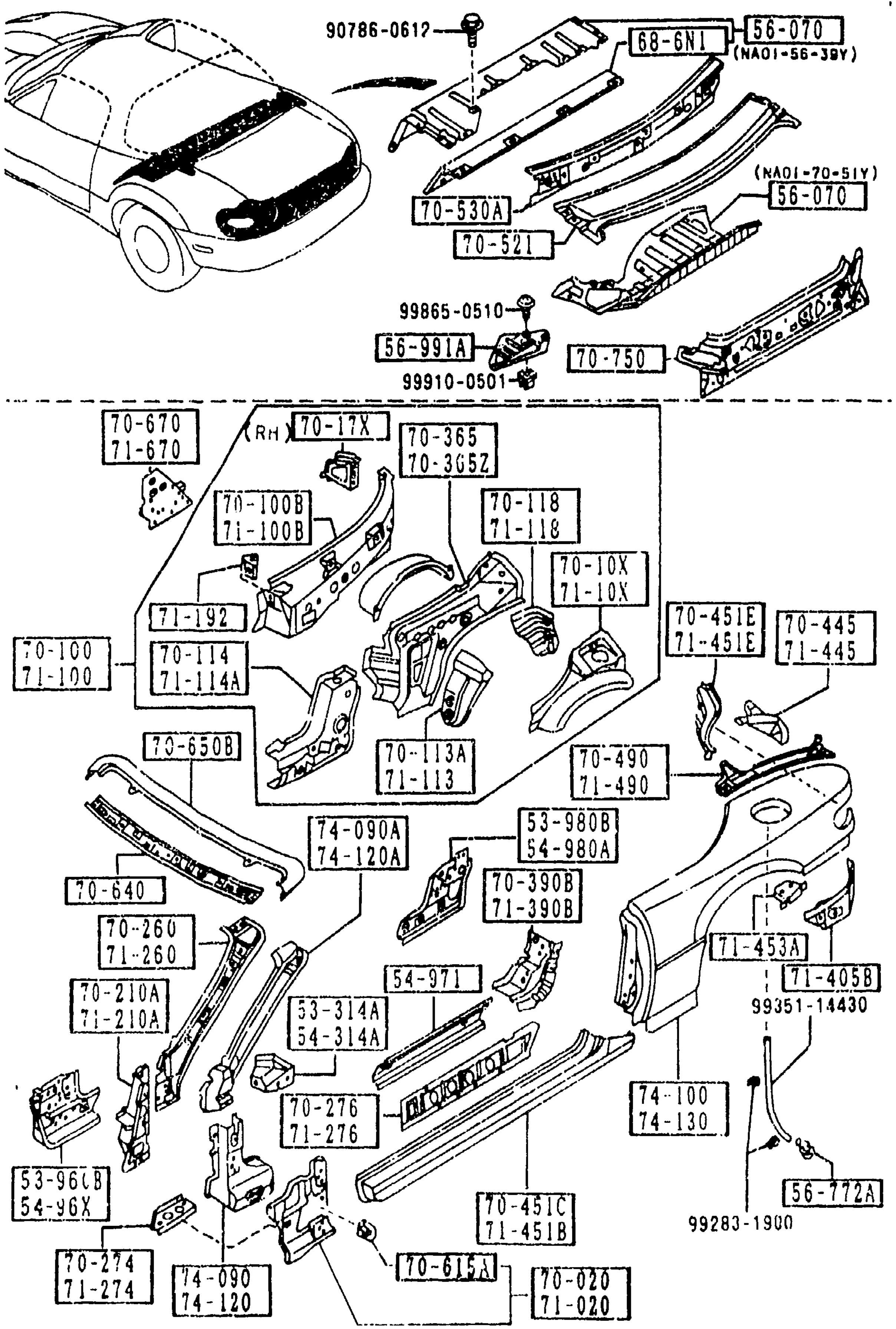
71-260
54-971
71-453A
71-405B
99351-14430
70-210A
71-210A
53-314A
54-314A
74-100
74-130
70-276
71-276
53-960B
54-96X
56-772A
70-451C
71-451B
99283-1900
70-274
71-274
74-090
74-120
70-615A
70-020
71-020

5340 -5 BODY PANELS (SIDE)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-71-12XA	1				
71-118		PROTECTOR(L),SPLASH			
NA01-71-15X AN(NA01-71-15XA)	1				-0321
NA01-71-15XA	1				0321-
71-192		BRKT,CAP-QUARTER PANEL			
NA01-71-192	2				
71-210A		PILLAR(L),HINGE			
NA01-71-230	1				
71-260		PILLAR(L),FRT.-INNER			
NA01-71-240A G (NA01-71-240B)	1				-9901
NA01-71-240B	1				9901-
71-274		GUSSET(L),SIDE SILL OUTER			
NA01-71-274	1				
71-276		REINF.(L),SIDE SILL			
NA01-71-275	1				
71-390B		REINF.(L),STRIKER			
NA01-71-460	1				
71-405B		PANEL(L),RR FENDER-LOWER			
NA01-71-421	1				
71-445		GUSSET(L),REAR FENDER-RR			
NA01-71-445	1				
71-451B		SILL(L),SIDE OUT.			
NA01-71-270A AN(NA01-71-270B)	1				-9801
NA01-71-270B	1				9801-
71-451E		HOUSING(L),LAMP-RR FENDER			
NA01-71-J30	1				

9801 NA35**-116316
9901 NA35**-119257
0321 NA35**-145170

5340 BODY PANELS (SIDE)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70-521
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99910-0501
70-750
70-670
71-670
(RH)
70-17X
70-365
70-365Z
70-100B
71-100B
70-118
71-118
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71-10X
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74-100
74-130
53-96(B
54-96X
70-451C
71-451B
56-772A
99283-1900
70-274
71-274
74-090
74-120
70-615A
70-020
71-020

5340 -6 * BODY PANELS (SIDE)

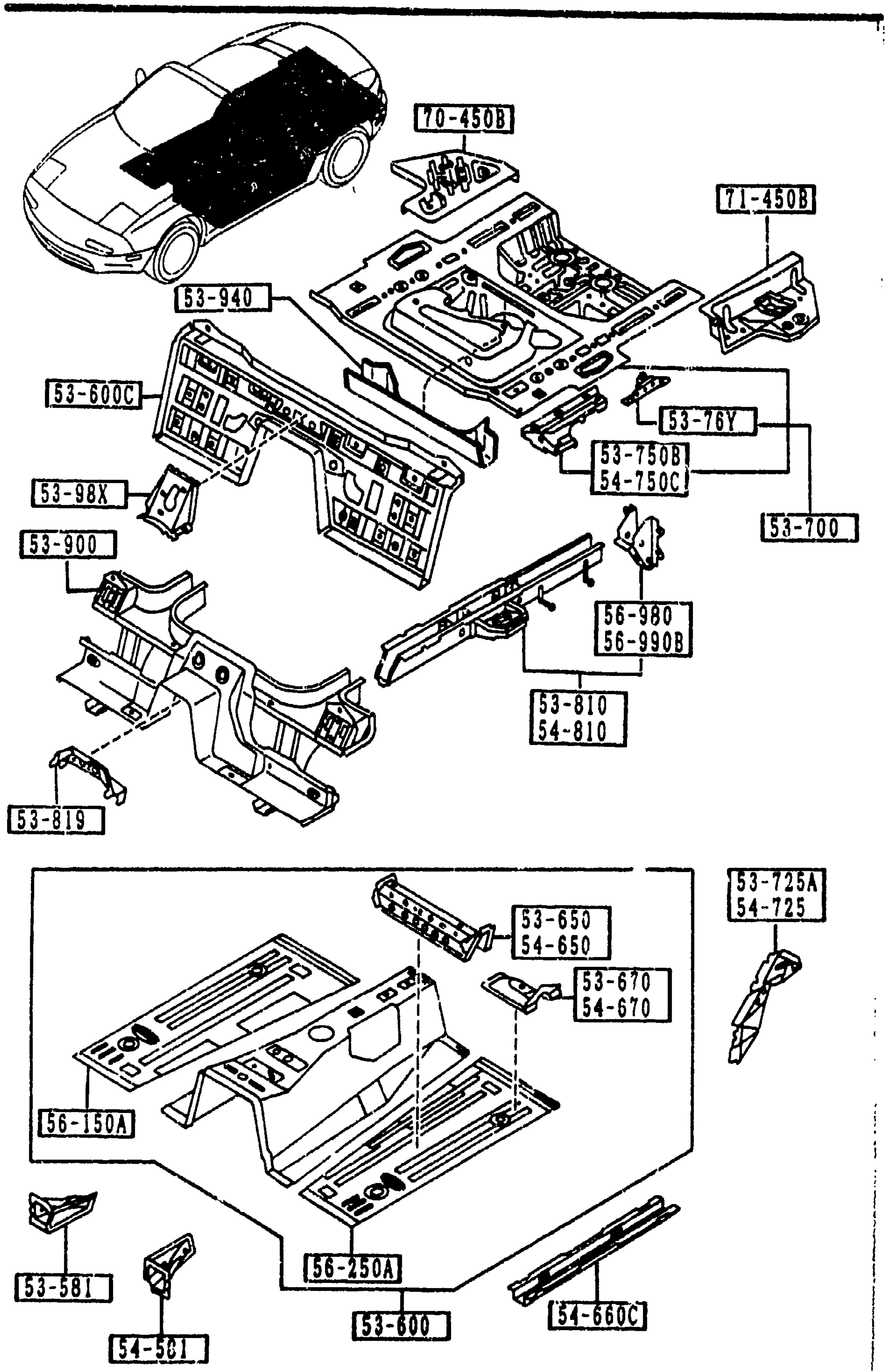
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
71-453A NA01-71-453	1	BRKT(L),TRK.BOARD-FENDER			
71-490 NA01-71-440A	1	RAIL(L),RAIN-REAR			
71-670 NA01-71-670	1	PLATE(L),CLOSING-QTR PANEL			
74-090 NA01-70-280B	1	PILLAR(R),HINGE-OUT.			
74-090A NA01-70-210	1	PILLAR(R),FRONT-OUT.			
74-100 NAY1-70-400 A (NAY1-70-400A)	1	PANEL(R),FENDER-REAR			-9330
NAY1-70-400A	1				9330-
74-120 NA01-71-280B	1	PILLAR(L),HINGE-OUT.			
74-120A NA01-71-210	1	PILLAR(L),FRONT-OUT.			
74-130 NAY1-71-400 A (NAY1-71-400A)	1	PANEL(L),FENDER-REAR			-9330
NAY1-71-400A	1				9330-

9330 NA35**-100072

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET,PIPING			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)			
2-M05	5103	HEAD LAMP RETRACTORS	2-N12	6150	COOLING UNIT (AIR CONDITIONER)			
2-D06	5105	FRONT COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
2-F06	5110	REAR COMBINATION LAMPS	2-D13	6330	SUNROOF			
2-I06	5120	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-J06	5180	REAR FINISHER	2-D14	6610	DASHBOARD SWITCHES			
2-L06	5230	BONNET	2-E14	6611	COMBINATION SWITCH			
2-N06	5260	TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)			
2-D07	5310	BODY PANELS (FRONT)	2-G14	6635	DOOR SWITCH & HORNS			
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL)	2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)			
2-I07	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)			
2-C08	5370	BODY PANELS (FLOOR)	2-L14	6700	WIRING HARNESSES(FRONT & REAR)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)	2-[illegible]	6701	WIRING HARNESSES(ENGINE & T/MISSION)			
2-G08	5390	FLOOR ATTACHMENTS	2-D15	6702	WIRING HARNESSES(DASHBOARD)			
2-[illegible]	5500	DASHBOARD EQUIPMENTS	2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)			
2-[illegible]09	5520	METER HOOD	2-F15	6704	WIRING HARNESS CLAMPS			
2-F09	5530	SPEEDOMETER CABLE	2-I15	6720	WINDSHIELD WASHER			
2-G09	5540	METER COMPONENTS	2-K15	6730	WINDSHIELD WIPERS			
2-I09	5560	DASHBOARD & RELATED PARTS	2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)			
2-L09	5570	CONSOLE	2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS			
2-C10	5580	VENTILATOR	2-C16	6840	TRIMS & SCUFF PLATES			
2-D10	5700	SEATS	2-E16	6860	FLOOR MATS & PADS			
2-K10	5790	SEAT BELTS	2-G16	6870	SERVICE TOOLS			
2-L10	5800	FRONT DOORS	2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS			
2-C11	5830	FRONT DOOR MECHANISMS	2-J16	6930	CAUTION PLATES & LABELS			
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS	2-L16	7250	QUARTER WINDOW & TRIMS			
2-C12	6100	HEATER						
2-D12	6110	HEATER UNIT COMPONENTS						

5370 BODY PANELS (FLOOR)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53-900
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54-810
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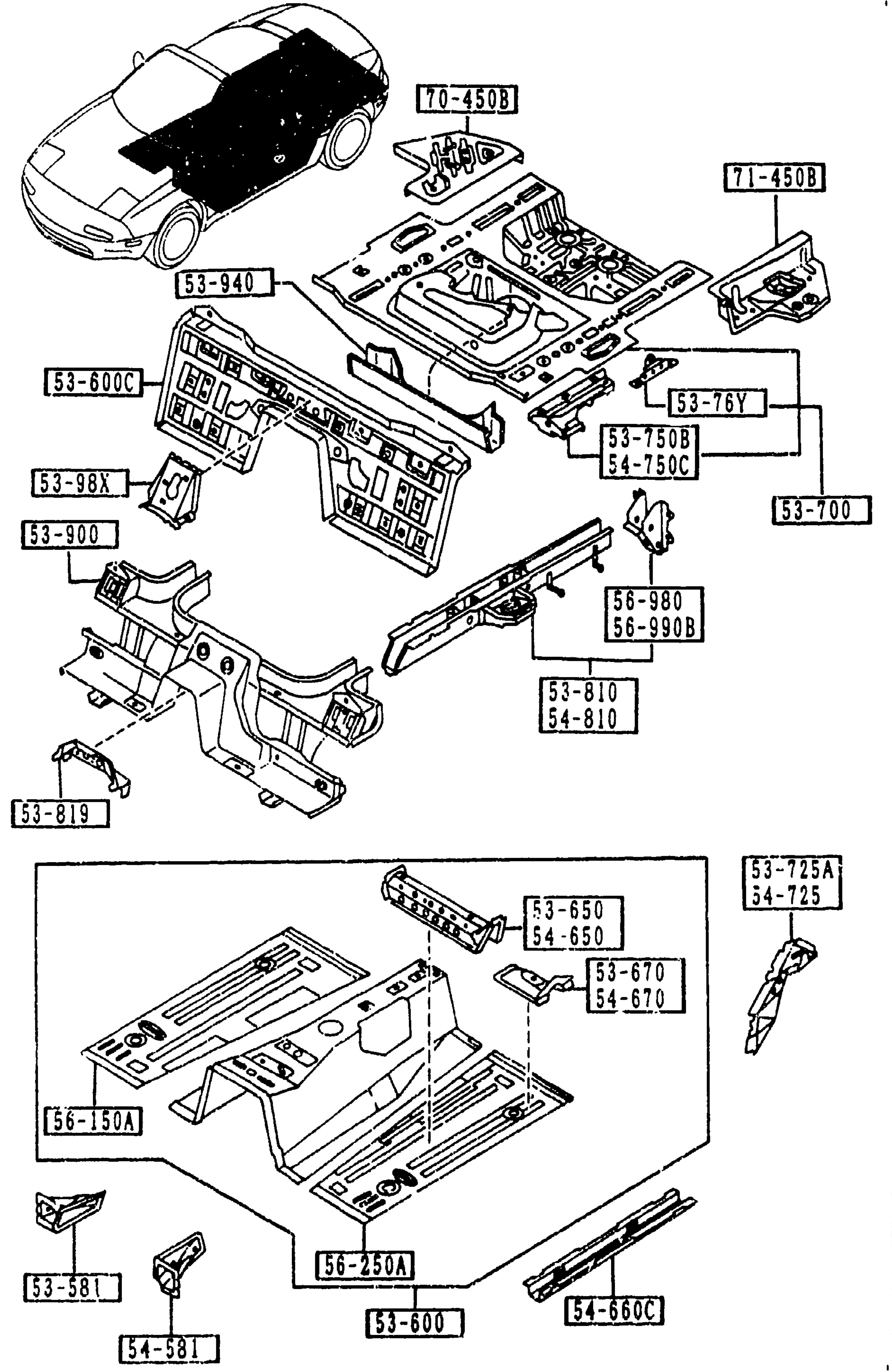
53-725A
54-725
53-650
54-650
53-670
54-670
56-150A
53-581
54-581
56-250A
53-600
54-660C

5370 -1 BODY PANELS (FLOOR)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
53-581		JUNCTION(R),FRT. FLOOR			
NA01-53-482	1				
53-600		PAN,FLOOR-FRONT			
NA01-53-600 A (NA01-53-600A)	1				-0501
NA01-53-600A	1				0501-
53-600C		PAN,FLOOR-CENTER			
NA01-53-720	1				
53-650		MEMBER NO.2(R),CROSS-FLOOR			
NA01-53-650	1				
53-670		BRKT(R),SEAT-F.FLOOR PAN			
NA01-53-670	1				
53-700		PAN,FLOOR-REAR			
NA01-53-710A C (NA01-53-710B)	1				-0701
NA01-53-710B	1				0701-
53-725A		GUSSET NO.3(R),C.FLOOR PAN			
NA01-53-725A	1				
53-750B		PLATE(R),SIDE-REAR FLOOR			
NA01-53-750	1				
53-76Y		PLATE,NUT-TRUNK FLOOR PAN			
NA01-53-760	2				
53-810		FRAME(R),REAR SIDE			
NA01-53-810C G (NA01-53-810D)	1				-9901
NA01-53-810D	1				9901-
53-819		BRACKET,PARKING CABLE-FLOOR			
NA01-53-819	1				
53-900		MEMBER NO.3,CROSS			
NA01-53-900	1				

NA01-53-710A 9901 NA35**-119257
C NA01-53-710B 0501 NA35**-150679
B001-56-051 2 0701 NA35**-200041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53-600C
53-98X
53-900
53-819
53-76Y
53-750B
54-750C
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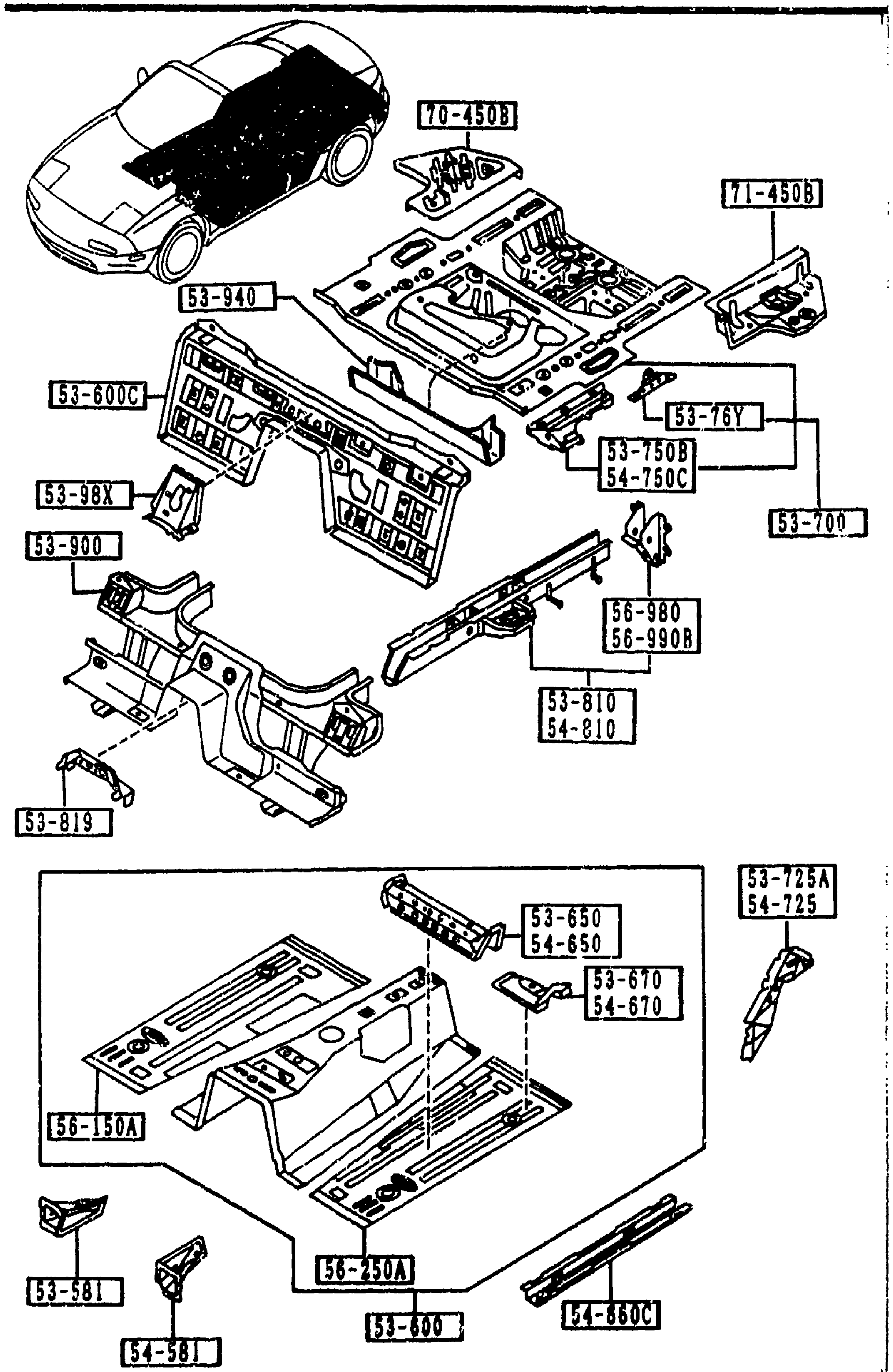
56-980
56-990B
53-810
54-810
53-725A
54-725
53-650
54-650
53-670
54-670
56-150A
53-581
54-581
56-250A
53-600
54-660C

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
53-940		MEMBER NO.4,CROSS			
NA01-53-931	1				
53-98X		GUSSET,FRONT FLOOR PAN			
NA01-53-880	1				
54-581		JUNCTION(L),FRT. FLOOR			
NA01-54-482	1				
54-650		MEMBER NO.2(L),CROSS-FLOOR			
NA01-54-650	1				
54-660C		FRAME,FRONT-FRT FLOOR PAN			
NA01-54-660	2				
54-670		BRKT(L),SEAT-F.FLOOR PAN			
NA01-54-670	1				
54-725		GUSSET NO.3(L),C.FLOOR PAN			
NA01-54-725A	1				
54-750C		PLATE(L),SIDE-REAR FLOOR			
NA01-54-750	1				
54-810		FRAME(L),REAR SIDE			
NA01-54-810C G (NA01-54-810D)	1				-9901
NA01-54-810D	1				9901-
56-150A		PAN(R),FLOOR			
NA01-53-602	1				
56-250A		PAN(L),FLOOR			
NA01-54-610	1				
56-980		BRKT(R),BUMPER-RR SKIRT			
NA01-53-830A A (NA01-53-830C)	1				-9330
NA01-53-830C	1				9330-
56-990B		BRKT(L),BUMPER-RR SKIRT			

9330 NA35**-100072
9901 NA35**-119257

5370 BODY PANELS (FLOOR)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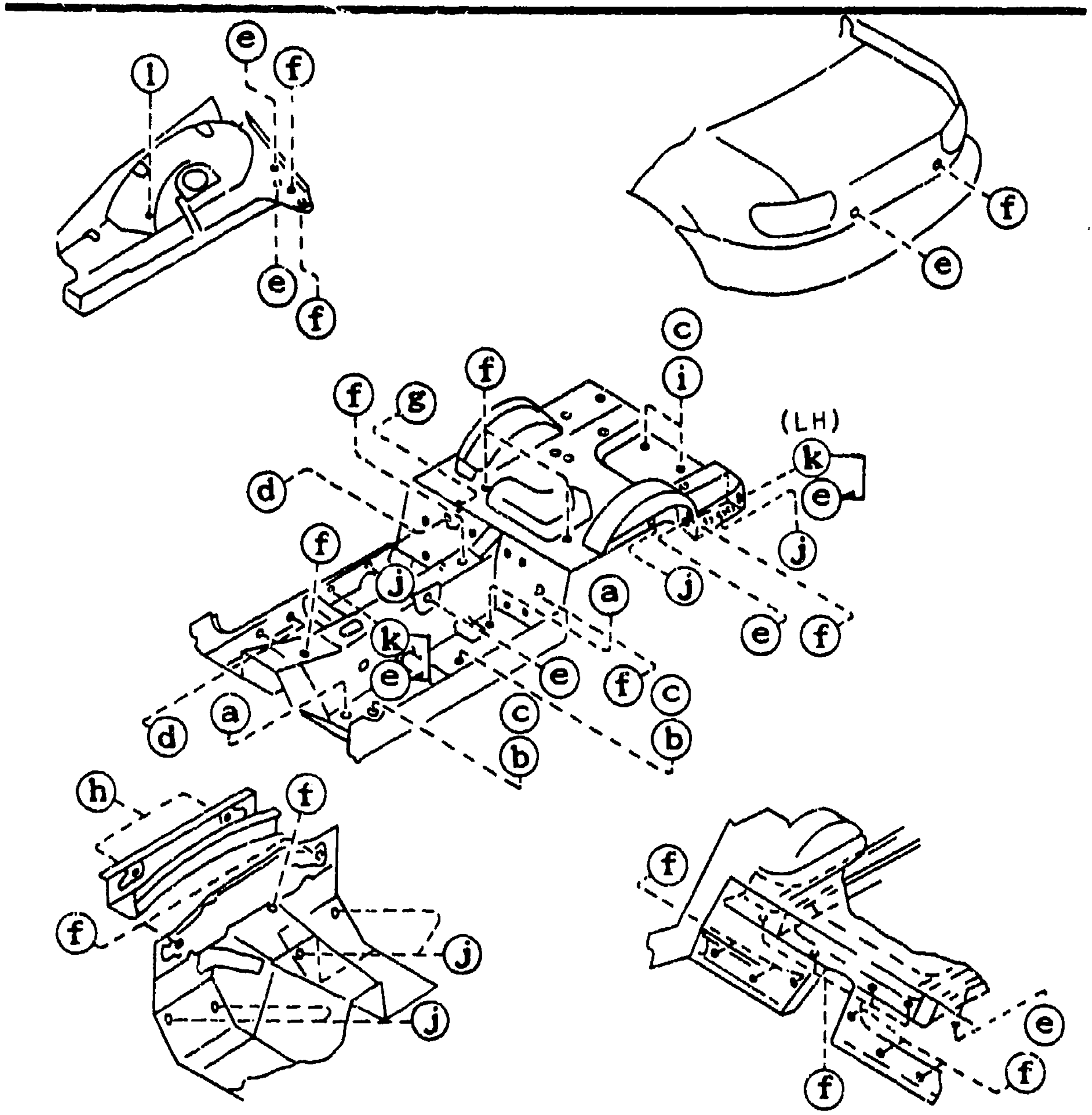
54-725
53-650
54-650
53-670
54-670
56-150A
56-250A
53-581
54-581
53-600
54-860C

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-54-830A A (NA01-54-830C)	1				-9330
NA01-54-830C	1				9330-
70-450B		PANEL(R),FLOOR SIDE			
NA01-53-740B	1				
71-450B		PANEL(L),FLOOR SIDE			
NA01-54-740 AN(NA01-54-740A)	1				-9801
NA01-54-740A	1				9801-

9330 NA35MM-100072
9801 NA35MM-116316

5380 FLOOR ATTACHMENTS (HOLE COVERS)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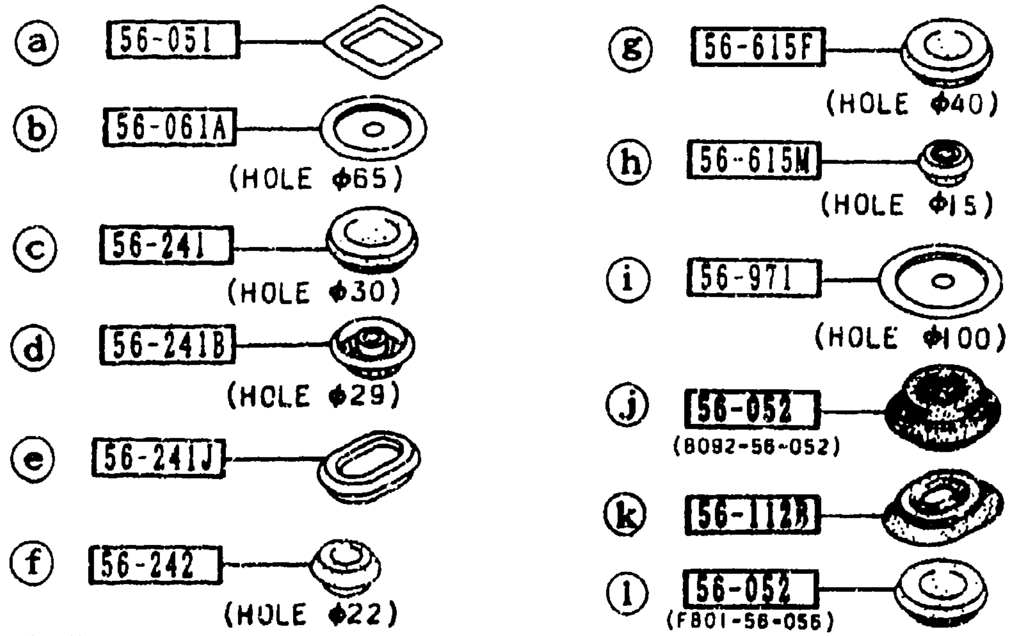
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56-061A
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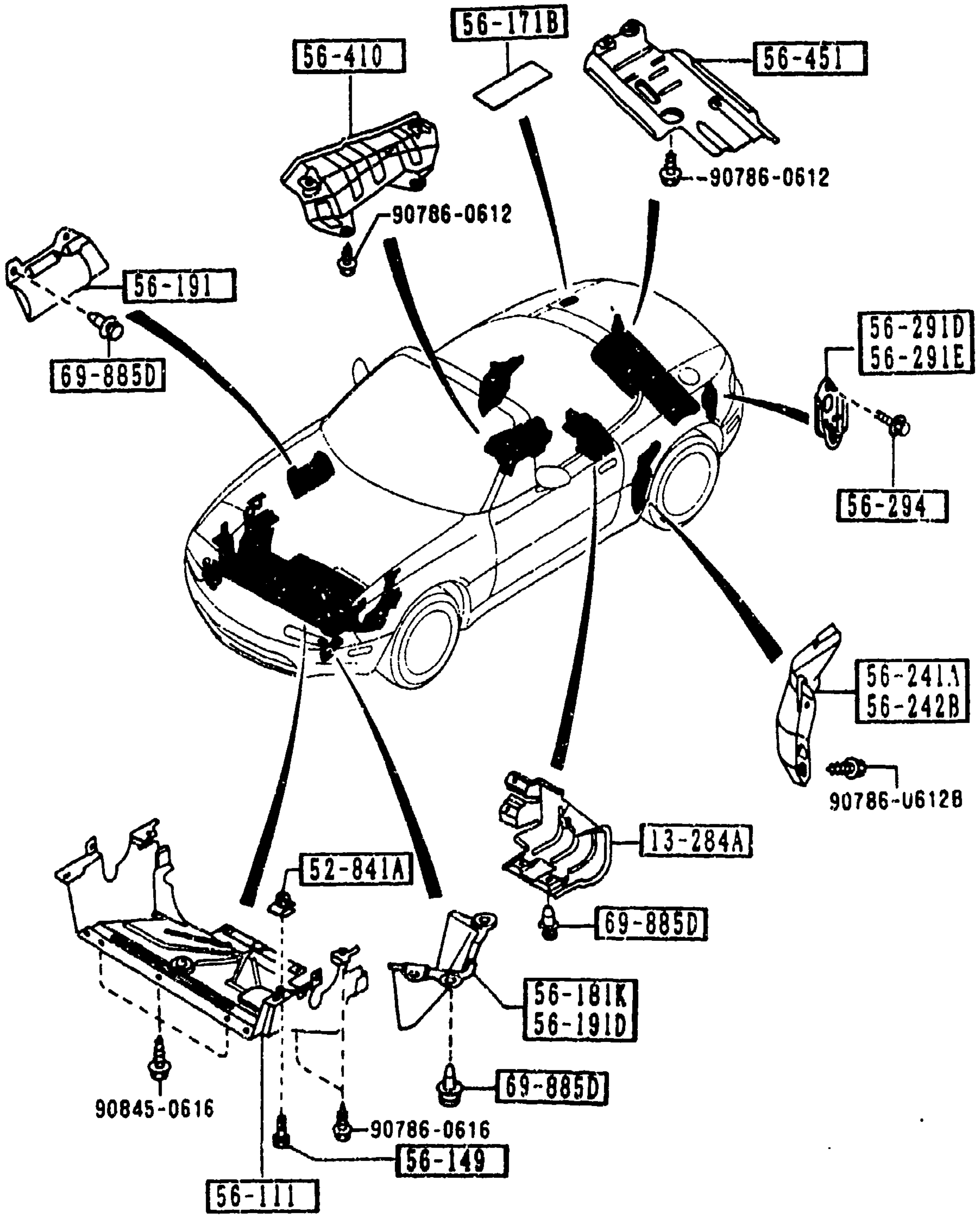
e
56-241J
f
56-242
(HOLE Φ22)
g
56-615F
(HOLE Φ40)
h
56-615M
(HOLE Φ15)
i
56-971
(HOLE Φ100)
j
56-052
(B092-56-052)
k
56-112B
l
56-052
(FB01-56-056)

5380 -1 * FLOOR ATTACHMENTS (HOLE COVERS)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-051		COVER,HOLE			
1011-56-051	4				
56-052		PLUG,DRAIN			
B092-56-052	9	D=12MM			
FB01-56-056	4				0701-
56-061A		COVER,HOLE			
8545-56-052	4				
56-112B		PLUG,DRAIN			
B092-56-053	3				-9516
56-241		PLUG,DRAIN			
0118-56-241	6				
56-241B		PLUG			
B001-56-051	6				
56-241J		PLUG,DRAIN			
8477-56-241	6				-9516
8477-56-241	9				9516-
56-242		PLUG,DRAIN			
0118-56-242B	18				
56-615F		PLUG,DRAIN			
0208-56-615	2				
56-615M		PLUG,DRAIN			
NA01-56-051	2				
56-971		COVER,HOLE			
8545-56-053	2				

9516 NA35**-103924
0701 NA35**-200041

5390 FLOOR ATTACHMENTS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56-242B
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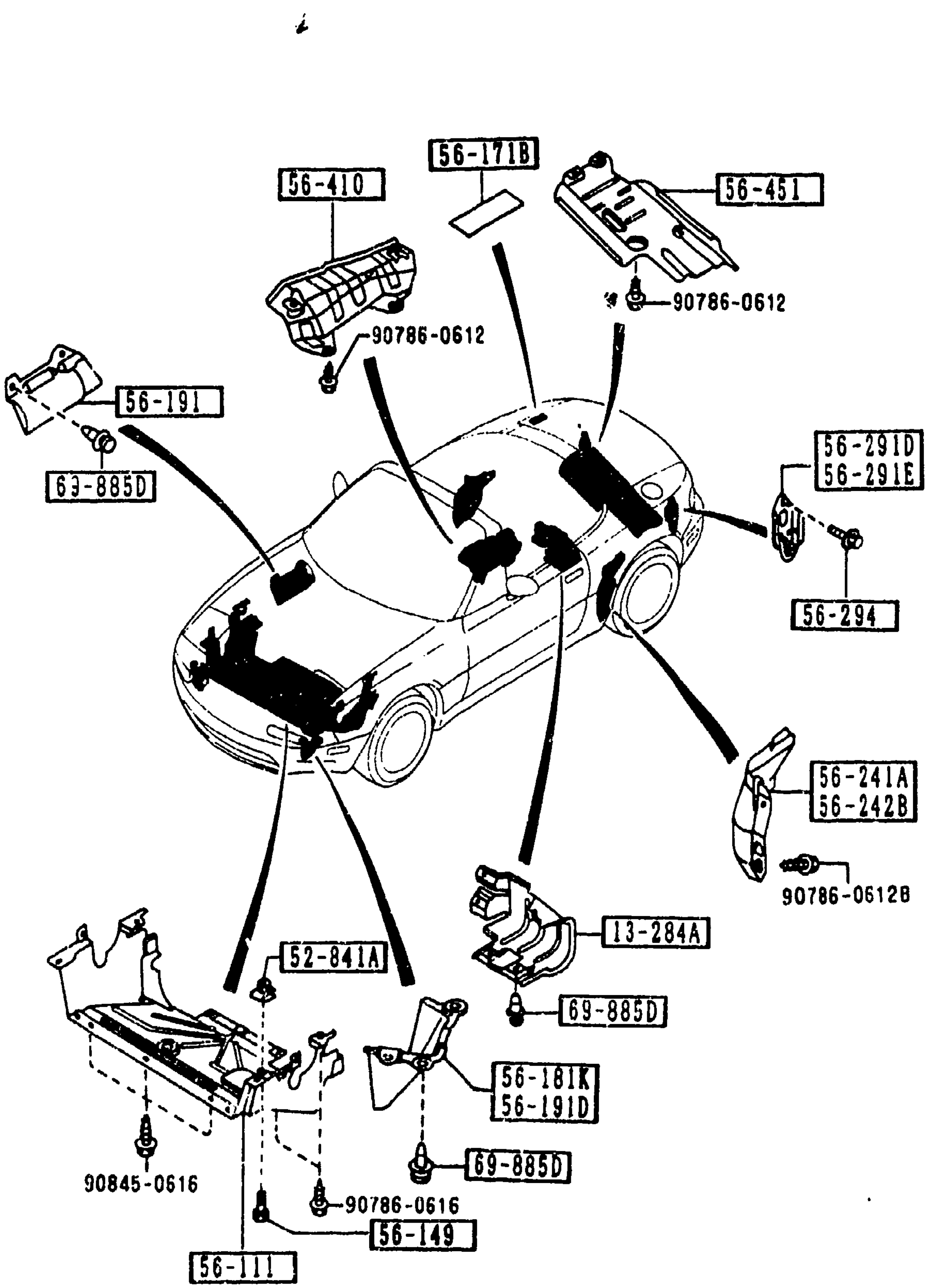
13-284A
52-841A
69-885D
56-181K
56-191D
69-885D
90845-0616
90786-0616
56-149
56-111

5390 -1 FLOOR ATTACHMENTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-284A		COVER,FUEL FILTER			
NA01-56-241A A (NA01-56-241D)	1				-9801
NA01-56-241B	1				9801-
52-841A		NUT,CLIP			
B455-56-135	1				9601-
56-111		COVER,UNDER			
NA01-56-111 AN(NA01-56-111A)	1				-9601
NA01-56-111A AN(NA01-56-111B)	1				9601-9621
NA01-56-111B AN(NA01-56-111C)	1				9621-0701
NA01-56-111C	1				0701-
56-149		SCREW,TAPPING-MUD GUARD			
B455-56-149	1				9601-
56-171B		PROTECTOR(R),RR FENDER			
NA01-56-171A	1				
56-181K		COVER(R),SENSOR-AIR BAG			
NA01-56-181A	1				-9501
56-191		SHIELD,SPLASH			
NA01-56-112	1				
56-191D		COVER(L),SENSOR-AIR BAG			
NA01-56-191A	1				-9501
56-241A		SHIELD(R),SPLASH-REAR			
NA01-56-311	1				
56-242B		SHIELD(L),SPLASH-REAR			
NA01-56-321	1				
56-291D		HOOK(R),TIE DOWN			
NA01-56-29XC	1				

9501 NA35**-102613
9601 NA35**-106797
9621 NA35**-110426
9801 NA35**-126490
0701 NA35**-200041

5390 FLOOR ATTACHMENTS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13-284A
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52-841A
56-181K
56-191D
69-885D
90845-0616
90786-0616
56-149
56-111

5390 -2 * FLOOR ATTACHMENTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-291E		HOOK(L),TIE DOWN			
NA01-56-290C	1				
56-294		SCREW,TIE DOWN HOOK			
NA01-56-294	4				
56-410		INSULATOR,HEAT-FRONT			
NA01-56-411	1				
56-451		INSULATOR			
NA01-56-451	1				
69-885D		FASTENER			
NA01-56-145	15				-9501
NA01-56-145	7				9501-

9501 NA35MM-102613

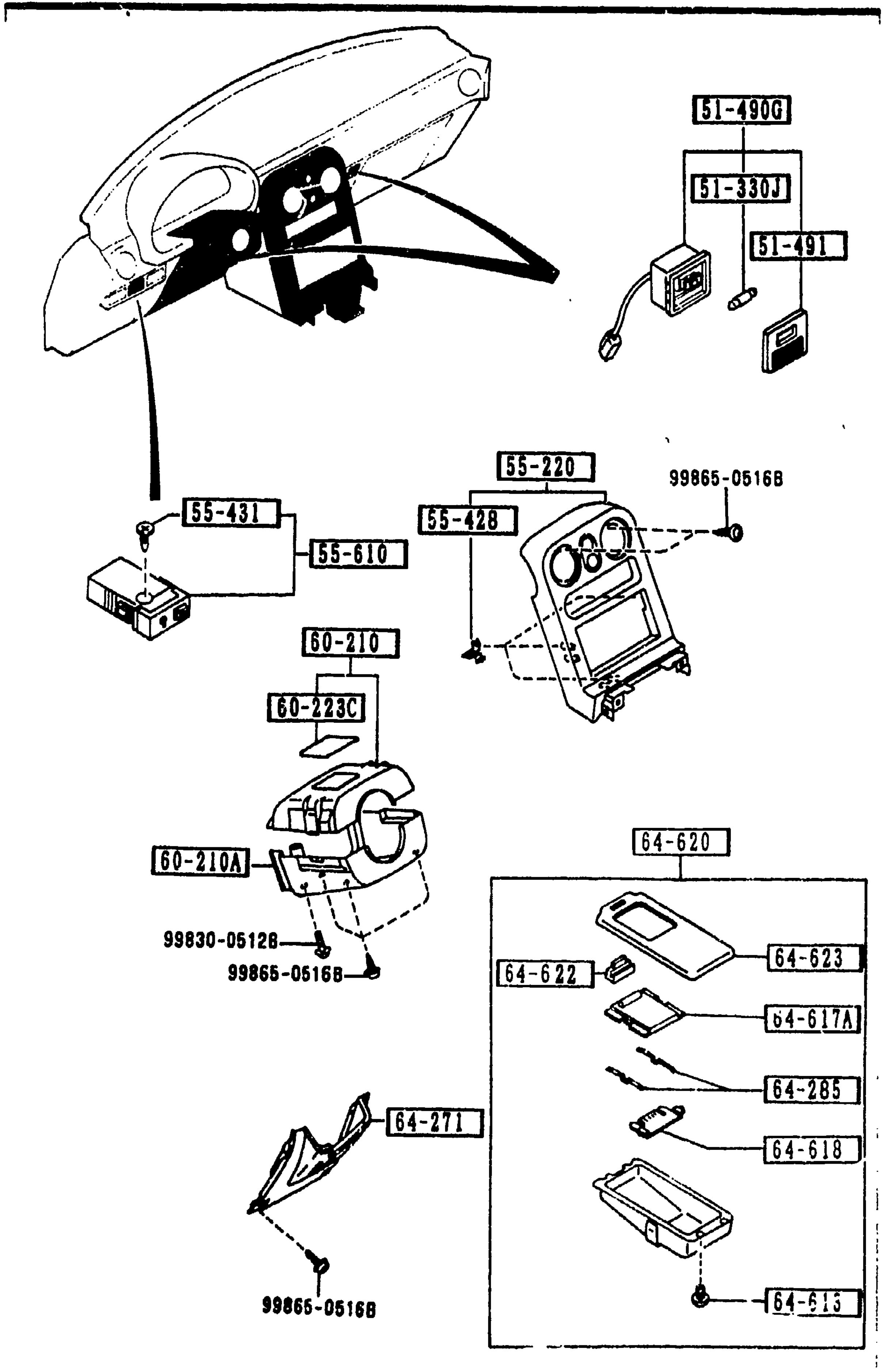
SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET,PIPING			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)			
2-M05	5103	HEAD LAMP RETRACTORS	2-N12	6150	COOLING UNIT (AIR CONDITIONER)			
2-D06	5105	FRONT COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
2-F06	5110	REAR COMBINATION LAMPS	2-D13	6330	SUNROOF			
2-I06	5120	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-J06	5180	REAR FINISHER	2-D14	6610	DASHBOARD SWITCHES			
2-L06	5230	BONNET	2-E14	6611	COMBINATION SWITCH			
2-N06	5260	TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)			
2-D07	5310	BODY PANELS (FRONT)	2-G14	6635	DOOR SWITCH & HORNS			
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL)	2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)			
2-I07	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)			
2-C08	5370	BODY PANELS (FLOOR)	2-L14	6700	WIRING HARNESSES(FRONT & REAR)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)	2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)			
2-G08	5390	FLOOR ATTACHMENTS	2-D15	6702	WIRING HARNESSES(DASHBOARD)			
2-C09	5500	DASHBOARD EQUIPMENTS	2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)			
2-E09	5520	METER HOOD	2-F15	6704	WIRING HARNESS CLAMPS			
2-F09	5530	SPEEDOMETER CABLE	2-[illegible]	[illegible]720	WINDSHIELD WASHER			
2-G09	5540	METER COMPONENTS	2-K15	[illegible]730	WINDSHIELD WIPERS			
2-I09	5560	DASHBOARD & RELATED PARTS	2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)			
2-L09	5570	CONSOLE	2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS			
2-C10	5580	VENTILATOR	2-C16	6840	TRIMS & SCUFF PLATES			
2-D10	5700	SEATS	2-E16	6860	FLOOR MATS & PADS			
2-K10	5790	SEAT BELTS	2-G16	6870	SERVICE TOOLS			
2-L10	5800	FRONT DOORS	2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS			
2-C11	5830	FRONT DOOR MECHANISMS	2-J16	6930	CAUTION PLATES & LABELS			
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS	2-L16	7250	QUARTER WINDOW & TRIMS			
2-C12	6100	HEATER						
2-D12	6110	HEATER UNIT COMPONENTS						

CATLOG-NO= AUNA01-07

DATE. 1992-02

5500 DASHBOARD EQUIPMENTS

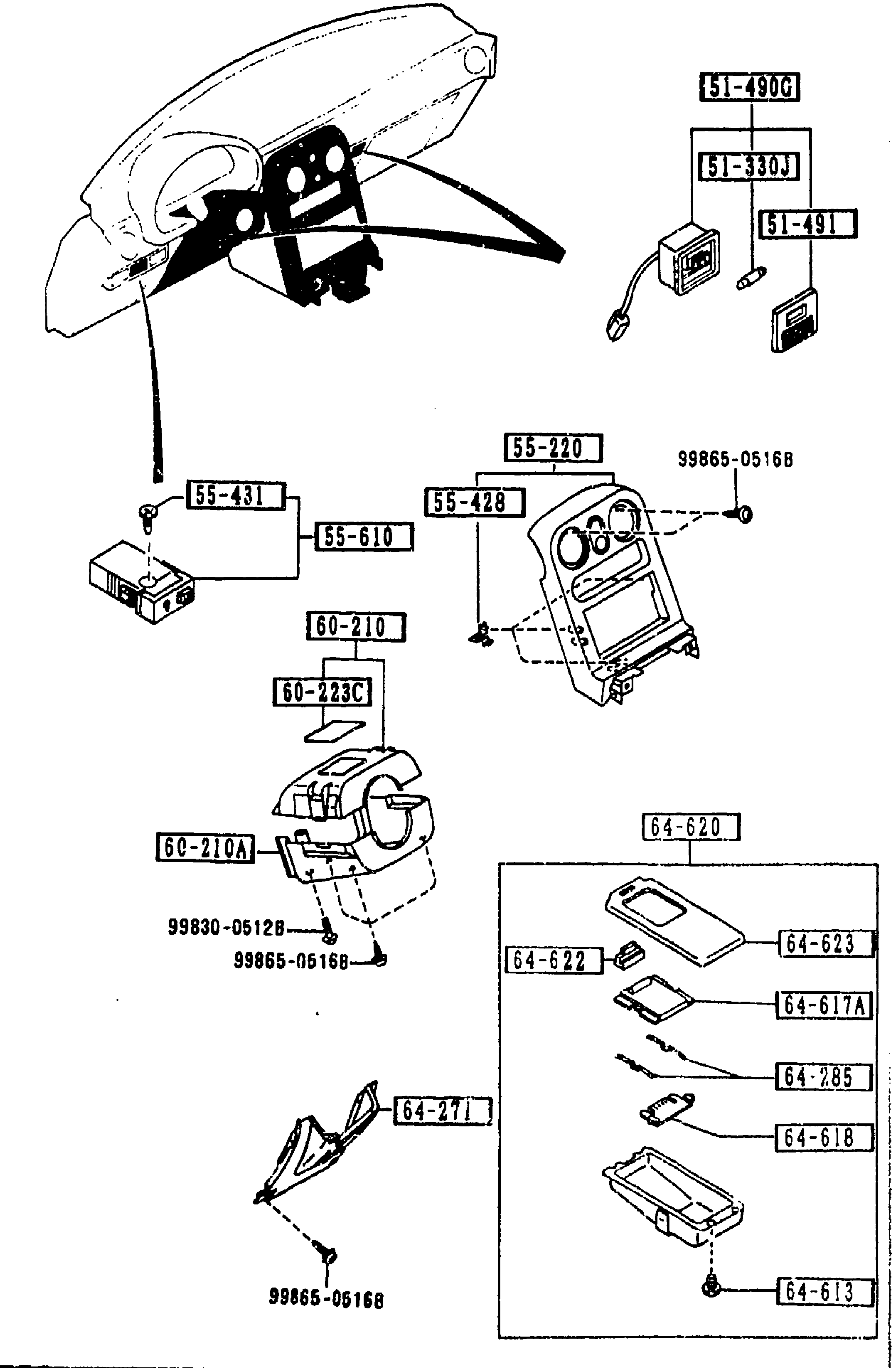

51-490G
51-330J
51-491
55-220
99865-05168
55-428
55-431
55-610
60-210
60-223C
60-210A
99830-05128
99865-05168
64-620
64-623
64-622
64-617A
64-285
64-271
64-618
64-613
99865-05168

5500 -1 DASHBOARD EQUIPMENTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-330J		BULB			
99701-5050	2	12V 5W			
51-490G		LAMP,PERSONAL			
NA01-51-490 A (NA01-51-490B)	2				-9902
00		NA0 BLACK			
NA01-51-490B	2				9902-
00		NA0 BLACK			
51-491		LENS,PERSONAL LAMP			
H197-51-491A	2				
00		BLACK			
55-220		PANEL,CENTER			
NA01-55-210 A (NA01-55-210A)	1				-9801
00		NA0 BLACK			
NA01-55-210A	1				9801-
00		NA0 BLACK			
55-428		SPRING,METER HOOD			
GJ21-55-428	3				
55-431		BULB,RESISTER			
BR70-55-431	1				
55-610		RESISTOR,PANEL LIGHT			
BR70-55-490	1				
60-210		COVER,COLUMN-UPPER			
NA01-60-220	1				
00		NA0 BLACK			
60-210A		COVER,COLUMN-LOWER			
NA01-60-230A	1				
00		NA0 BLACK			
60-223C		CAP,COLUMN COVER			

9801 NA35**-116316
9902 NA35**-119435

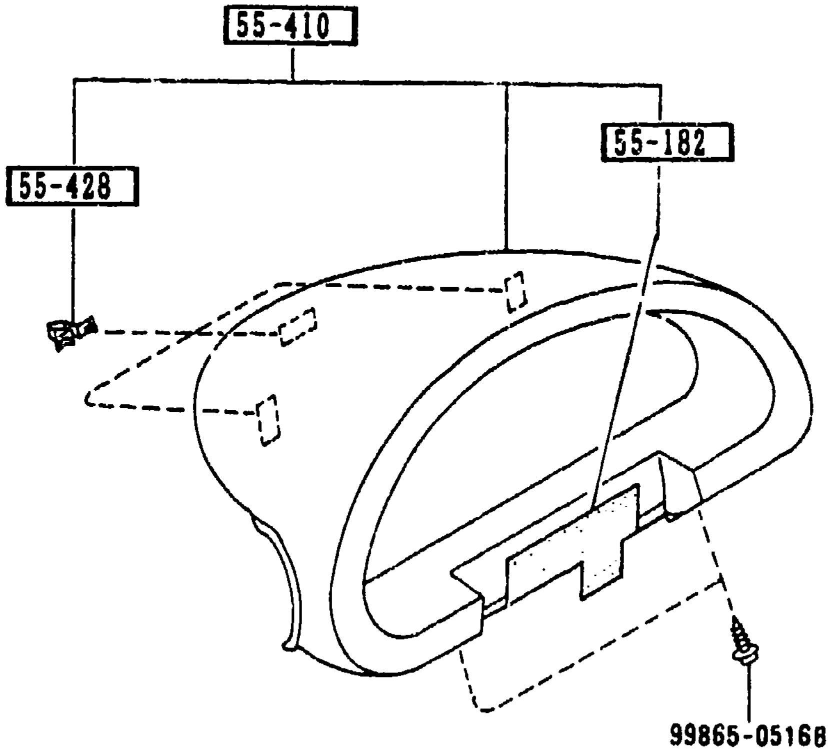
5500 DASHBOARD EQUIPMENTS


51-490G
51-330J
51-491
55-220
99865-05168
55-428
55-431
55-610
60-210
60-223C
60-210A
99830-05128
99865-05168
64-620
64-623
64-622
64-617A
64-285
64-618
64-271
99865-05168
64-613

5500 -2 * DASHBOARD EQUIPMENTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-60-223	1				
00		NA0 NA1 BLACK			
64-271		PANEL,CENTER-LOWER			
NA01-64-270B	1				-9401
00		NA0 BLACK			
NA01-64-270C	1				9401-
00		NA0 BLACK			
64-285		SPRING,ASH TRAY			
NA01-64-612	2				
64-613		SCREW,ASH TRAY			
NA01-64-613	4				
64-617A		LID,ASH TRAY			
NA01-64-617	1				
00		NA0 NA1 BLACK			
64-618		PLATE,ASH TRAY			
NA01-64-618	1				
64-620		TRAY,ASH			
NA01-64-610	1				
00		NA0 BLACK			
NA01-64-610A	1				0A01-0C01
64-622		LIGHT,PLATE-ASH TRAY			
NA01-64-622	1				
64-623		CASE'OUT',ASH TRAY			
NA01-64-623	1				
00		NA0 BLACK			

9401 NA35**-100090
0A01 NA35**-213219
0C01 NA35**-220813

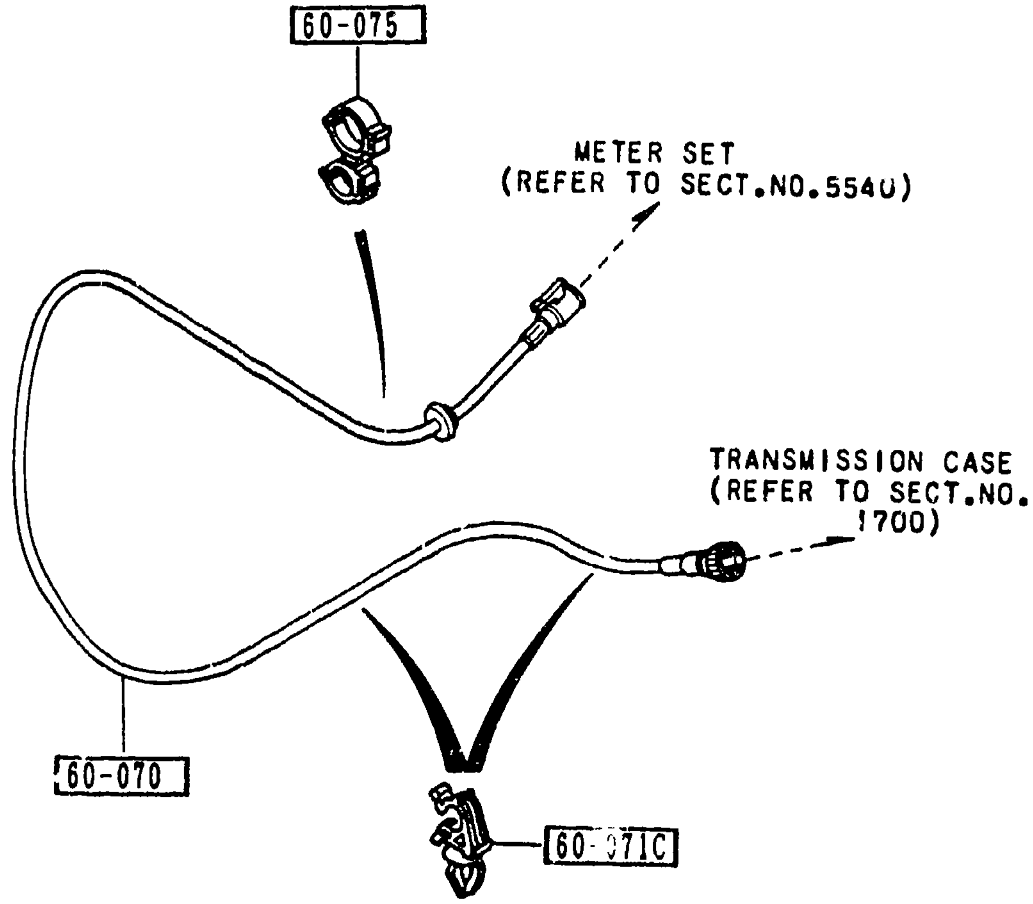


5520 -1 * METER HOOD

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
55-182		RUBBER,BLIND			
NA01-55-182	1				9609-
55-410		HOOD,METER			
NA01-55-420A	1				-9609
00		NA0 NA1 BLACK			
NA01-55-420B	1	(STD COAT BLACK/BLACK)			9609-
00		NA0 NA1 BLACK			
55-428		SPRING,METER HOOD			
GJ21-55-428	3				

9609 NA35**-108360

5530 SPEEDOMETER CABLE

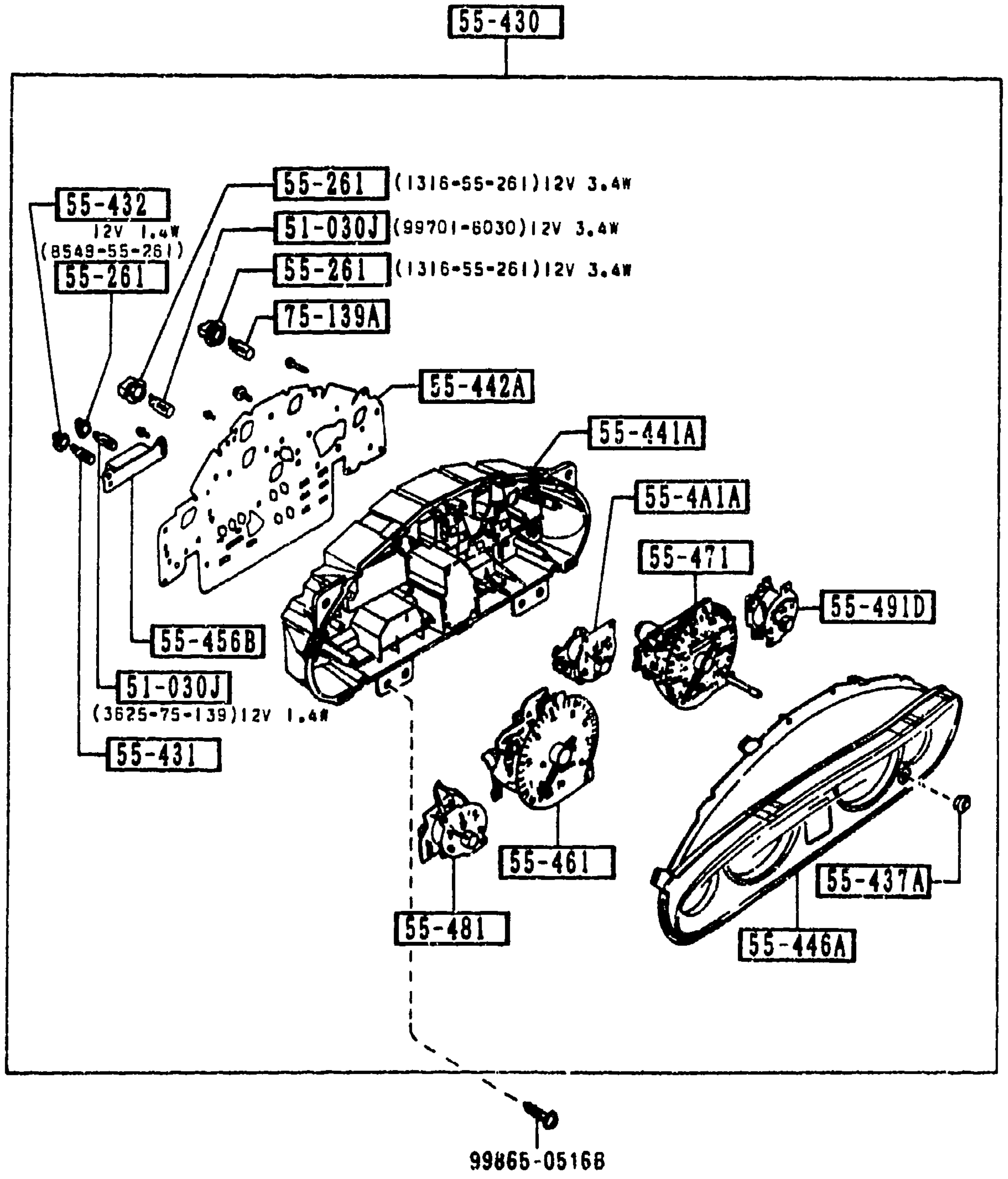

60-075
METER SET
(REFER TO SECT.NO.5540)
TRANSMISSION CASE
(REFER TO SECT.NO.
1700)
60-070
60-071C

5530 -1 * SPEEDOMETER CABLE

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
60-070		CABLE,SPEEDOMETER			
NA03-60-070	1	(AT)			
NA01-60-070A G (NA01-60-070B)	1				-9613
NA01-60-070B	1	(MT)			9613-
60-071C		CLIP			
UB40-60-071	2				-0201
NA03-60-071	2				0201-
60-075		CLIP'A',SPEEDOMETER CABLE			
NA01-60-075	1				

9613 NA35**-109017
0201 NA35**-137180

5540 METER COMPONENTS

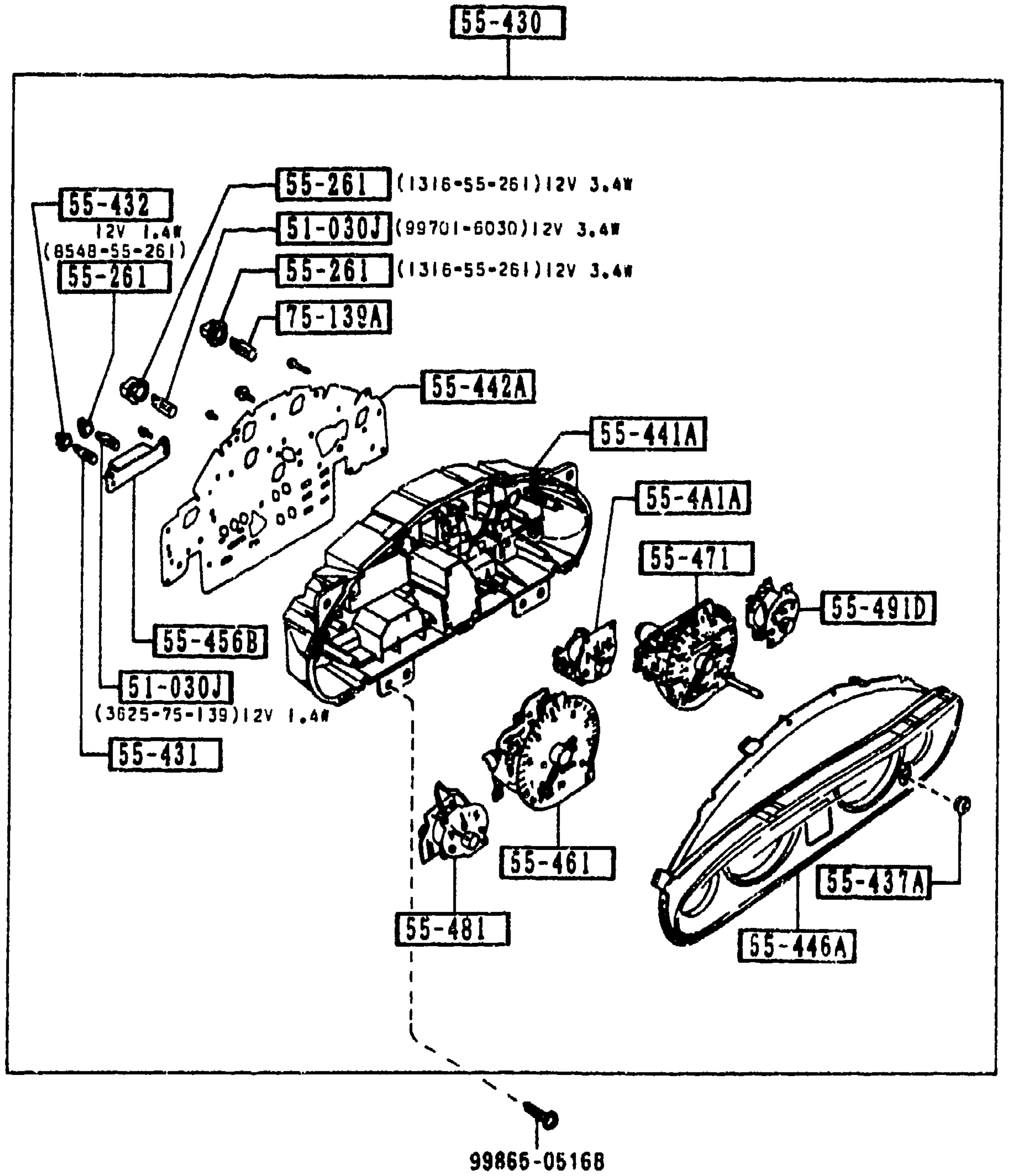

55-430
55-261 (1316-55-261)12V 3.4W
55-432
12V 1.4W
(8548-55-261)
55-261
51-030J (99701-6030)12V 3.4W
55-261 (1316-55-261)12V 3.4W
75-139A
55-442A
55-441A
55-4A1A
55-471
55-491D
55-456B
51-030J
(3625-75-139)12V 1.4W
55-431
55-461
55-437A
55-481
55-446A
99866-0516B

5540 -1 METER COMPONENTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-030J		BULB			
3625-75-139	5	12V 1.4W,FOR WARNING (MT)			
	6	(AT)			
99701-6030	3	12V 3.4W			
55-261		SOCKET			
1316-55-261	7	12V 3.4W			
8548-55-261	5	12V 1.4W BLACK (MT)			
	6	(AT)			
55-4A1A		METER,OIL PRESSURE			
NA01-55-4A1	1				
55-430		METER SET			
NA01-55-430A AN(NA01-55-430B)	1				-9B20
NA03-55-430A A (NA03-55-430B)	1				-0701
NA01-55-430B A (NA01-55-430C)	1				9B20-0701
NA01-55-430C	1	(MT)			0701-
NA03-55-430B	1	(AT)			0701-
55-431		BULB,RESISTER			
NA01-55-431	1				
55-432		SOCKET,METER SET			
NA01-55-432	1				
55-437A		GROMMET,KNOB-METER SET			
NA01-55-437	1				
55-441A		CASE,METER			
NA01-55-441	1				-9B20
NA01-55-441A	1				9B20-0701
NA01-55-441B	1				0701-

9B20 NA35**-128848
0701 NA35**-200041

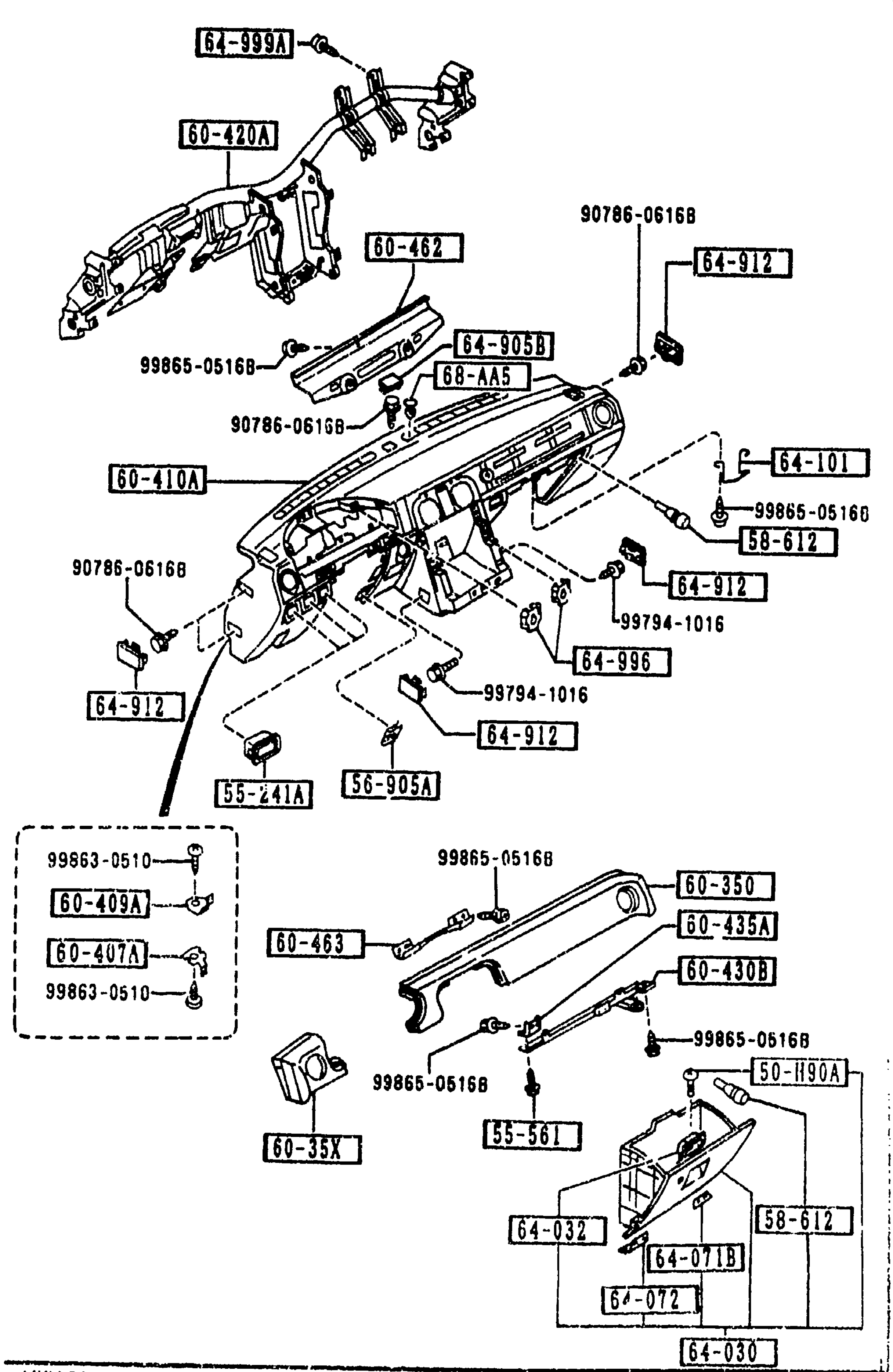
5540 METER COMPONENTS


55-430
55-432
12V 1.4W
(8548-55-261)
55-261
55-261 (1316-55-261)12V 3.4W
51-030J (99701-6030)12V 3.4W
55-261 (1316-55-261)12V 3.4W
75-139A
55-442A
55-441A
55-4A1A
55-471
55-491D
55-456B
51-030J
(3625-75-139)12V 1.4W
55-431
55-461
55-481
55-437A
55-446A
99866-05168

5540 -2 * METER COMPONENTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
55-442A		PLATE,PRINT			
NA01-55-442	1	(MT)			-9B20
NA03-55-442A G (NA03-55-442B)	1				-0701
NA01-55-442A G (NA01-55-442B)	1				9B20-0701
NA01-55-442B	1	(MT)			0701-
NA03-55-442B	1	(AT)			0701-
55-446A		PLATE,WINDOW			
NA01-55-446	1				-0701
NA01-55-446A	1				0701-
55-456B		RESISTOR,METER			
NA01-55-476	1	(MT)			-9B20
55-461		TACHOMETER			
NA01-55-461 G (NA01-55-461A)	1				-0701
NA03-55-461 G (NA03-55-461A)	1				-0701
NA01-55-461A	1	(MT)			0701-
NA03-55-461A	1	(AT)			0701-
55-471		SPEEDMETER			
NA01-55-471 A (NA01-55-471A)	1				-0701
NA01-55-471A	1				0701-
55-481		METER,FUEL			
NA01-55-481	1				
55-491D		METER,THERMO			
NA01-55-491	1				
75-139A		BULB			
B491-55-431	4				

9B20 NA35**-128848
0701 NA35**-200041


64-999A
60-420A
60-462
90786-06168
64-912
99865-05168
64-905B
68-AA5
90786-06168
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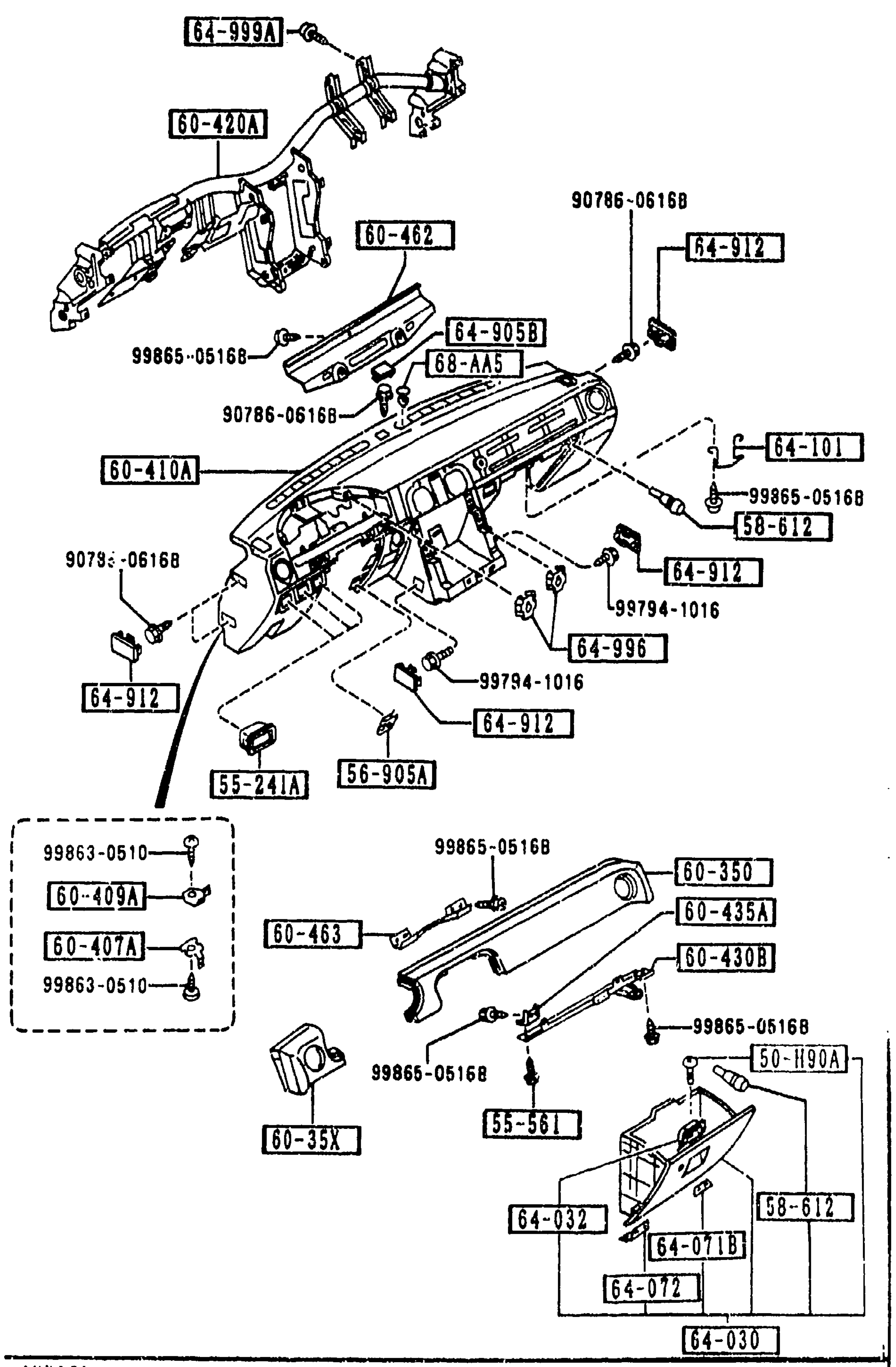
60-410A
99865-05168
58-612
90786-06168
64-912
99794-1016
64-996
64-912
99794-1016
64-912
55-241A
56-905A
99863-0510
60-409A
60-407A
99863-0510
99865-05168
60-350
60-463
60-435A
60-430B
99865-05168
99865-05168
50-H90A
60-35X
55-561
64-032
58-612
64-071B
64-072
64-030

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-H90A		SCREW,MOULD-FRT WIND			
LA01-50-H90	1				9801-
55-241A		BOX,INSTRUMENT PANEL			
NA01-55-241A	3				
00		NA0 NA1 BLACK			
55-561		BOLT,INST. PANEL			
B455-55-561	1				
56-905A		NUT,SPRING			
B092-60-408	4				
58-612		CUSHION,RUBBER			
B092-64-046	3				
60-35X		PAD,INSTRUMENT PANEL			
NA01-60-35X	1				
00		NA0 BLACK			
60-350		PAD,CRUSH			
NA01-60-350	1				
00		NA0 BLACK			
60-407A		SPRING,NO.1			
NA01-60-407	2				
60-409A		SPRING,NO.2			
NA01-60-409	2				
60-410A		PANEL,INSTRUMENT			
NA01-60-401B A (NA01-60-401C)	1				-9807
00		NA0 BLACK			
NA01-60-401C	1	(STD COAT BLACK/BLACK)			9807-
00		NA0 BLACK			
60-420A		FRAME,INST.PANEL			
NA01-60-420D	1				

9801 NA35**-116316
9807 NA35**-127226


64-999A
60-420A
60-462
90786-06168
64-912
64-905B
68-AA5
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90786-06168
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64-101
99865-05168
58-612
9079[illegible]-06168
64-912
99794-1016
64-996
64-912
99794-1016
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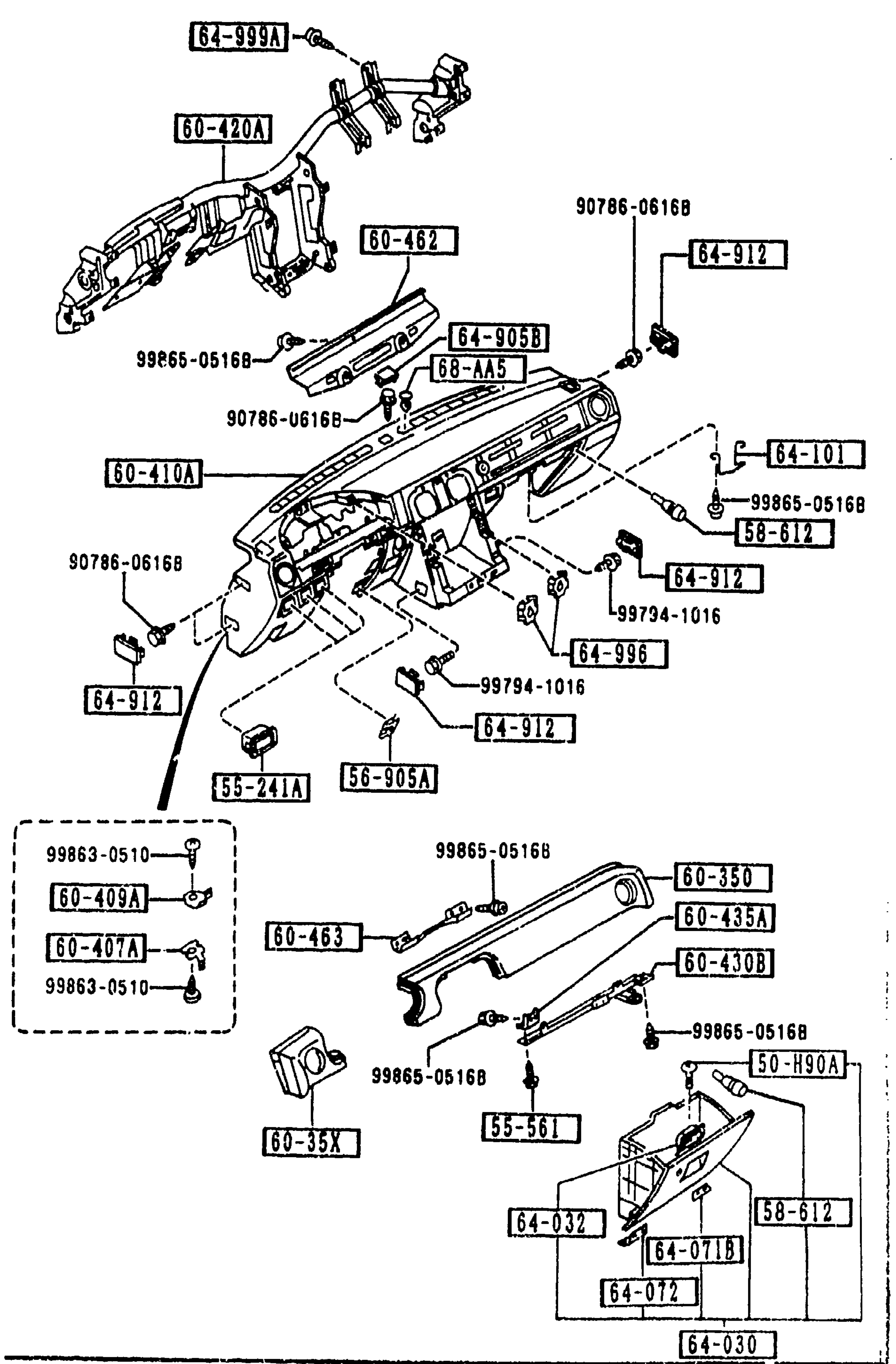
55-241A
56-905A
99863-0510
60-409A
60-407A
99863-0510
99865-05168
60-350
60-435A
60-463
60-430B
99865-05168
99865-05168
50-H90A
55-561
60-35X
64-032
58-612
64-071B
64-072
64-030

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
60-430B		MEMBER(R),INST. PANEL			
NA01-60-430A A (NA01-60-430B)	1				-9701
NA01-60-430B A (NA01-60-430C)	1				9701-0202
NA01-60-430C	1				0202-
60-435A		BRACKET,MEMBER			
NA01-60-435	1				
60-462		BRACKET,INST. PANEL			
NA01-60-462 A (NA01-60-462A)	1				-9801
NA01-60-462A	1				9801-
60-463		BRACKET,CRUSH PAD			
NA01-60-463	1				
64-030		BOX,GLOVE			
NA01-64-030C A (NA01-64-030D)	1				-9801
00		NA0 BLACK			
NA01-64-030D	1				9801-
00		NA0 BLACK			
64-032		COVER,BOX			
NA01-64-032A A (NA01-64-032B)	1				-9801
00		NA0 BLACK			
NA01-64-032B	1				9801-
00		NA0 BLACK			
64-071B		HINGE(R),GLOVE LID			
NA01-64-03X	1				
64-072		HINGE(L),GLOVE LID			
NA01-64-03Y	1				
64-101		STRIKER			
NA01-64-101	1				

9701 NA35**-111969
9801 NA35**-116316
0202 NA35**-137399

5560 DASHBOARD & RELATED PARTS


64-999A
60-420A
60-462
90786-0616B
64-912
99865-0516B
64-905B
68-AA5
90786-0616B
60-410A
64-101
99865-0516B
58-612
90786-0616B
64-912
99794-1016
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55-241A
56-905A
99863-0510
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99865-0516B
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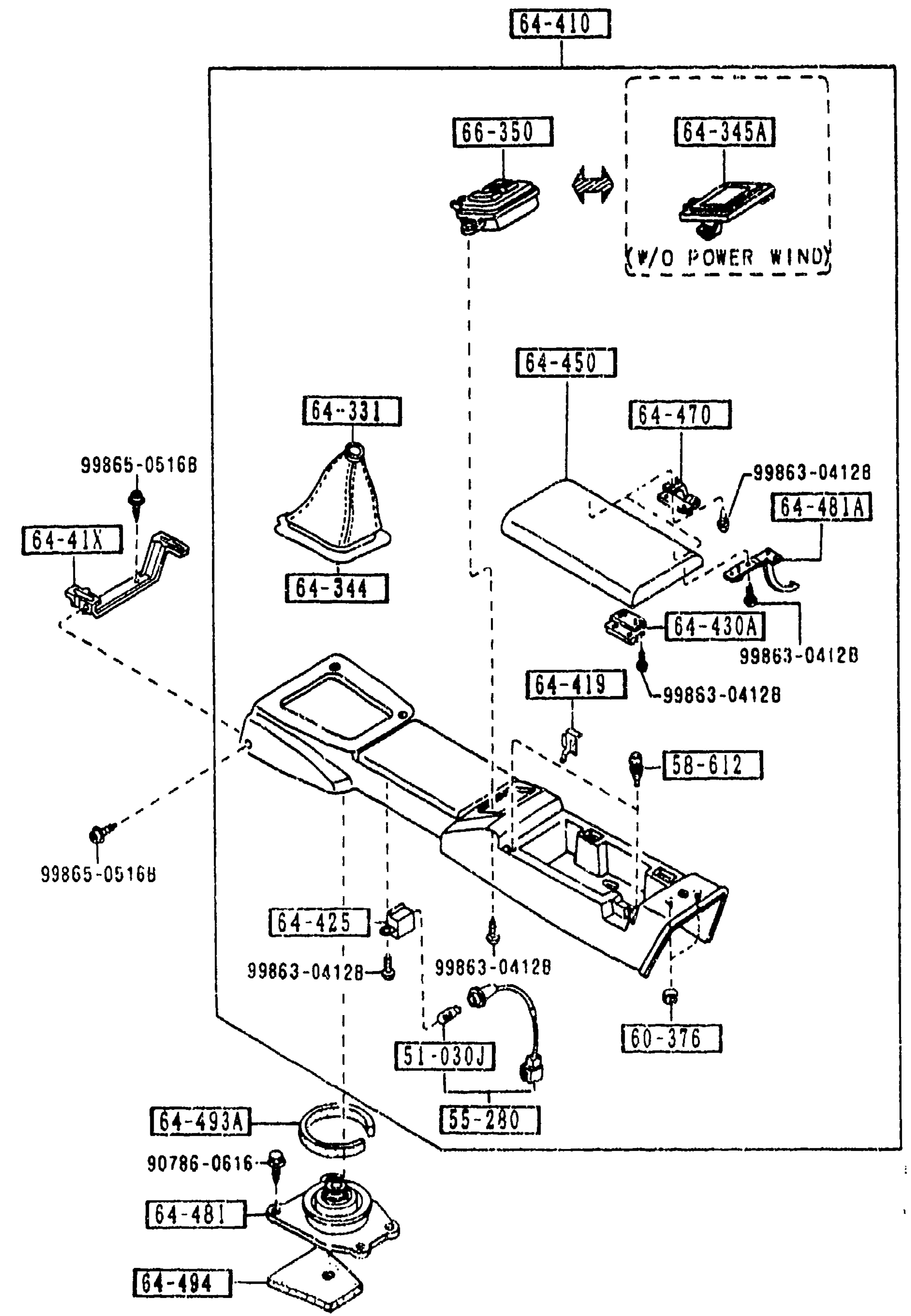
60-435A
60-430B
99865-0516B
99865-0516B
50-H90A
60-35X
55-561
64-032
58-612
64-071B
64-072
64-030

5560 -3 * DASHBOARD & RELATED PARTS

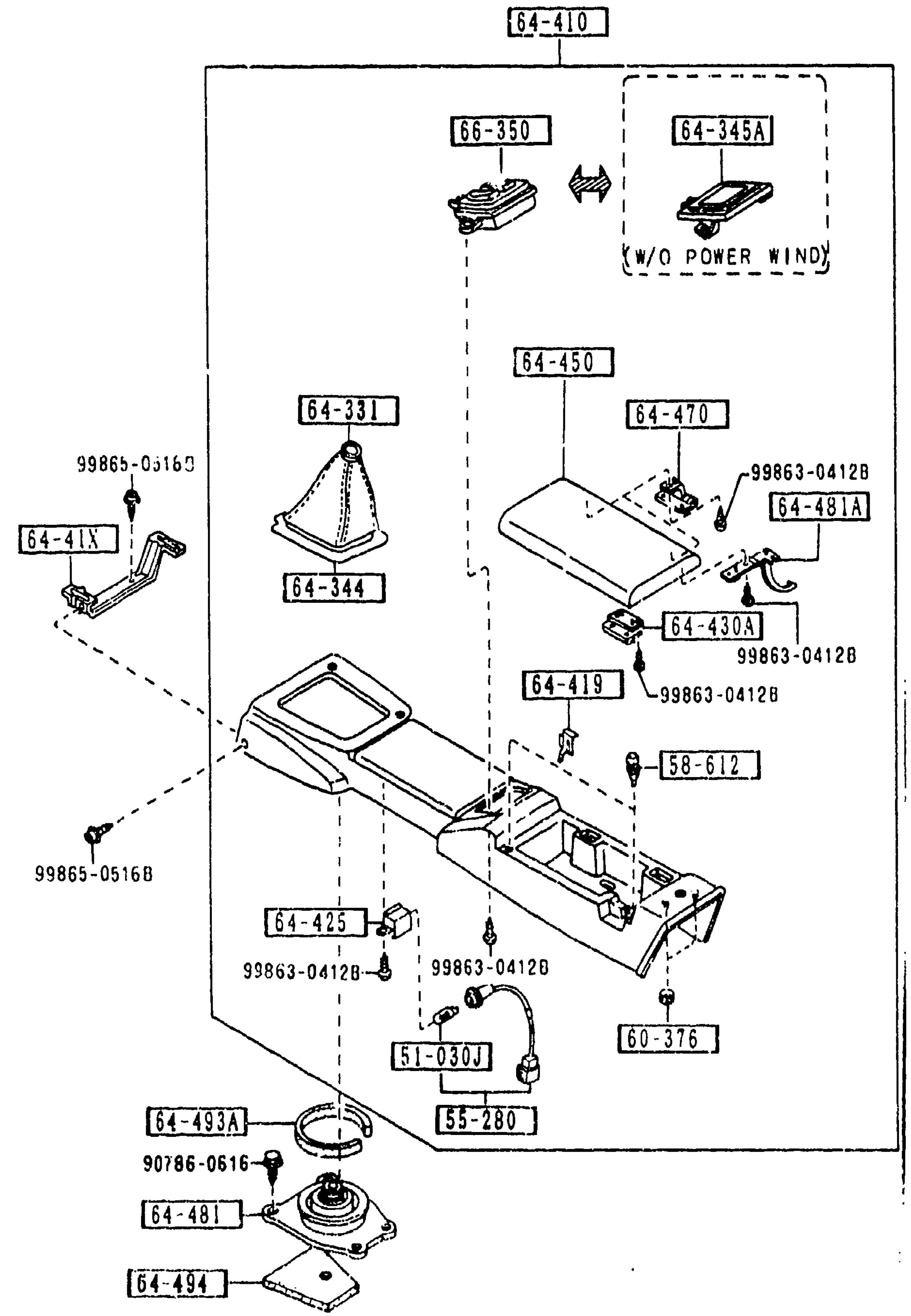
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
64-905B		COVER,HOLE-(C)			
NA01-64-905	1	(STD COAT BLACK/BLACK)			
00		NAO BLACK			
64-912		COVER,SIDE			
NA01-64-912	6				
00		NAO BLACK			
64-996		NUT,EXPANSION			
GJ21-64-996	8				
64-999A		SCREW,TAPPING			
W201-64-999	37				
68-AA5		FASTENER,DOOR TRIM			
W201-68-AA5	4				
00		NAO BLACK			

5570 CONSOLE


64-410
66-350
64-345A
(W/O POWER WIND)
64-450
64-470
64-331
99865-0516B
99863-0412B
64-481A
64-41X
64-344
64-430A
99863-0412B
64-419
99863-0412B
58-612
99865-0516B
64-425
99863-0412B
99863-0412B
51-030J
60-376
55-280
64-493A
90786-0616
64-481
64-494

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-030J		BULB			
3625-75-139	1	12V 1.4W,FOR WARNING			
55-280		BULB & SOCKET			
NA01-55-280	1	(MT)			
NA01-55-280	1	(AT)			-0125
NA06-55-280	1	(AT)			0125-
58-612		CUSHION,RUBBER			
B092-64-046	2				
60-376		NUT,TOP-CRUSH PAD			
B092-60-376	2				
64-331		BOOT,CHANGE			
NA01-64-331	1	(MT)			
00		NA0 BLACK			
64-344		PLATE,BACK-BOOTS RING			
NA01-64-344B	1	(MT)			
64-345A		BOX,COIN-CONSOLE			
NA01-64-437	1	BASE, (W/O POWER WIND)			
00		NA0 BLACK			
64-41X		BRACKET,REAR CONSOLE			
NA01-64-416	1				
64-410		CONSOLE,REAR			
NA01-64-410B	1	BASE, (URETHANE KNOB,W/O POWER WIND.) (MT)			
00		NA0 BLACK			
NA02-64-410B	1	PKG-OPT, (URETHANE KNOB,W/POWER WIND.) (MT)			
00		NA0 BLACK			
NA03-64-410A	1	BASE, (URETHANE KNOB,W/O P			

0125 NA35**-136059

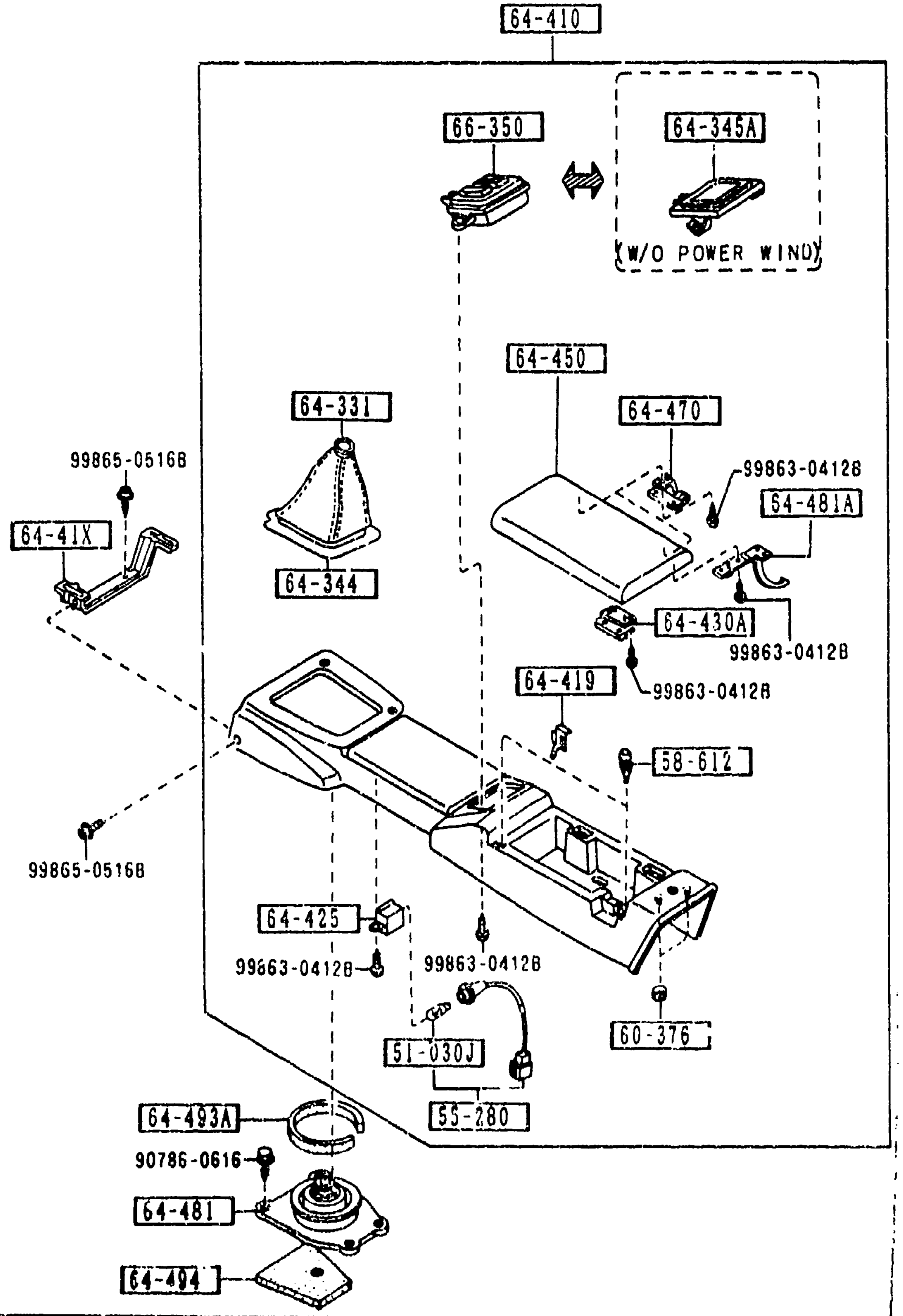

64-410
66-350
64-345A
(W/O POWER WIND)
64-450
64-470
64-331
99865-05168
64-41X
64-344
99863-04128
64-481A
64-430A
99863-04128
64-419
99863-04128
58-612
99865-05168
64-425
99863-04128
99863-04128
51-030J
55-280
60-376
64-493A
90786-06168
64-481
64-494

5570 -2 CONSOLE

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D		OWER WIND.) (AT)			
00		NAO BLACK			
NA06-64-410B	1	PKG-OPT, (URETHANE KNOB,W/POWER WIND.) (AT)			
00		NAO BLACK			
64-419		CLIP,HARNESS-HAND BRAKE			
H260-64-419	1				
64-425		CASE,LAMP			
NA01-64-414	1				
64-430A		LOCK,CONSOLE-REAR			
FB01-64-430	1				
64-450		LID,CONSOLE			
NA01-64-450A	1				
00		NAO BLACK			
64-470		HINGE			
NA01-64-45XA	2				
00		NAO BLACK			
64-481		INSULATOR NO.1,CHANGE			
NA01-64-481 A (NA01-64-481A)	1				-9616
NA01-64-481A	1	(MT)			9616-
64-481A		STOPPER,CONSOLE LID			
NA01-64-452	1				
00		NAO NAO NA1 BLACK			
64-493A		PACK,SILENT			
H001-64-493	1	(MT)			
64-494		PAD,CHANGE BOOT			
FB01-64-495	1	(MT)			

9616 NA35**-109700

5570 CONSOLE


64-410
66-350
64-345A
(W/O POWER WIND)
64-450
64-470
99863-04128
64-481A
64-331
99865-0516B
64-41X
64-344
64-430A
99863-0412B
64-419
99863-0412B
58-612
99865-0516B
64-425
99863-0412B
99863-0412B
51-030J
60-376
55-280
64-493A
90786-0616
64-481
64-494

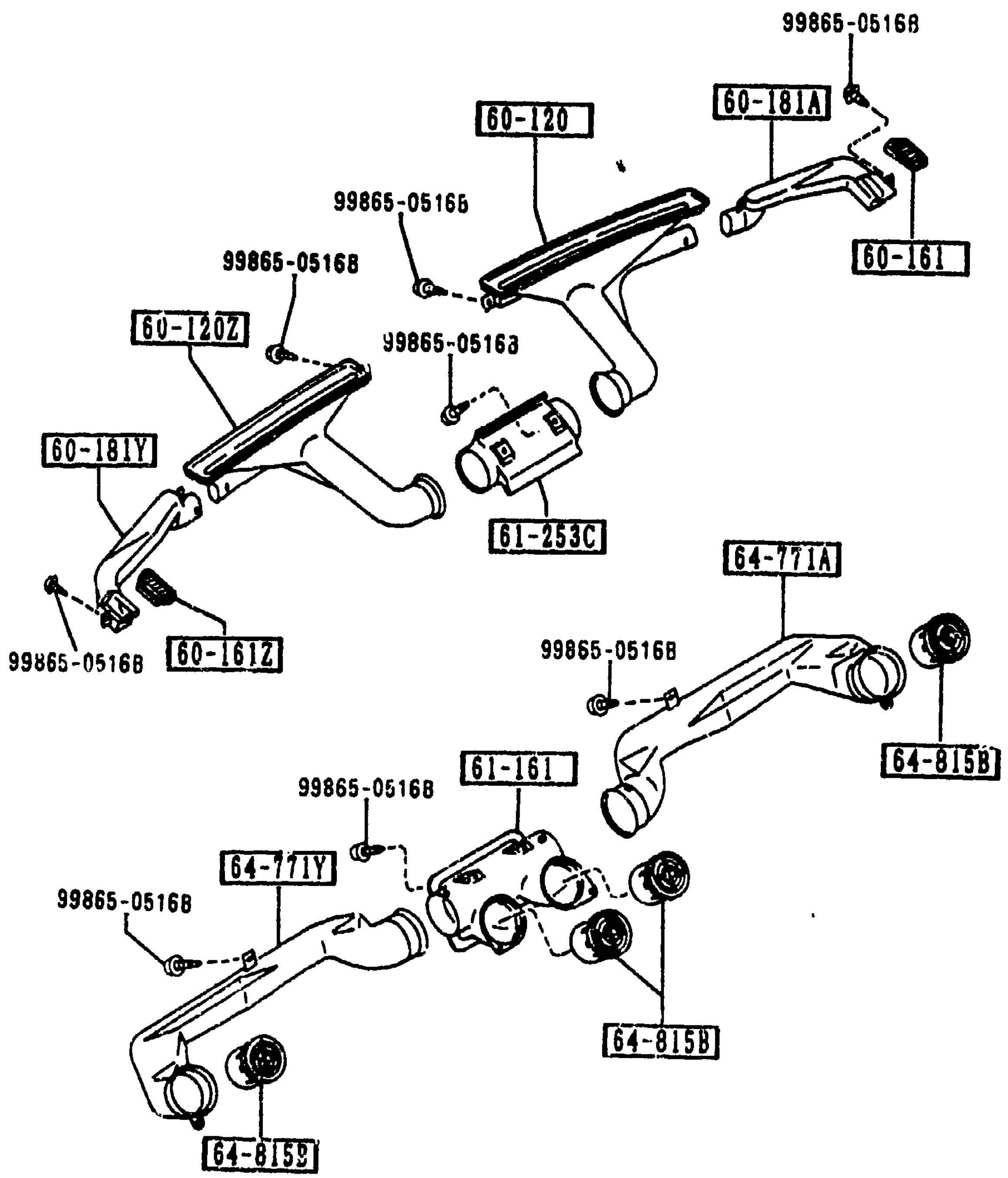
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-350		SWITCH,POWER WINDOW			
NA01-66-350A	1	PKG-OPT, V-SPECIAL, (W/POWER WIND) (MT)			
00		NA0 BLACK			
NA03-66-350	1	PKG-OPT, V-SPECIAL, (W/POWER WIND) (AT)			
00		NA0 BLACK			

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS
2-E05	5000	FRONT BUMPER
2-H05	5010	REAR BUMPER
2-J05	5030	WINDOW MOULDING & COWL GRILLES
2-L05	5100	HEAD LAMPS
2-M05	5103	HEAD LAMP RETRACTORS
2-D06	5105	FRONT COMBINATION LAMPS
2-F06	5110	REAR COMBINATION LAMPS
2-I06	5120	LICENSE LAMPS
2-J06	5180	REAR FINISHER
2-L06	5230	BONNET
2-N06	5260	TRUNK LID
2-D07	5310	BODY PANELS (FRONT)
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)
2-H07	5330	BODY PANELS (DASH & COWL PANEL)
2-I07	5340	BODY PANELS (SIDE)
2-C08	5370	BODY PANELS (FLOOR)
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)
2-G08	5390	FLOOR ATTACHMENTS
2-C09	5500	DASHBOARD EQUIPMENTS
2-E09	5520	METER HOOD
2-F09	5530	SPEEDOMETER CABLE
2-G09	5540	METER COMPONENTS
2-I09	5560	DASHBOARD & RELATED PARTS
2-L09	5570	CONSOLE
2-C10	5580	VENTILATOR
2-D10	5700	SEATS
2-K10	5790	SEAT BELTS
2-L10	5800	FRONT DOORS
2-C11	5830	FRONT DOOR MECHANISMS
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS
2-C12	6100	HEATER
2-D12	6110	HEATER UNIT COMPONENTS

LO.NO	SEC.NO	SECTION NAME
2-E12	6115	HEATER CONTROLS COMPONENTS
2-F12	6120	HEATER BLOWER COMPONENTS
2-G12	6130	AIR CONDITIONER
2-K12	6135	O RING SET,PIPING
2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)
2-H12	6150	COOLING UNIT (AIR CONDITIONER)
2-C13	6300	WINDOW GLASSES
2-D13	6330	SUNROOF
2-M13	6600	SWITCHES & RELAYS (ENGINE)
2-D14	6610	DASHBOARD SWITCHES
2-E14	6611	COMBINATION SWITCH
2-F14	6630	RELAYS & UNIT (BODY)
2-G14	6635	DOOR SWITCH & HORNS
2-H14	6640	AUTO CRUISE CONTROL SYSTEM
2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)
2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)
2-L14	6700	WIRING HARNESSES(FRONT & REAR)
2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)
2-D15	6702	WIRING HARNESSES(DASHBOARD)
2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)
2-F15	6704	WIRING HARNESS CLAMPS
2-I15	6720	WINDSHIELD WASHER
2-K15	6730	WINDSHIELD WIPERS
2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)
2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS
2-[illegible]	6840	TRIMS & SCUFF PLATES
2-E1[illegible]	6860	FLOOR MATS & PADS
2-G16	6870	SERVICE TOOLS
2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS
2-J16	6930	CAUTION PLATES & LABELS
2-L16	7250	QUARTER WINDOW & TRIMS

LO.NO	SEC.NO	SECTION NAME
3-C03	7900	ACCESSORIES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60-181A
60-120
99865-05166
60-161
99865-05168
60-120Z
99865-05168
60-181Y
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64-771A
99865-05168
60-161Z
99865-05168
64-815B
99865-05168
61-161
64-771Y
99865-05168
64-815B
64-815B

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
60-120		NOZZLE(R),DEFROSTER			
NA01-60-121	1				
60-120Z		NOZZLE(L),DEFROSTER			
NA01-60-141	1				
60-161		GRILLE(R),DEMISTER			
NA01-60-161	1	(STD COAT BLACK/BLACK)			
00		NA0 BLACK			
60-161Z		GRILLE(L),DEMISTER			
NA01-60-171	1	(STD COAT BLACK/BLACK)			
00		NA0 BLACK			
60-181A		DUCT(R),SIDE DEMIST.			
NA01-60-183	1				
60-181Y		DUCT(L),SIDE DEMIST.			
NA01-60-193	1				
61-161		DUCT,CENTER			
NA01-61-161	1				
61-253C		HOSE(C),DEFROSTER			
NA01-61-253	1				
64-771A		DUCT NO.1(R)			
NA01-64-741	1				
64-771Y		DUCT NO.1(L)			
NA01-64-841	1				
64-815B		LOUVER,VENTILATOR			
NA01-64-31X	4				
00		NA0 BLACK			

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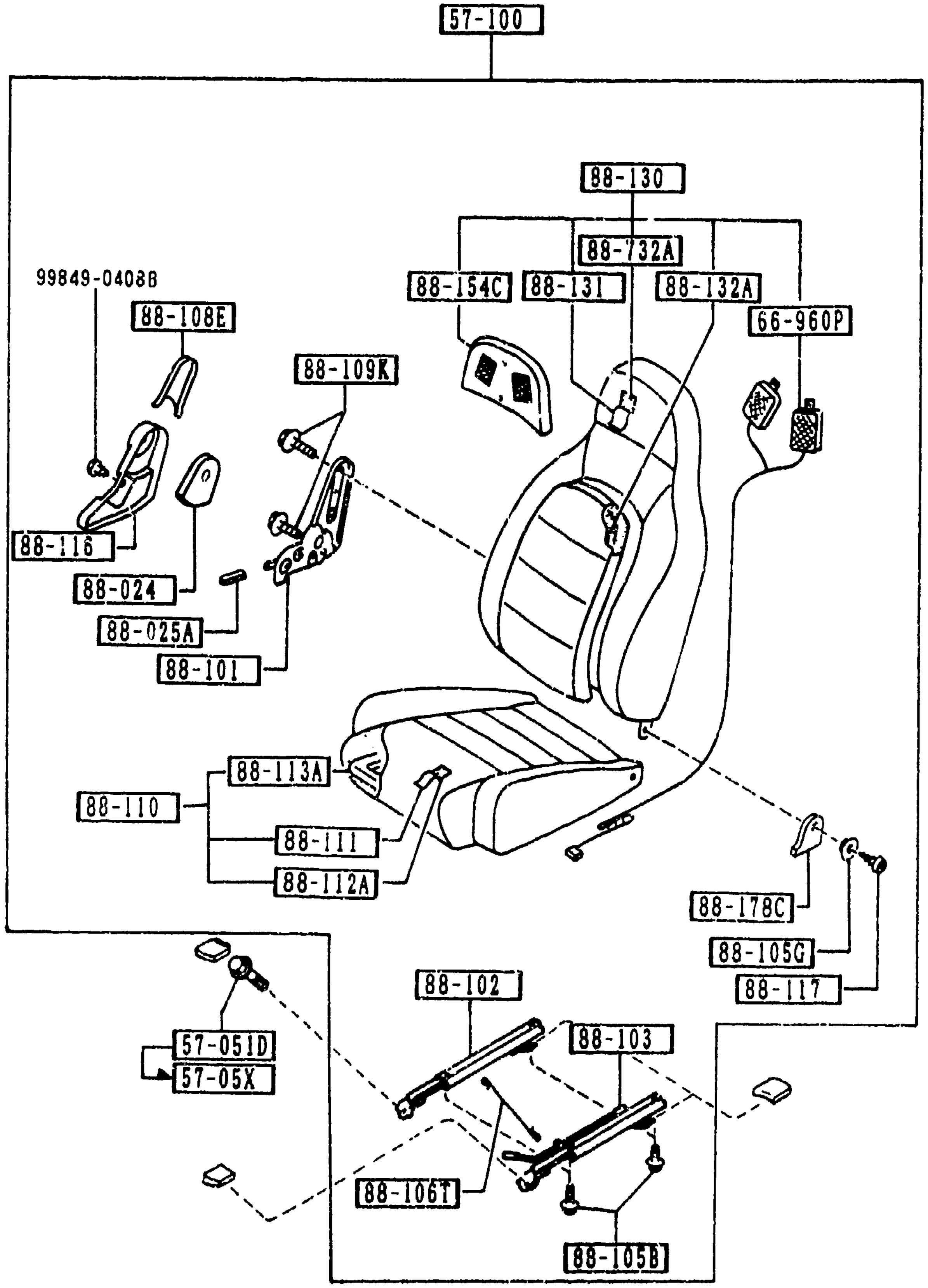
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88-130
88-732A
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88-131
88-132A
66-960P
99849-04088
88-108E
88-109K
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88-024
88-025A
88-101
88-110
88-113A
88-111
88-112A
88-178C
88-105G
88-117
57-051D
57-05X
88-102
88-103
88-106T
88-105B

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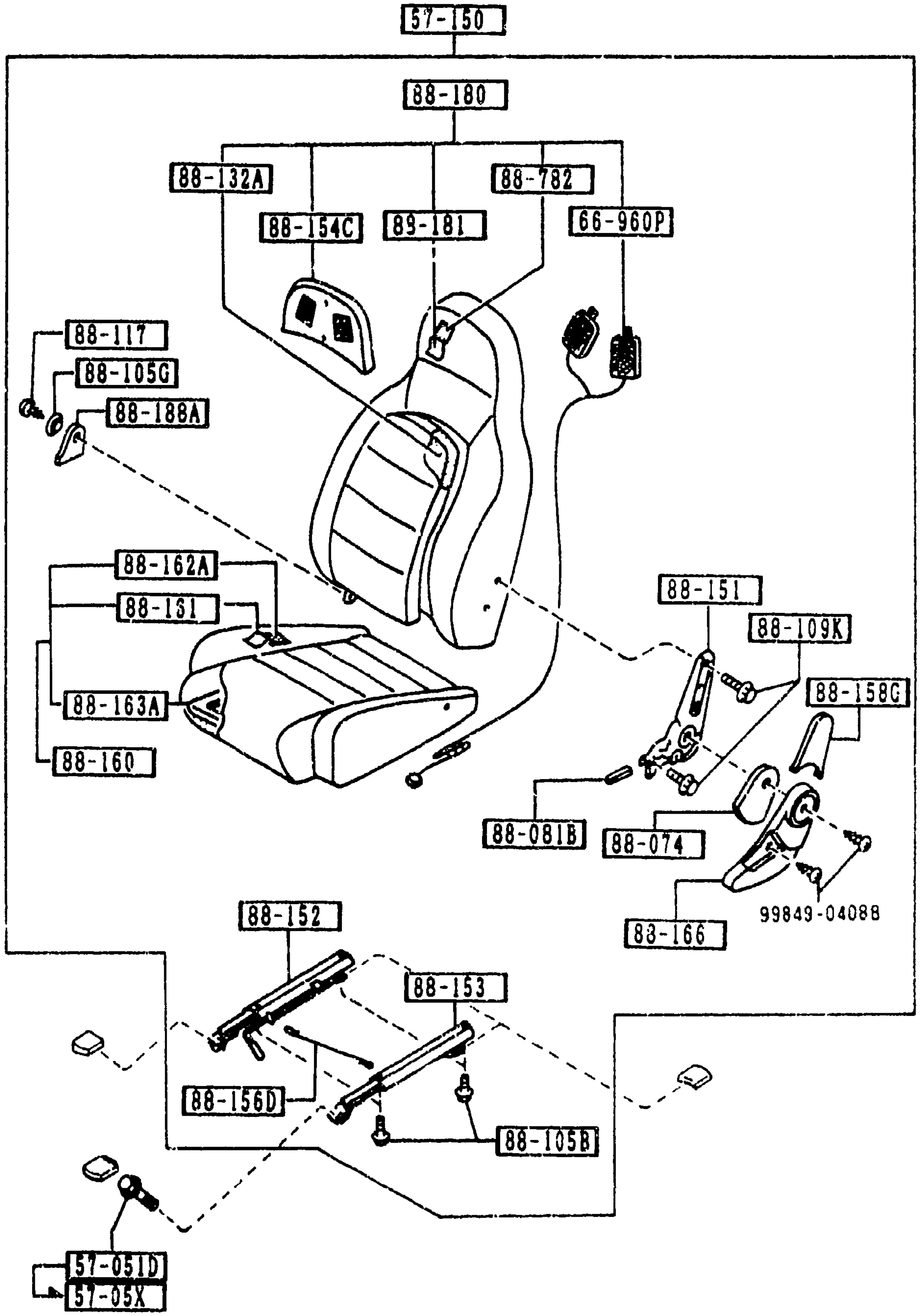
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88-132A
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88-163A
88-160
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88-109K
88-158G
88-081B
88-074
88-166
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57-051D
57-05X

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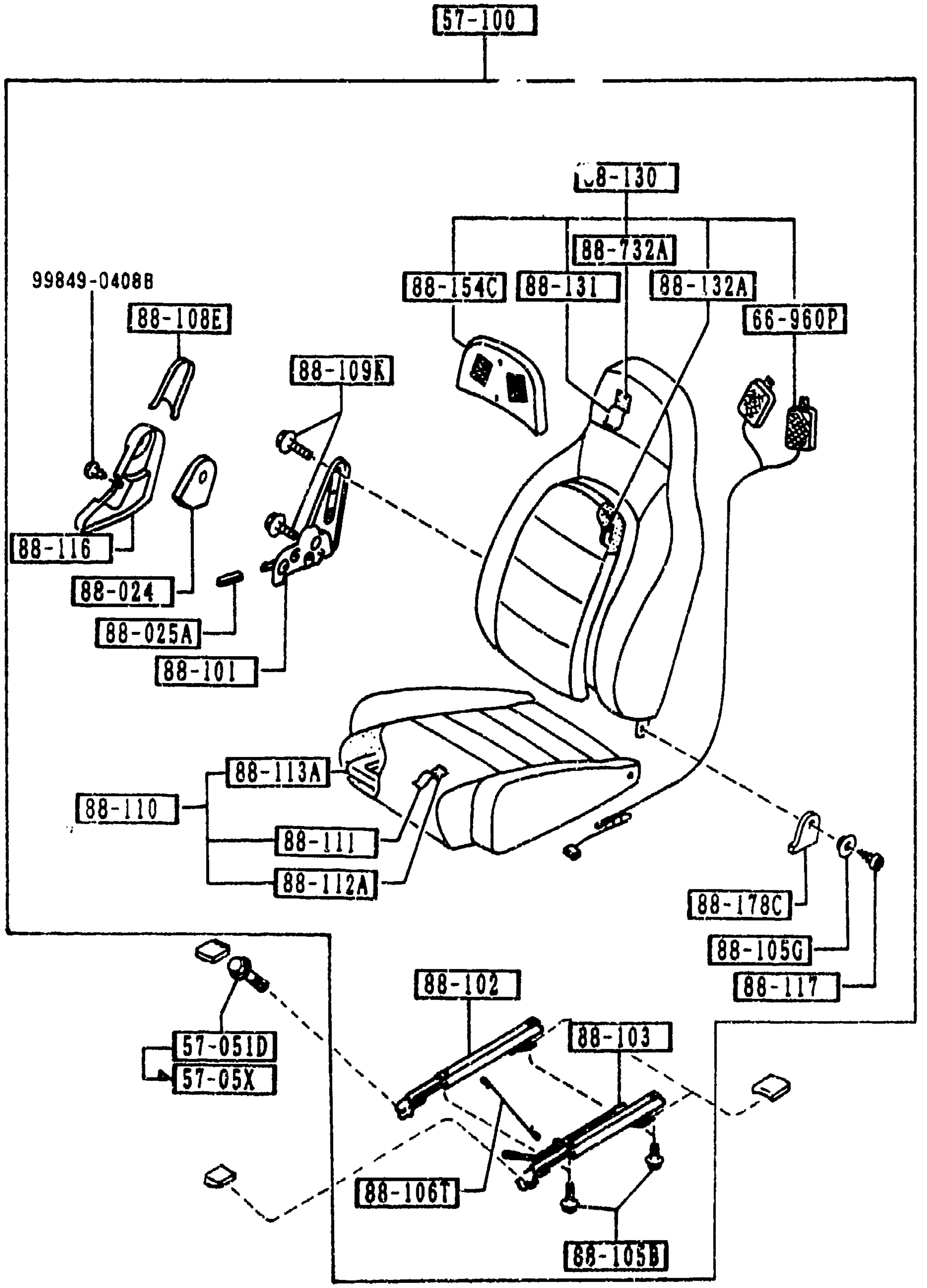
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88-111
88-112A
88-178C
88-105G
88-117
88-102
88-103
57-051D
57-05X
88-106T
88-105B

(CONT'D)

5700 -1 SEATS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
57-05X		BOLT,LINK			
B455-57-05X	8				9401-
57-051D		BOLT,SET			
UB40-57-05X	8				-9401
57-100		SEAT(R),FRONT			
NA01-57-100B A (NA01-57-100D)	1				-9701
00		NA0 BLACK			
NA02-57-100B A (NA02-57-100D)	1				-9701
00		NA0 BLACK			
NA01-57-100D A (NA01-57-100E)	1				9701-0201
00		NA0 BLACK			
NA02-57-100D A (NA02-57-100E)	1				9701-0201
00		NA0 BLACK			
NA01-57-100E A (NA01-57-100F)	1				0201-0601
00		NA0 BLACK			
NA02-57-100E A (NA02-57-100F)	1				0201-0601
00		NA0 BLACK			
NA01-57-100F	1	BASE, (CLOTH,W/O HEAD SPK.)			0601-
00		NA0 BLACK			
NA02-57-100F	1	PKG-OPT, (CLOTH,W/HEAD SPK.)			0601-
00		NA0 BLACK			
57-150		SEAT(L),FRONT			
NA01-57-150B A (NA01-57-150D)	1				-9701
00		NA0 BLACK			
NA02-57-150B A (NA02-57-150D)	1				-9701
00		NA0 BLACK			
NA01-57-150D A (NA01-57-150E)	1				9701-0201

9401 NA35MM-100090
9701 NA35MM-111969
0201 NA35MM-137180
0601 NA35MM-154752

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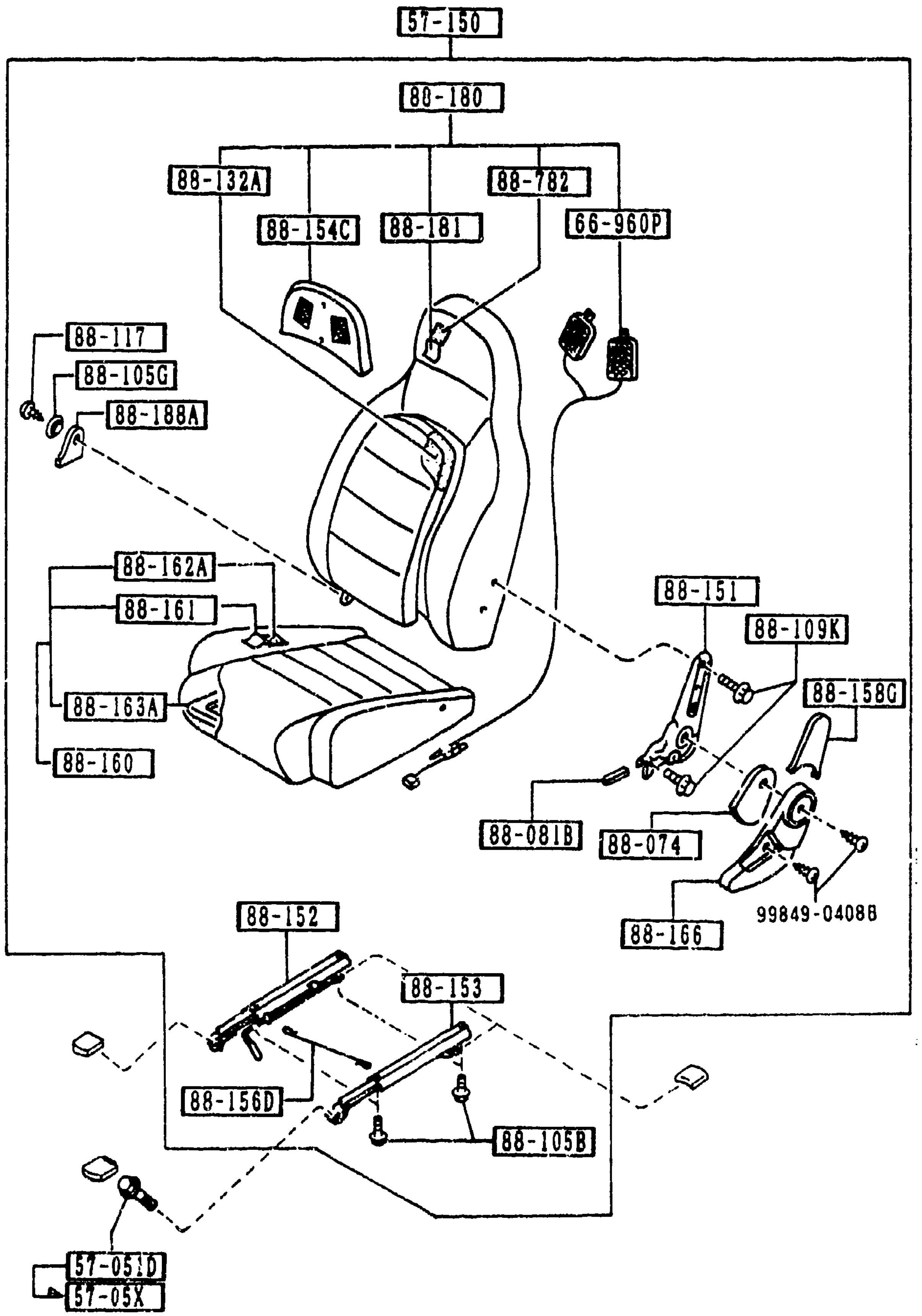
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88-154C
88-181
88-782
66-960P
88-117
88-105G
88-188A
88-162A
88-161
88-163A
88-160
88-151
88-109K
88-158G
88-081B
88-074
88-166
99849-04088
88-152
88-153
88-156D
88-105B
57-051D
57-05X

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
00		NAO BLACK			
NA02-57-150D A (NA02-57-150E)	1				9701-0201
00		NAO BLACK			
NA01-57-150E A (NA01-57-150F)	1				0201-0601
00		NAO BLACK			
NA02-57-150E A (NA02-57-150F)	1				0201-0601
00		NAO BLACK			
NA01-57-150F	1	BASE, (CLOTH,W/O HEAD SPK.)			0601-
00		NAO BLACK			
NA02-57-150F	1	PKG-OPT, (CLOTH,W/HEAD SPK.)			0601-
00		NAO BLACK			
66-960P		SPEAKER,PILLOW-SEAT			
NA04-66-960A	2	PKG-OPT, (W/HEAD SPEAKER)			
88-024		PROTR(R),SEAT BELT			
NA01-88-033	1				
88-025A		KNOB(R),KNUCKLE			
NA01-88-034	1				
00		NAO BLACK			
88-074		PROTR(L),SEAT BELT			
NA01-88-083	1				
88-081B		KNOB(L),KNUCKLE			
NA01-88-084	1				
00		NAO BLACK			
88-101		KNUCKLE(R),RECLINING			
NA01-88-101 A (NA01-88-101A)	1				-0601
NA01-88-101A	1				0601-

9701 NA35**-111969
0201 NA35**-137180
0601 NA35**-154752

5700 SEATS (1/2)

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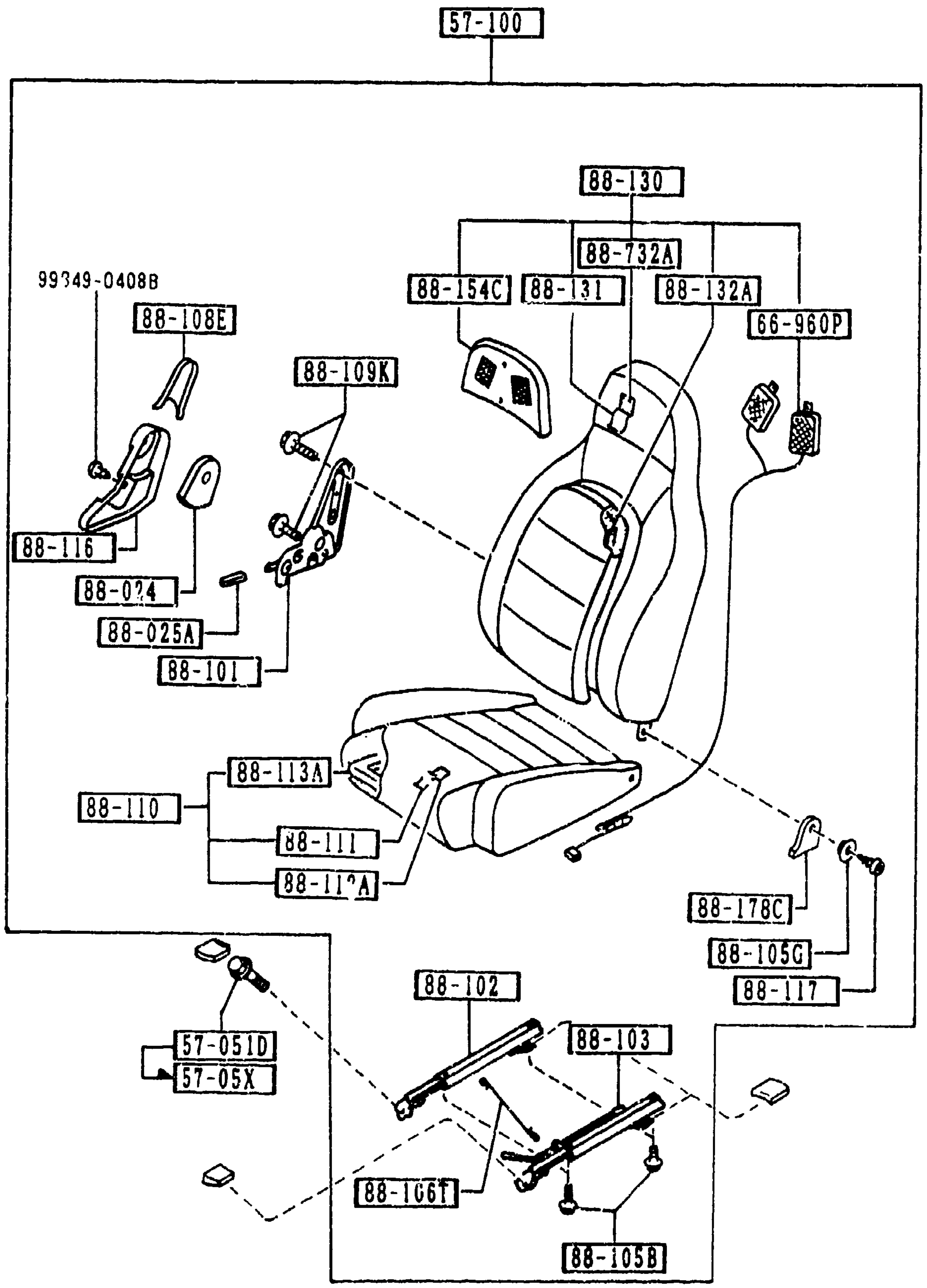
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88-112A
88-178C
88-105G
88-117
88-102
88-103
57-051D
57-05X
88-106T
88-105B

5700 -3 SEATS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
88-102		ADJUSTER,NO.1			
NA01-88-102 A (NA01-88-102A)	1				-0201
NA01-88-102A	1				0201-
88-103		ADJUSTER,NO.2			
NA01-88-103 A (NA01-88-103A)	1				-0201
NA01-88-103A	1				0201-
88-105B		BOLT,LINK			
H260-88-105	8				
88-105G		BUSH,HINGE			
H260-88-108	2				
02		NA0 BLACK			
88-106T		WIRE,CONNECT			
NA01-88-106	1				
88-108E		COVER(R),SEAT BACK			
NA01-88-036	1				
00		NA0 BLACK			
88-109K		SCREW,KNUCKLE			
H260-88-109	8				
88-110		CUSHION(R),FRT SEAT			
NA01-88-110	1	BASE, PKG-OPT, (CLOTH)			
00		NA0 BLACK			
88-111		TRIM(R),SEAT CUSHION			
NA01-88-111	1	BASE, PKG-OPT, (CLOTH)			
00		NA0 BLACK			
88-112A		PAD(R),CUSHION-FRT			
NA01-88-112	1				
88-113A		FRAME(R),CUSHION-FRT			

0201 NA35**-137180

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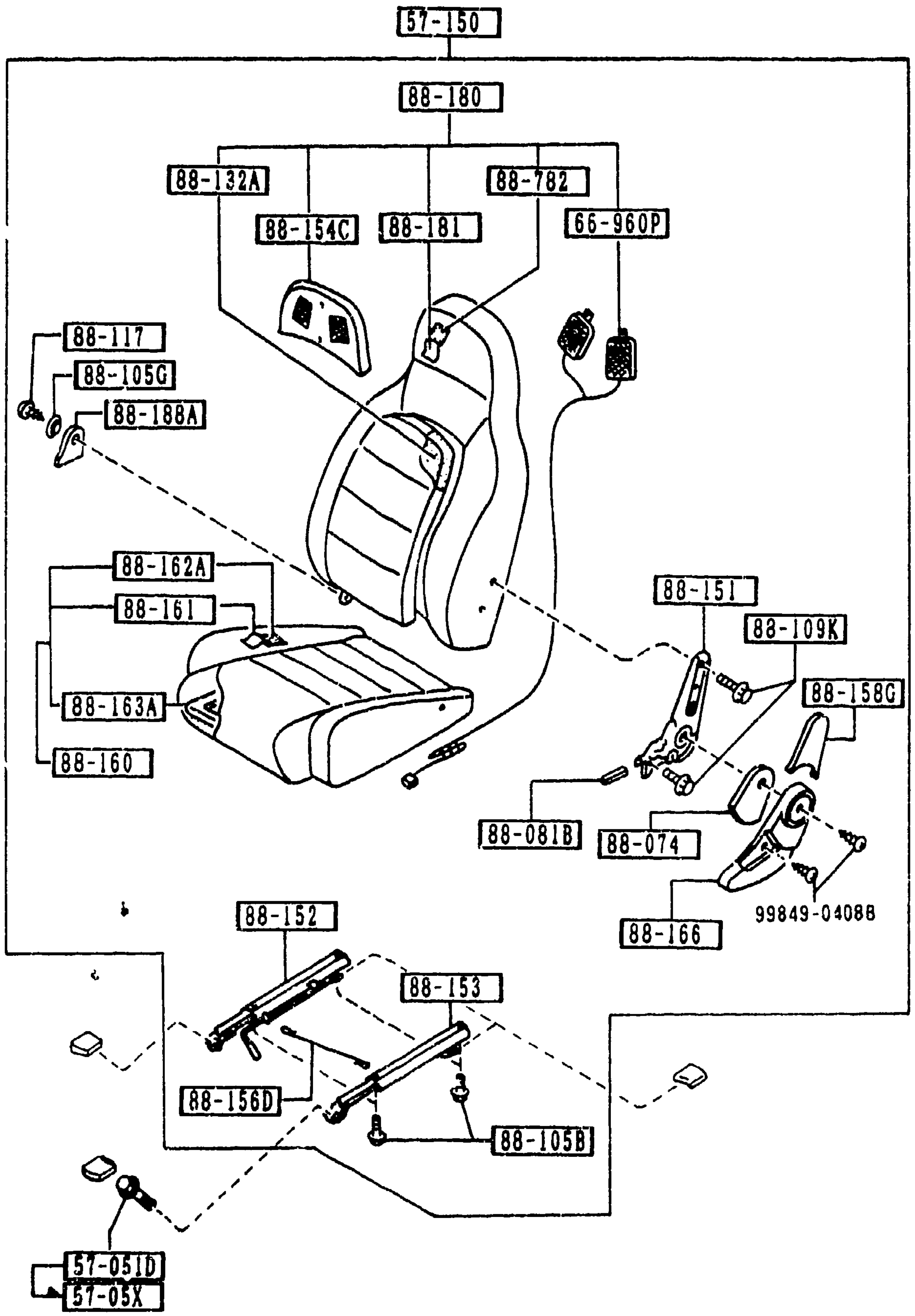
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88-180
88-132A
88-782
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88-161
88-163A
88-160
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88-109K
88-158G
88-081B
88-074
99849-04088
88-166
88-152
88-153
88-156D
88-105B
57-051D
57-05X

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-88-113	1				
88-116		COVER(R),KNUCKLE			
NA01-88-031	1				
00		NA0 BLACK			
88-117		SCREW,KNUCKLE			
H260-88-107	2				
88-130		BACK(R),FRONT SEAT			
NA01-88-130	1	BASE, (CLOTH,W/O HEAD SPK.)			
00		NA0 BLACK			
NA02-88-130	1	PKG-OPT, (CLOTH,W/HEAD SPK.)			
00		NA0 BLACK			
88-131		TRIM(R),SEAT BACK			
NA01-88-131	1	BASE, PKG-OPT, (CLOTH)			
00		NA0 BLACK			
88-132A		PAD(R),BACK-FRT			
NA01-88-132	2				
88-151		KNUCKLE(L),RECLINING			
NA01-88-151 A (NA01-88-151A)	1				-0601
NA01-88-151A	1				0601-
88-152		ADJUSTER NO.3			
NA01-88-152 A (NA01-88-152A)	1				-0201
NA01-88-152A	1				0201-
88-153		ADJUSTER NO.4			
NA01-88-153 A (NA01-88-153A)	1				-0201
NA01-88-153A	1				0201-
88-154C		COVER,HEAD REST			

0201 NA35**-137180
0601 NA35**-154752

5700 SEATS (1/2)

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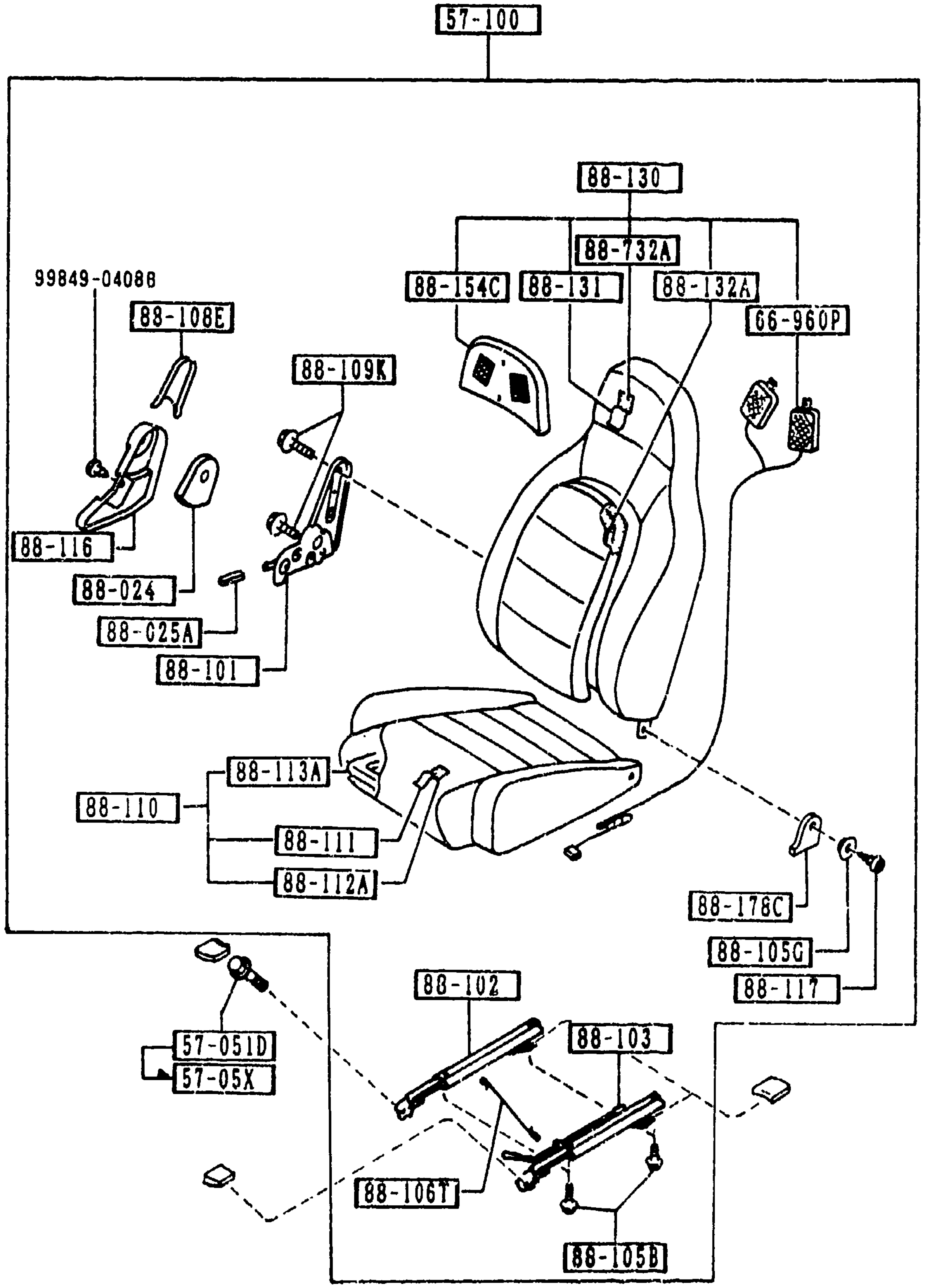
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88-101
88-113A
88-110
88-111
88-112A
88-178C
88-105G
88-117
88-102
88-103
57-051D
57-05X
88-106T
88-105B

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-88-137	2				
88-156D		WIRE,CONNECT			
NA01-88-156	1				
88-158G		COVER(L),SEAT BACK			
NA01-88-086	1				
00		NA0 BLACK			
88-160		CUSHION(L),FRT SEAT			
NA01-88-160	1	BASE, PKG-OPT, (CLOTH)			
00		NA0 BLACK			
88-161		TRIM(L),SEAT CUSHION			
NA01-88-161	1	BASE, PKG-OPT, (CLOTH)			
00		NA0 BLACK			
88-162A		PAD(L),CUSHION-FRT			
NA01-88-162	1	BASE, PKG-OPT, (CLOTH)			
88-163A		FRAME(L),CUSHION-FRT			
NA01-88-163	1				
88-166		COVER(L),KNUCKLE			
NA01-88-081	1				
00		NA0 BLACK			
88-178C		COVER(R),HINGE			
NA01-88-035	1				
00		NA0 BLACK			
88-180		BACK(L),FRONT SEAT			
NA01-88-180	1	BASE, (CLOTH,W/O HEAD SPK.)			
00		NA0 BLACK			
NA02-88-180	1	PKG-OPT, (CLOTH,W/HEAD SPK.)			
00		NA0 BLACK			

5700 SEATS (2/2)

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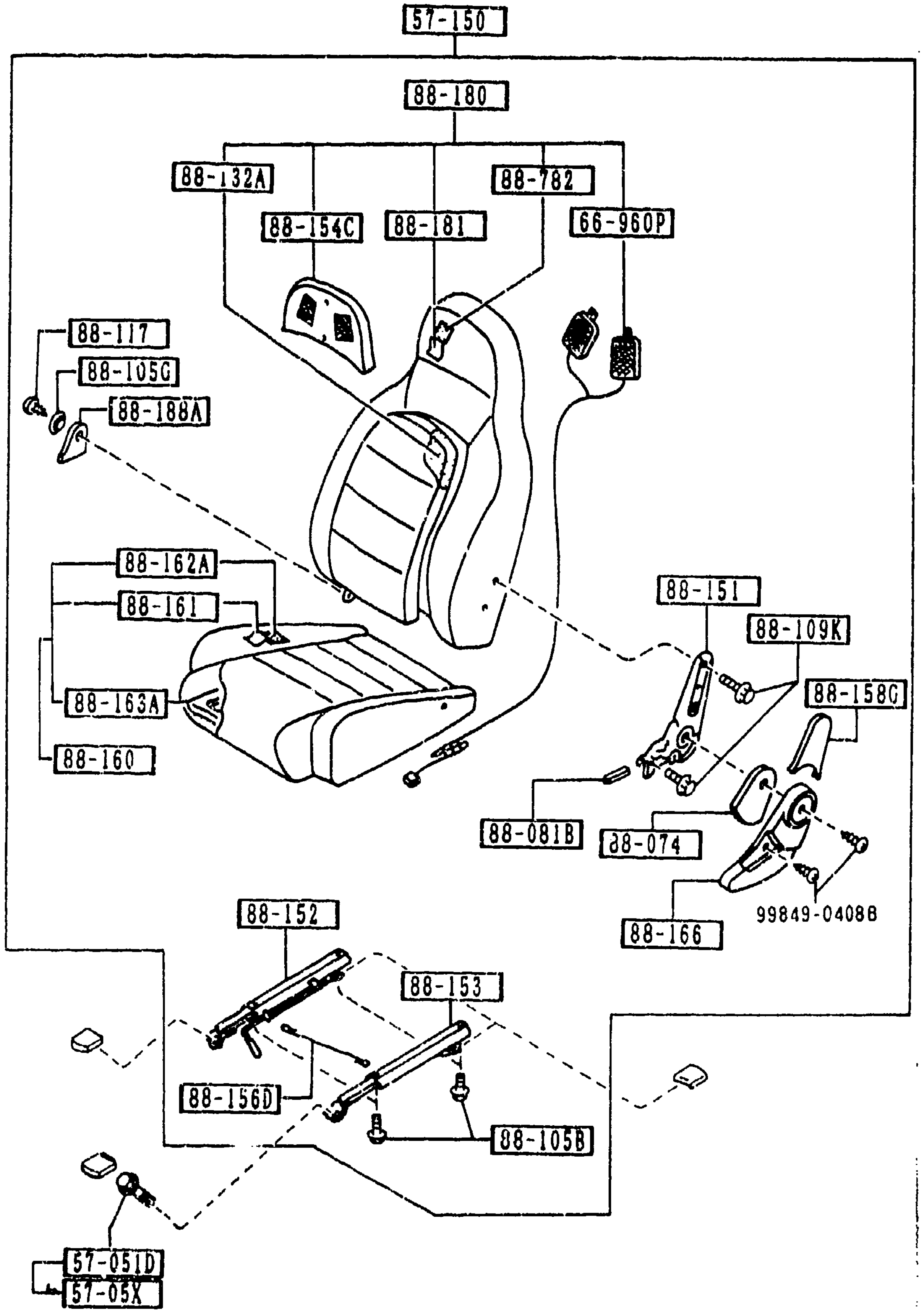
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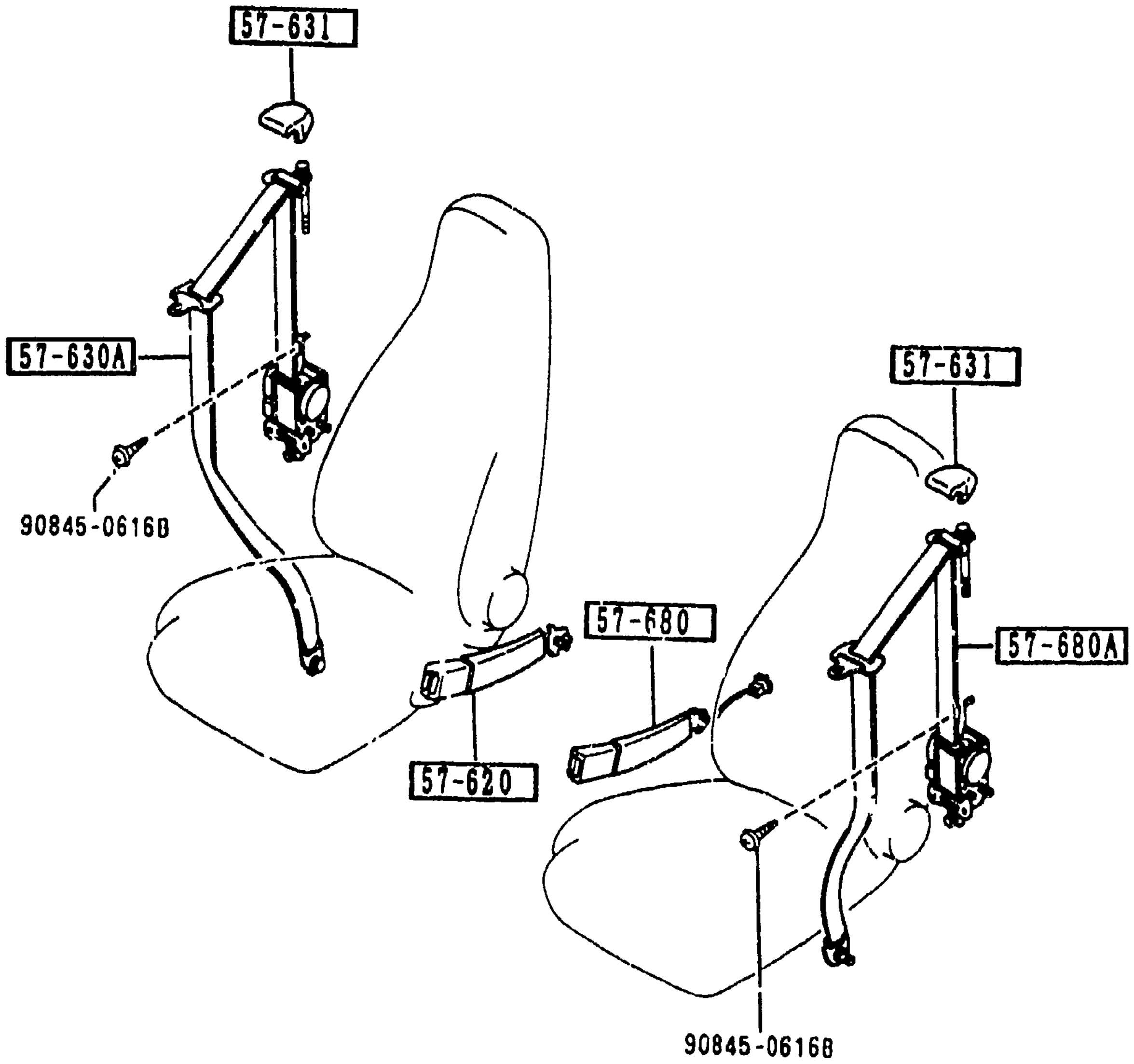
88-158G
88-081B
88-074
88-166
99849-04088
88-152
88-153
88-156D
88-105B
57-051D
57-05X

5700 -6 * SEATS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
88-181		TRIM(L),SEAT BACK			
NA01-88-181	1	BASE, PKG-OPT, (CLOTH)			
00		NA0 BLACK			
88-188A		COVER(L),HINGE			
NA01-88-085	1				
00		NA0 BLACK			
88-732A		PAD'B'(R),BACK-FRT			
NA01-88-732	1				
88-782		PAD'B'(L),BACL-FRT			
NA01-88-782	1				

5790 SEAT BELTS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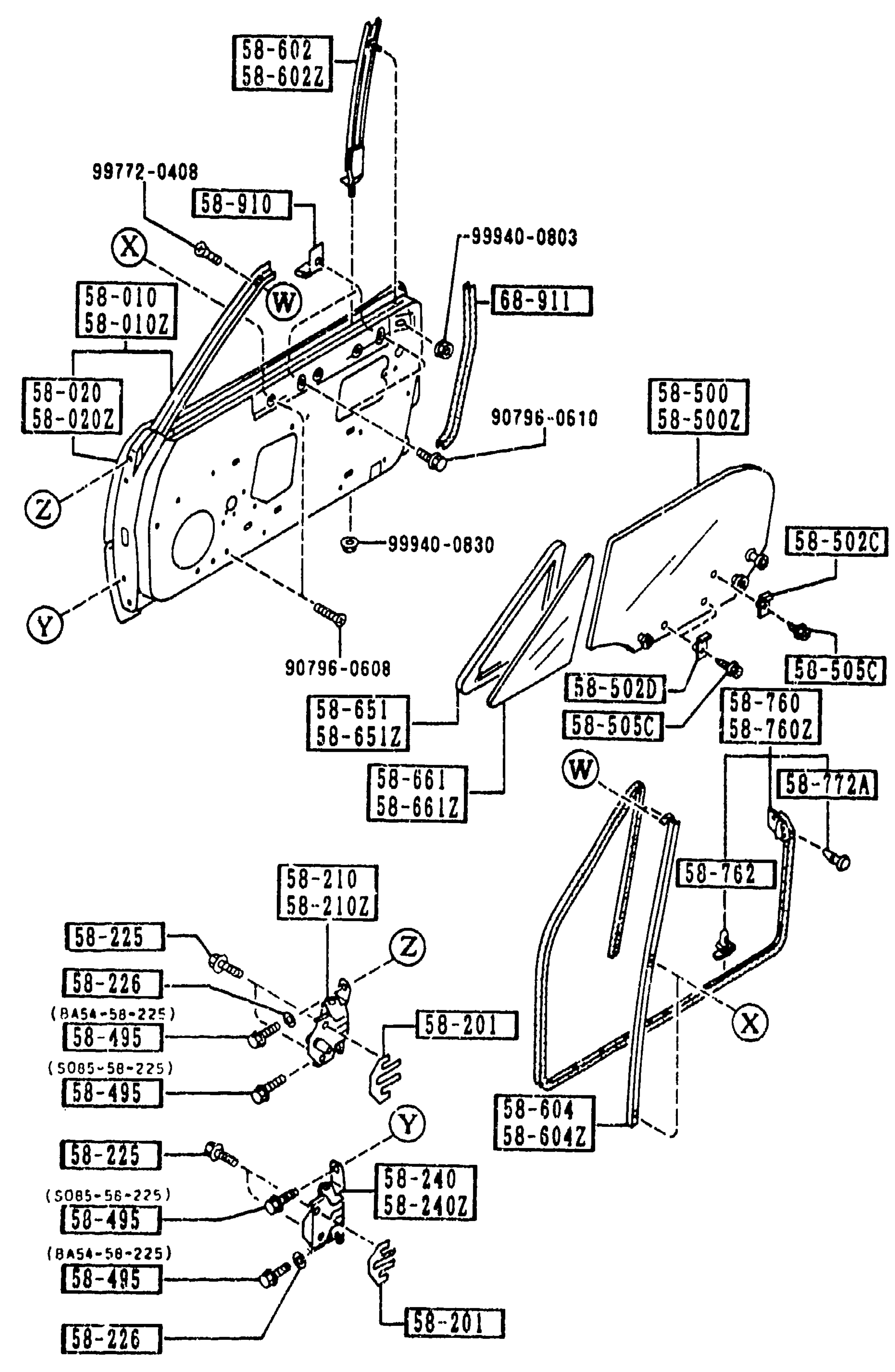
57-630A
90845-0616B
57-631
57-680
57-680A
57-620
90845-0616B

5790 -1 * SEAT BELTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
57-620		BELT'A',FRONT SEAT			
NA01-57-620	1				
00		NA0 BLACK			
57-630A		BELT'B'(R),FRT SEAT			
NA01-57-630C	1				
00		NA0 BLACK			
57-631		COVER,ANCHOR			
NA01-57-631B	2				
00		NA0 BLACK			
57-680		BELT'A',FRONT SEAT			
NA01-57-680	1				
00		NA0 NA1 BLACK			
57-680A		BELT'B'(L),FRT SEAT			
NA01-57-690A	1	(W/AIR BAG)			
00		NA0 BLACK			
NA07-57-690	1	(W/O AIR BAG)			0701-
00		NA0 BLACK			

0701 NA35**-200041

5800 FRONT DOORS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58-201
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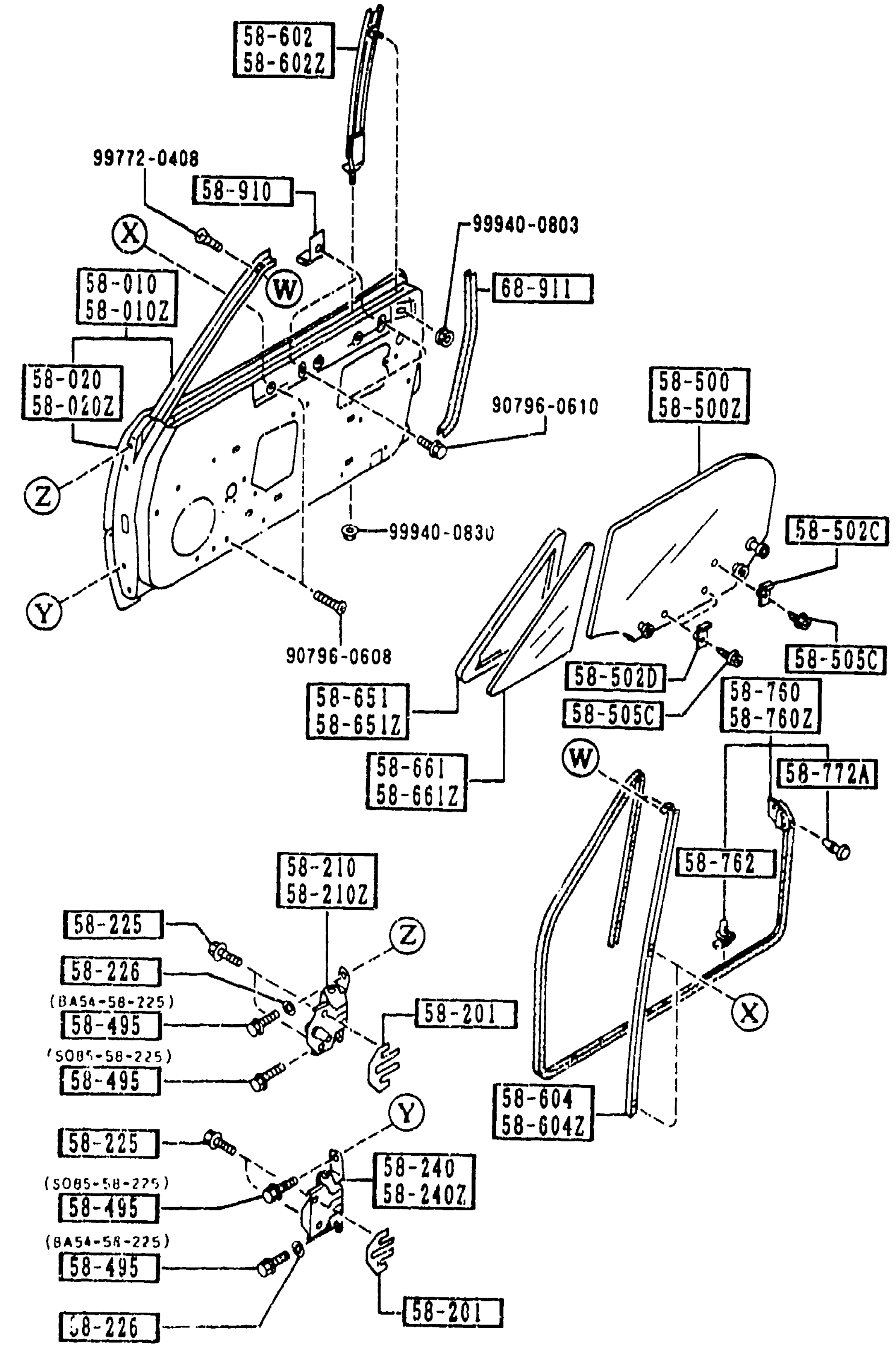
58-604
58-604Z
Y
58-225
58-240
58-240Z
(S085-58-225)
58-495
(BA54-58-225)
58-495
58-226
58-201

5800 -1 FRONT DOORS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
58-010		BODY(R),FRONT DOOR			
NAY1-58-020	1				
58-010Z		BODY(L),FRONT DOOR			
NAY1-59-020	1				
58-020		PANEL(R),OUT.-FRT DOOR			
NA01-58-030 AN(NA01-58-030A)	1				-9413
NA01-58-030A	1				9413-
58-020Z		PANEL(L),OUT.-FRT DOOR			
NA01-59-030 AN(NA01-59-030A)	1				-9413
NA01-59-030A	1				9413-
58-201		SHIM,HINGE-DOOR			
B092-58-201 AN(B092-58-201A)	4				-9901
B092-58-201A	4				9901-
58-210		HINGE(R),DOOR-UPPER			
FB01-58-210	1				
58-210Z		HINGE(L),DOOR-UPPER			
FB01-59-210	1				
58-225		BOLT,SETTING-HINGE LOWER			
B455-58-225	8				
58-226		WASHER,SETTING			
BA56-72-226	4				-9510
GJ21-58-226	4				9510-
58-240		HINGE(R),DOOR-LOWER			
B156-58-240	1				
58-240Z		HINGE(L),DOOR-LOWER			
B156-59-240	1				
58-495		BOLT,SET			

9413 NA35**-100500
9510 NA35**-102968
9901 NA35**-119257

5800 FRONT DOORS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90796-0610
Z
99940-0830
Y
90796-0608
58-500
58-500Z
58-502C
58-505C
58-502D
58-505C
58-651
58-651Z
58-661
58-661Z
58-760
58-760Z
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Z
58-201
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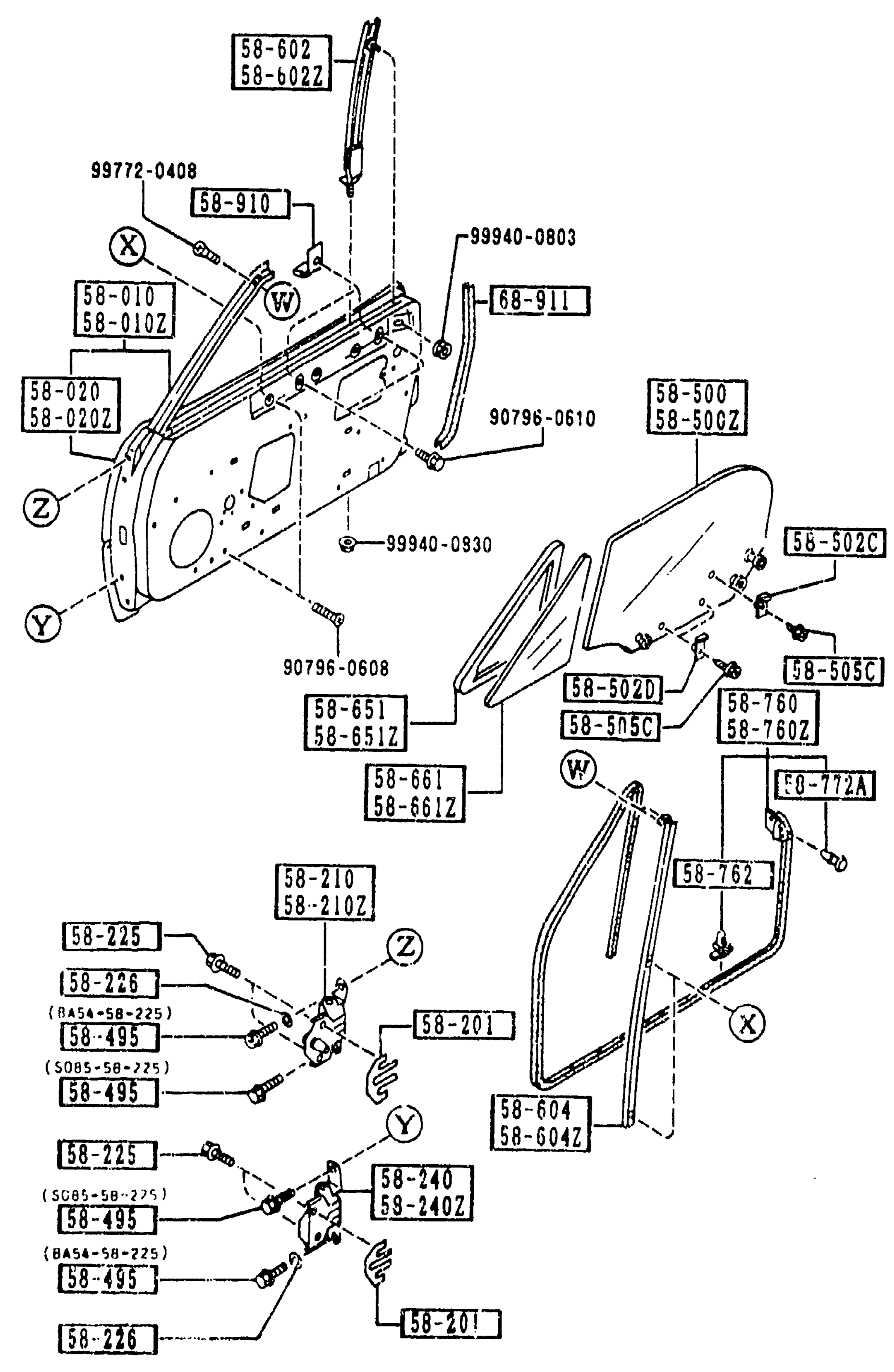
58-604Z
Y
58-225
(S085-58-225)
58-495
58-240
58-240Z
(BA54-58-225)
58-495
58-201
58-226

5800 -2 FRONT DOORS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D BA54-58-225	4				
S085-58-225	4				
58-500		GLASS(R),DOOR-FRT			
NA01-58-510	1				
58-500Z		GLASS(L),DOOR-FRT			
NA01-59-510	1				
58-502C		GROMMET,SCREW			
B235-58-502	2				
58-502D		GROMMET,SCREW-DOOR GLASS			
UB39-58-502A	4				
58-505C		SCREW,WINDOW REGULATOR			
B092-58-505	6				
58-602		GUIDE'B'(R),GLASS			
NA01-58-603A	1				
58-602Z		GUIDE'B'(L),GLASS			
NA01-59-603A	1				
58-604		CHANNEL(R),DIVISION-DOOR			
NA01-58-604B	1				
58-604Z		CHANNEL(L),DIVISION-DOOR			
NA01-59-604B	1				
58-651		WEATHERSTRIP(R)			
NA01-58-651A	1				
58-651Z		WEATHERSTRIP(L)			
NA01-59-651A	1				
58-661		GLASS(R),VENTILATOR			
NA01-58-661	1				
58-661Z		GLASS(L),VENTILATOR			
NA01-59-661	1				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58-500
58-500Z
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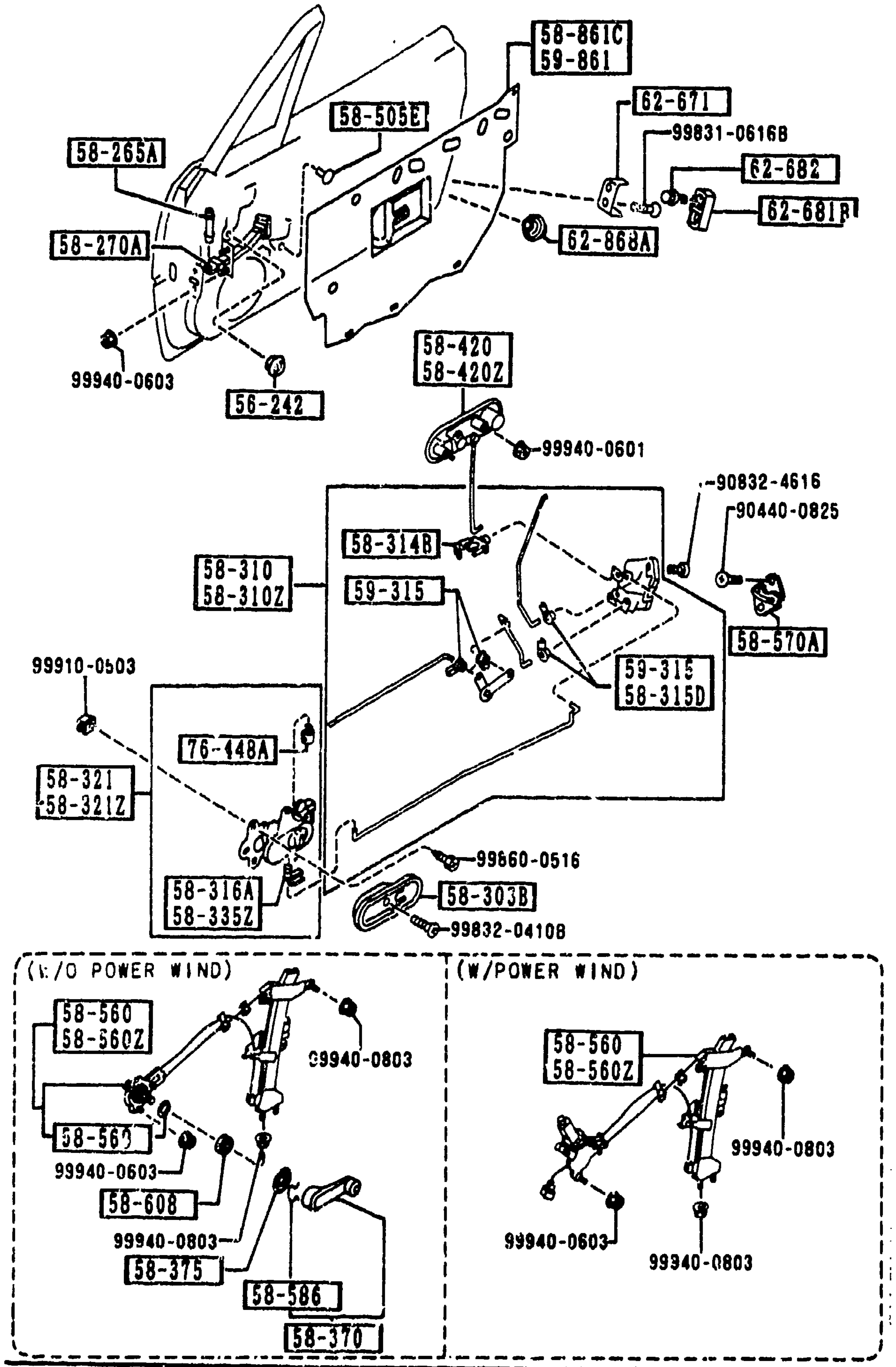
Y
58-225
58-240
58-240Z
(S085-58-225)
58-495
(BA54-58-225)
58-495
58-201
58-226

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
58-760		WEATHERSTRIP(R),DOOR			
NA01-58-760C A (NA01-58-760D)	1				-9403
NA01-58-760D	1				9403-
58-760Z		WEATHERSTRIP(L),DOOR			
NA01-59-760C A (NA01-59-760D)	1				-9403
NA01-59-760D	1				9403-
58-762		FASTENER			
G031-58-762	42				
58-772A		FASTENER			
1011-58-772	4				
58-910		STOPPER,GLASS			
H272-58-911	4				
68-911		WELT,SEAMING			
NA01-68-911	2				
00		NAO BLACK			

9403 NA35MM-100090

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET,PIPING			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)			
2-M05	5103	HEAD LAMP RETRACTORS	2-N12	6150	COOLING UNIT (AIR CONDITIONER)			
2-D06	5105	FRONT COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
2-F06	5110	REAR COMBINATION LAMPS	2-D13	6330	SUNROOF			
2-I06	5120	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-J06	5180	REAR FINISHER	2-D14	6610	DASHBOARD SWITCHES			
2-L06	5230	BONNET	2-E14	6611	COMBINATION SWITCH			
2-N06	5260	TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)			
2-D07	5310	BODY PANELS (FRONT)	2-G14	6635	DOOR SWITCH & HORNS			
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL)	2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)			
2-I07	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)			
2-C08	5370	BODY PANELS (FLOOR)	2-L14	6700	WIRING HARNESSES(FRONT & REAR)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)	2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)			
2-G08	5390	FLOOR ATTACHMENTS	2-D15	6702	WIRING HARNESSES(DASHBOARD)			
2-C09	5500	DASHBOARD EQUIPMENTS	2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)			
2-E09	5520	METER HOOD	2-F15	6704	WIRING HARNESS CLAMPS			
2-F09	5530	SPEEDOMETER CABLE	2-I15	6720	WINDSHIELD WASHER			
2-G09	5540	METER COMPONENTS	2-K15	6730	WINDSHIELD WIPERS			
2-I09	5560	DASHBOARD & RELATED PARTS	2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)			
2-L09	5570	CONSOLE	2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS			
2-C10	5580	VENTILATOR	2-C16	6840	TRIMS & SCUFF PLATES			
2-D10	5700	SEATS	2-E16	6860	FLOOR MATS & PADS			
2-K10	5790	SEAT BELTS	2-G16	6870	SERVICE TOOLS			
2-L10	5800	FRONT DOORS	2-[illegible]16	6900	VISORS,ASSIST HANDLES & MIRRORS			
2-C11	5830	FRONT DOOR MECHANISMS	2-[illegible]	6930	CAUTION PLATES & LABELS			
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS	2-L16	7250	QUARTER WINDOW & TRIMS			
2-C12	6100	HEATER						
2-D12	6110	HEATER UNIT COMPONENTS						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(W/POWER WIND)
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58-560Z
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58-608
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58-375
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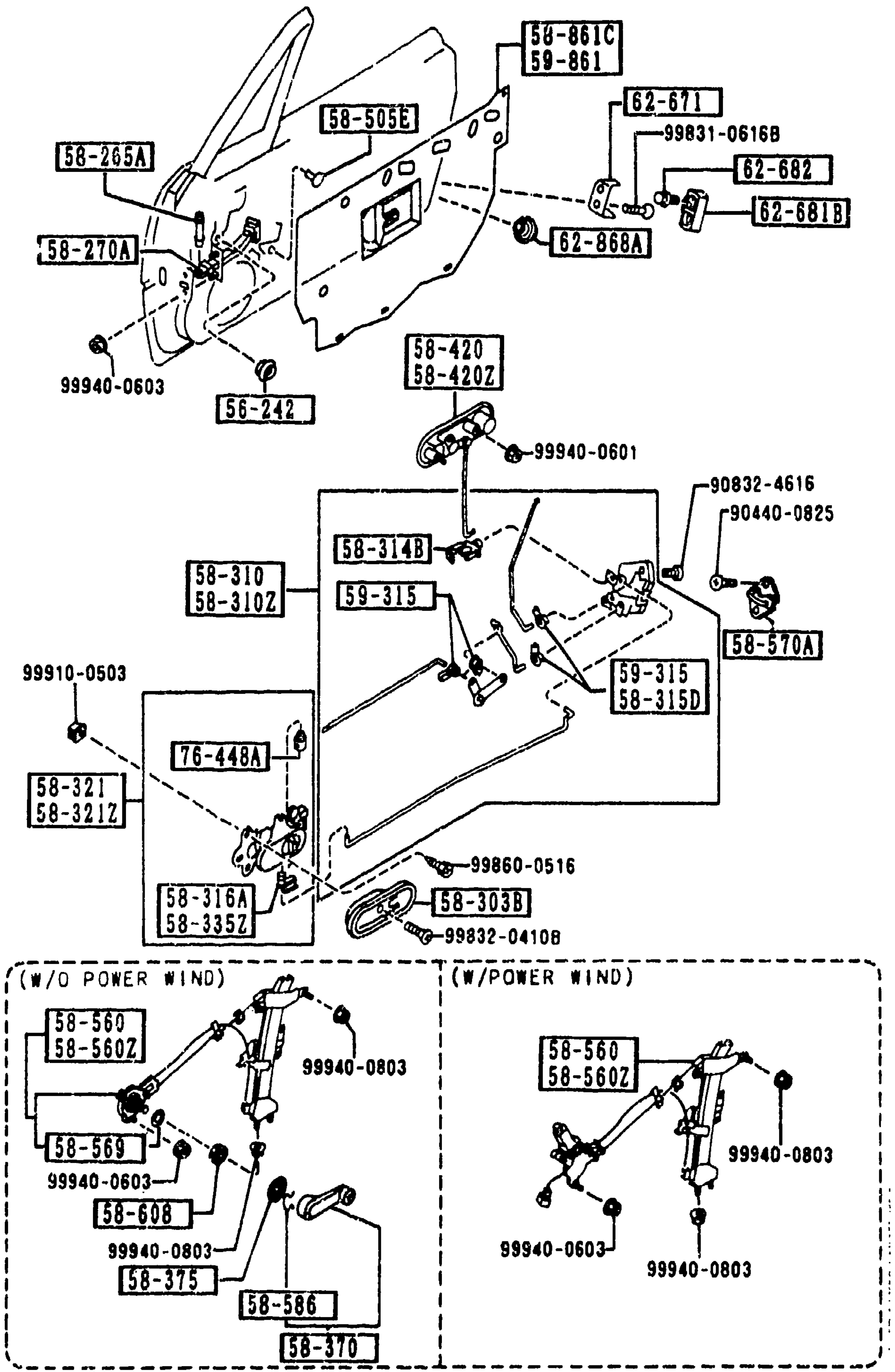
58-370
58-560
58-560Z
99940-0803
99940-0603
99940-0803

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-242		PLUG,DRAIN			
0118-56-242B	2				
58-265A		PIN,CHECKER			
H260-58-265C	2				
58-270A		CHECKER,DOOR			
NA01-58-270A	2				
58-303B		COVER,INNER HANDLE			
NA01-58-303	2				
00		NA0 NA1 BLACK			
58-310		LOCK(R),DOOR			
NA01-58-310B	1				
58-310Z		LOCK(L),DOOR			
NA01-59-310B	1				
58-314B		JOINT			
H043-72-411	2				
58-315D		CLIP (R)			
G030-58-315	4				
58-316A		CLIP			
B001-59-335	1				
58-321		HANDLE(R),INNER			
NA01-58-330A	1				
00		NA0 NA1 BLACK			
58-321Z		HANDLE(L),INNER			
NA01-59-330A	1				
00		NA0 NA1 BLACK			
58-335Z		CLIP(L),INNER HANDLE			
FB01-58-335	1				
58-370		HANDLE,REGULATOR			

5830 FRONT DOOR MECHANISMS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90832-4616
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(W/POWER WIND)
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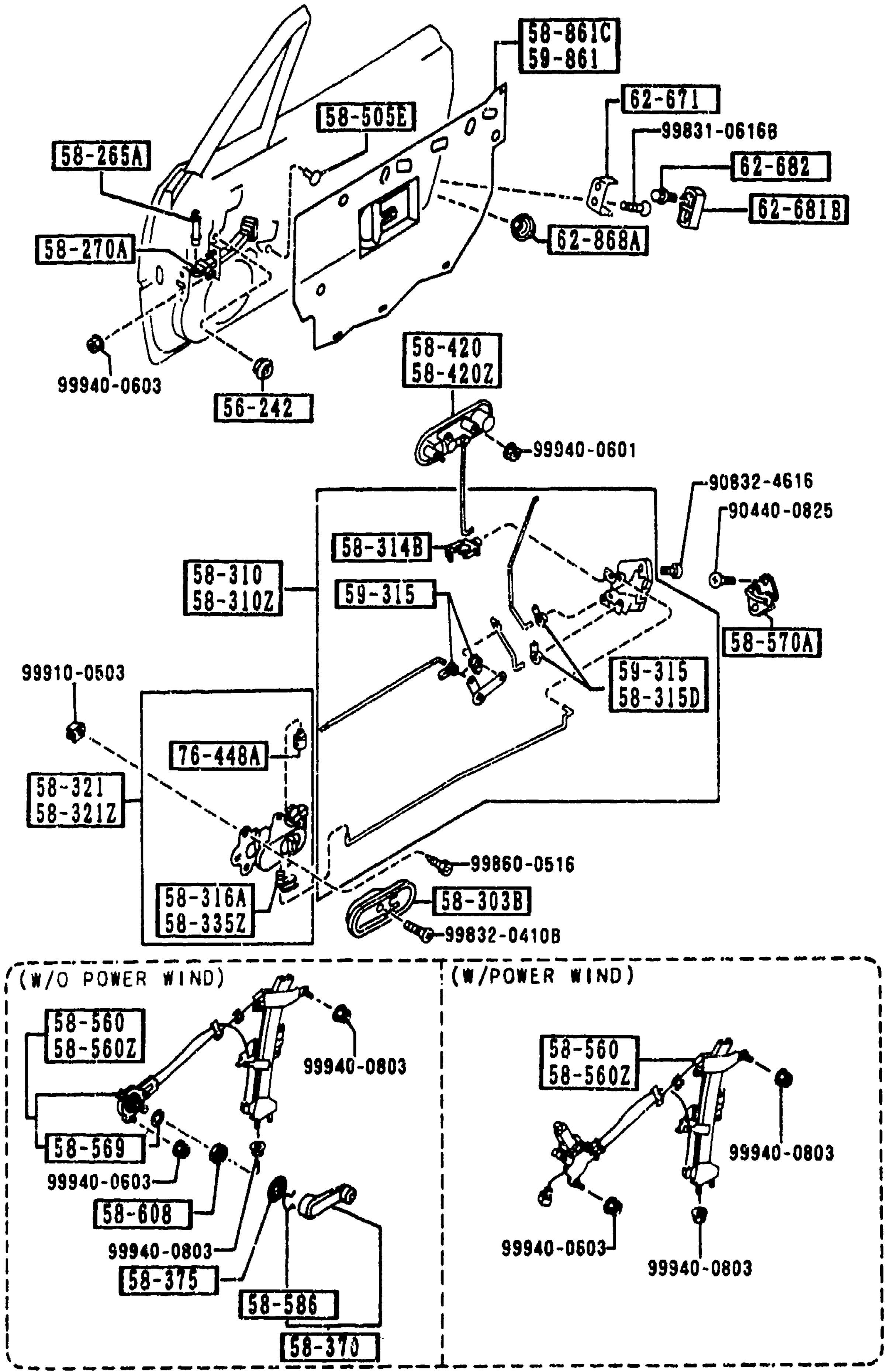
58-375
58-586
58-370
58-560
58-560Z
99940-0803
99940-0603
99940-0803

5830 -2 FRONT DOOR MECHANISMS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B092-58-580	2	BASE, (W/O POWER WIND)			
00		NA0 NA1 BLACK			
58-375		ESCUSTCHEON			
B001-58-582A	2	BASE, (W/O POWER WIND)			
00		NA0 NA1 BLACK			
58-420		HANDLE(R),OUT.			
NA01-58-410A AN(NA01-58-410B)	1				-9413
NA01-58-410B A (NA01-58-410C)	1				9413-9627
NA01-58-410C	1				9627-
58-420Z		HANDLE(L),OUT.			
NA01-59-410A AN(NA01-59-410B)	1				-9413
NA01-59-410B A (NA01-59-410C)	1				9413-9627
NA01-59-410C	1				9627-
58-505E		CAP			
B092-58-355	2	BASE, (W/O POWER WIND)			
58-560		REGULATOR(R),WINDOW			
NA01-58-560B	1	BASE, (W/O POWER WIND)			
NA02-58-560B	1	PKG-OPT, V-SPECIAL, (W/POWER WIND)			
58-560Z		REGULATOR(L),WINDOW			
NA01-59-560B	1	BASE, (W/O POWER WIND)			
NA02-59-560B	1	PKG-OPT, V-SPECIAL, (W/POWER WIND)			
58-569		GASKET,WINDOW REGULATOR			
B092-58-569	2	BASE, (W/O POWER WIND)			
58-570A		STRIKER			

9413 NA35**-100500
9627 NA35**-111215

5830 FRONT DOOR MECHANISMS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56-242
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58-314B
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58-310Z
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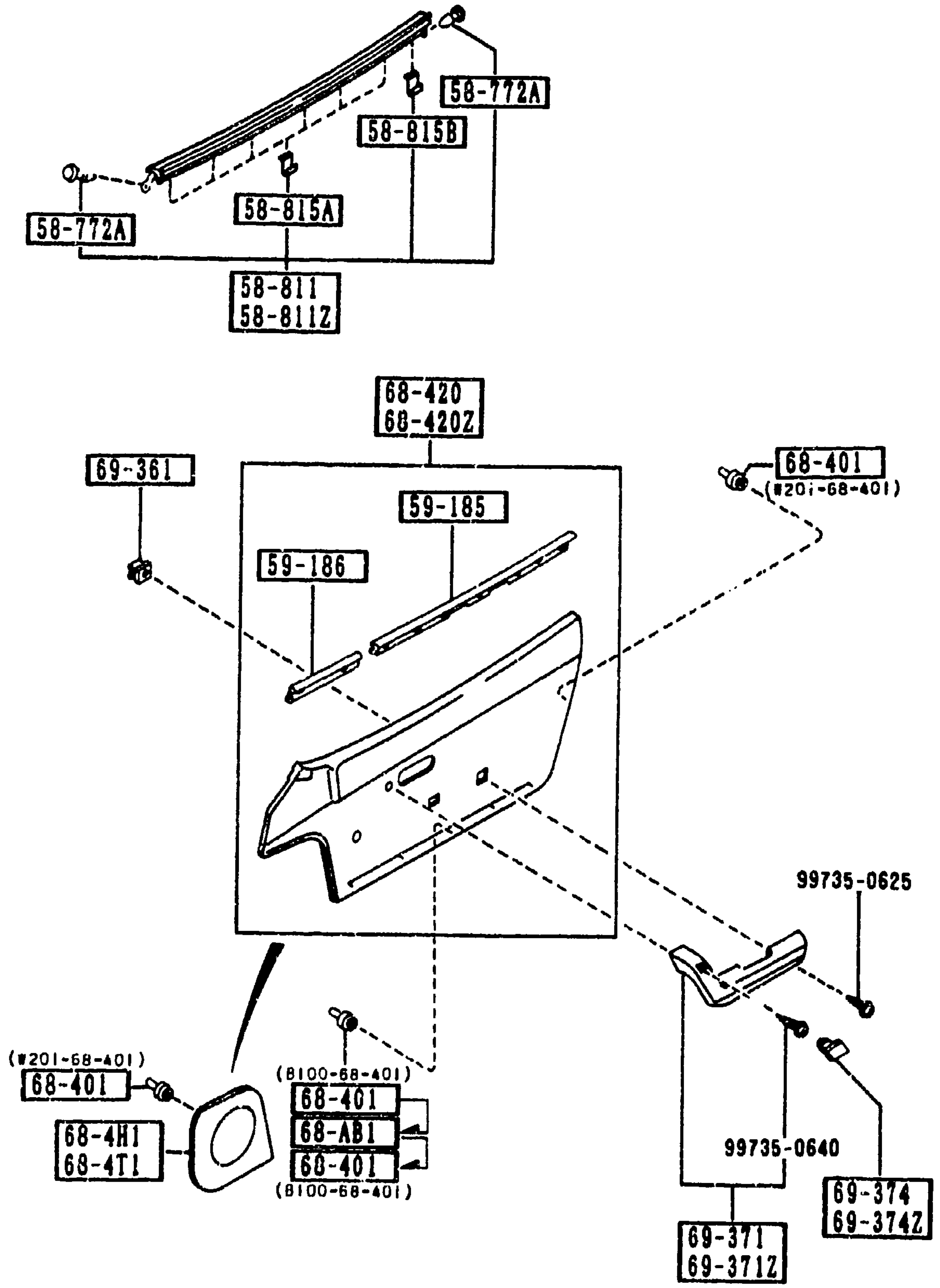
58-315D
99910-0503
76-448A
58-321
58-321Z
99860-0516
58-316A
58-335Z
58-303B
99832-04108
(W/O POWER WIND)
58-560
58-560Z
99940-0803
58-569
99940-0603
58-608
99940-0803
58-375
58-586
58-370
(W/POWER WIND)
58-560
58-560Z
99940-0803
99940-0603
99940-0803

5830 -3 * FRONT DOOR MECHANISMS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B001-58-361A	2				
58-586		RING,SNAP			
B001-58-585	2	BASE, (W/O POWER WIND)			
58-608		PAD			
B092-58-863A	2	BASE, (W/O POWER WIND)			
58-861C		SCREEN(R),FRONT DOOR			
NA01-58-861A	1	BASE, (W/O POWER WIND)			
NA02-58-861A	1	PKG-OPT, V-SPECIAL, (W/POWER WIND)			
59-315		CLIP			
G030-59-315	4				
59-861		SCREEN(L),FRONT DOOR			
NA01-59-861A	1	BASE, (W/O POWER WIND)			
NA02-59-861A	1	PKG-OPT, V-SPECIAL, (W/POWER WIND)			
62-671		DOVETAIL,LIFT GATE			
S084-62-671	2				
62-681B		WEDGE,DOOR-FRONT			
NA01-62-681	2				
62-682		SCREW,WEDGE-LIFT GAT E			
B216-62-682	4				
62-868A		COVER,HOLE-LIFT GATE			
B499-62-868	2				
76-448A		CLIP			
G030-76-448	2				

5840 FRONT DOOR TRIMS & RELATED PARTS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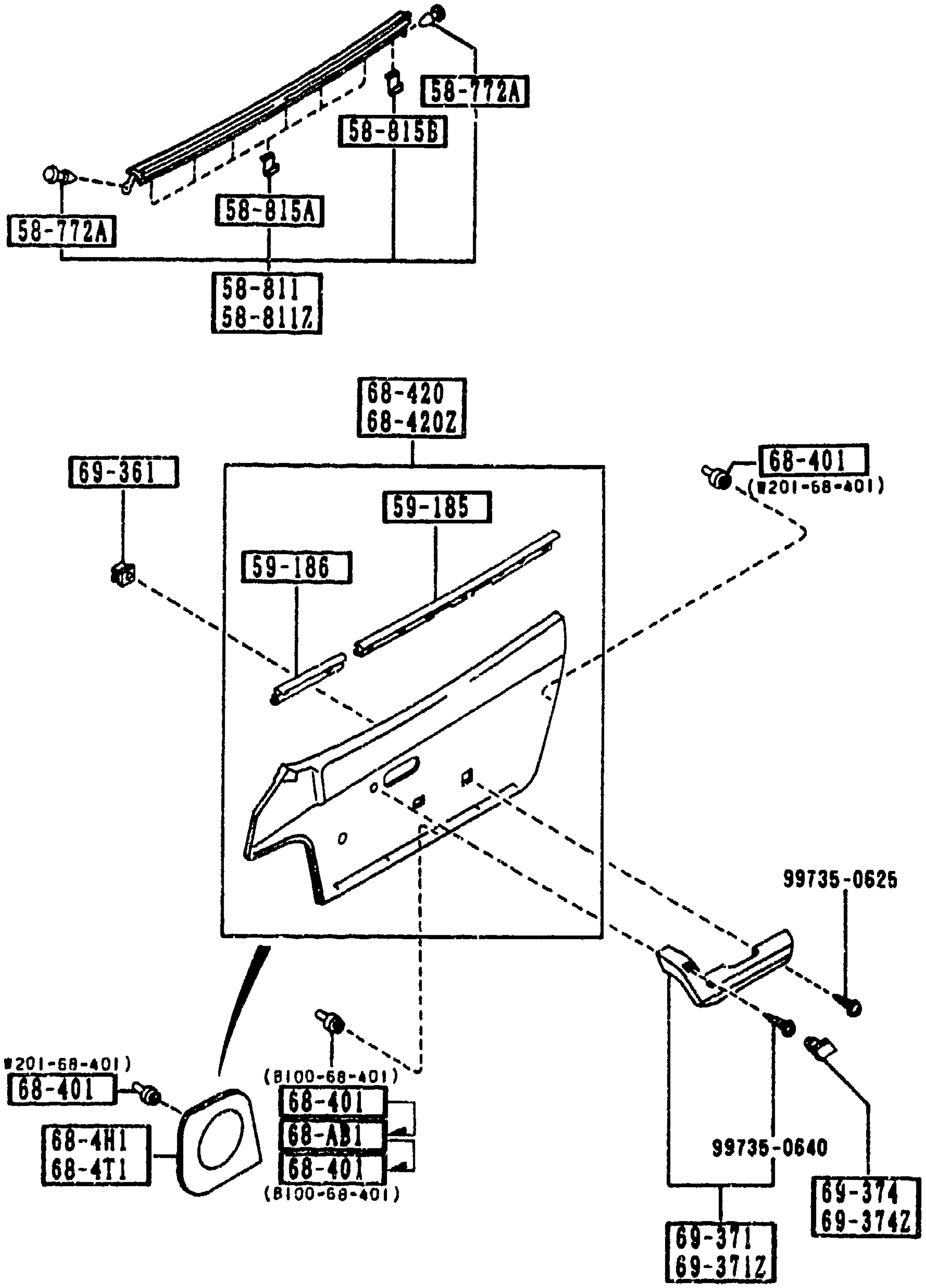
69-374
69-374Z
69-371
69-371Z

5840 -1 FRONT DOOR TRIMS & RELATED PARTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
58-772A		FASTENER			
1011-58-772	4				
58-811		WEATHERSTRIP(R),OUT.			
NA01-58-810B AN(NA01-58-810C)	1				-9607
NA01-58-810C AN(NA01-58-810D)	1				9607-0306
NA01-58-810D	1				0306-
58-811Z		WEATHERSTRIP(L),OUT.			
NA01-59-810B AN(NA01-59-810C)	1				-9607
NA01-59-810C AN(NA01-59-810D)	1				9607-0306
NA01-59-810D	1				0306-
58-815A		CLIP,WEATHERSTRIP-OUTER			
D156-58-815	12				-9607
NA01-58-815	12				9607-
58-815B		CLIP'A',WEATHERSTRIP-OUT			
B157-58-815	2				
59-185		WEATHERSTRIP NO.1			
NA01-58-821	2				
59-186		WEATHERSTRIP NO.2			
NA02-58-821	2				
68-AB1		FASTENER			
G351-68-ABX	10				9C01-0601
68-4H1		GRILLE(R),SPEAKER			
NA01-68-4H0	1				
00		NA0 NA1 BLACK			
68-4T1		GRILLE(L),SPEAKER			
NA01-68-4W0	1				
00		NA0 NA1 BLACK			

9607 NA35**-107883
9C01 NA35**-130310
0306 NA33**-142598
0601 NA35**-154752

5840 FRONT DOOR TRIMS & RELATED PARTS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69-374Z
69-371
69-371Z

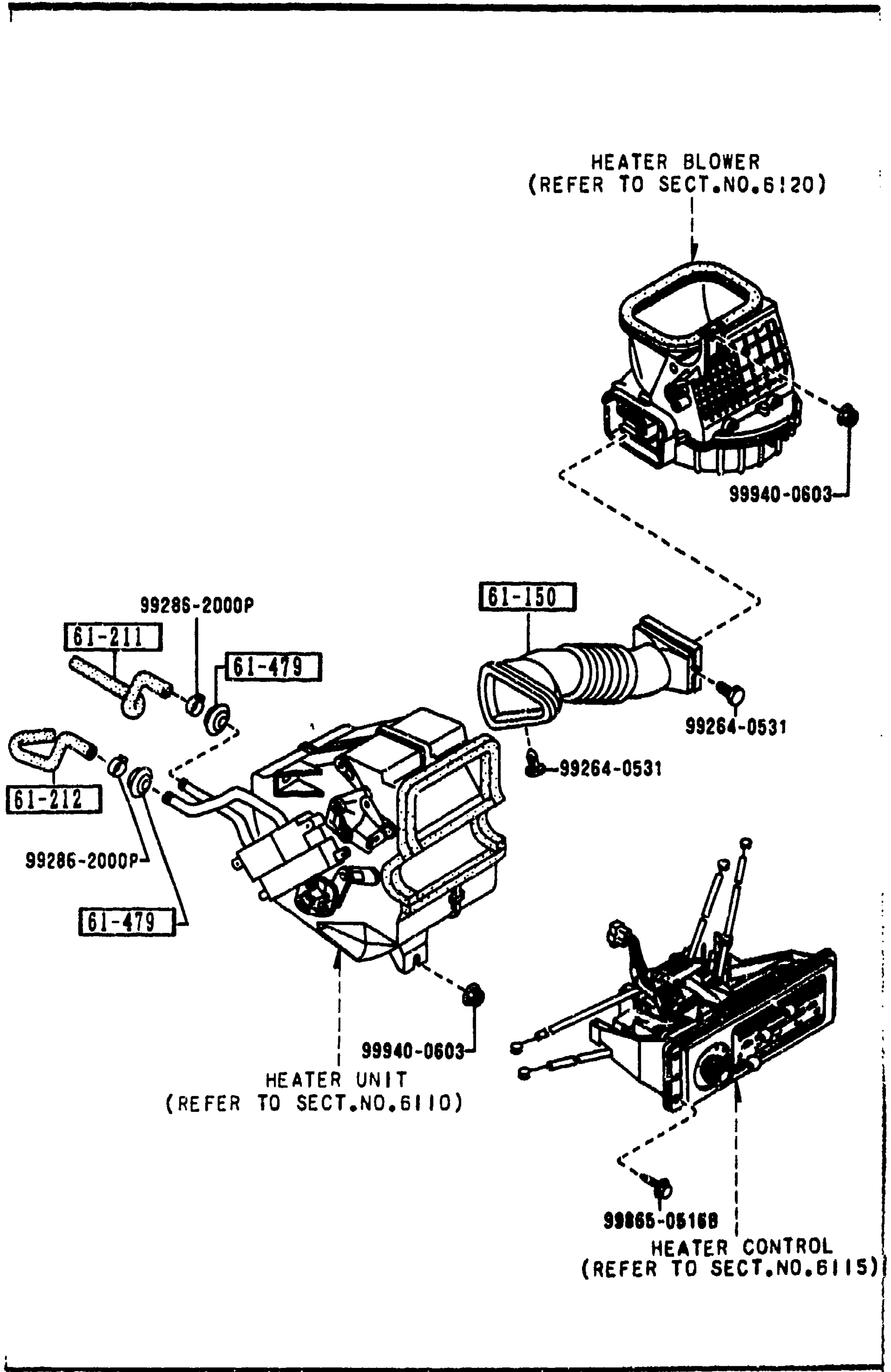
5840 -2 * FRONT DOOR TRIMS & RELATED PARTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-401		FASTENER,DOOR TRIM			
W201-68-401	12				
B100-68-401	10				-9C01
B1G0-68-401	10				0601-
68-420		TRIM(R),DOOR			
NA01-68-420B	1	BASE, (W/O POWER WIND)			
00		NA0 BLACK			
NA02-68-420B	1	PKG-OPT, V-SPECIAL, (W/POWER WIND)			
00		NA0 BLACK			
68-420Z		TRIM(L),DOOR			
NA01-68-450B	1	BASE, (W/O POWER WIND)			
00		NA0 BLACK			
NA02-68-450B	1	PKG-OPT, V-SPECIAL, (W/POWER WIND)			
00		NA0 BLACK			
69-361		GROMMET,SCREW			
B316-69-361	6				
69-371		REST(R),ARM			
BF70-69-370C	1				
00		NA0 NA1 BLACK			
69-371Z		REST(L),ARM			
BF70-69-390C	1				
00		NA0 NA1 BLACK			
69-374		CAP(R),PULL HANDLE			
BF70-69-372	1				
00		NA0 NA1 BLACK			
69-374Z		CAP(L),PULL HANDLE			
BF70-69-392	1				
00		NA0 NA1 BLACK			

9C01 NA35**-130310
0601 NA35**-154752

SECTION NAME INDEX (BODY)

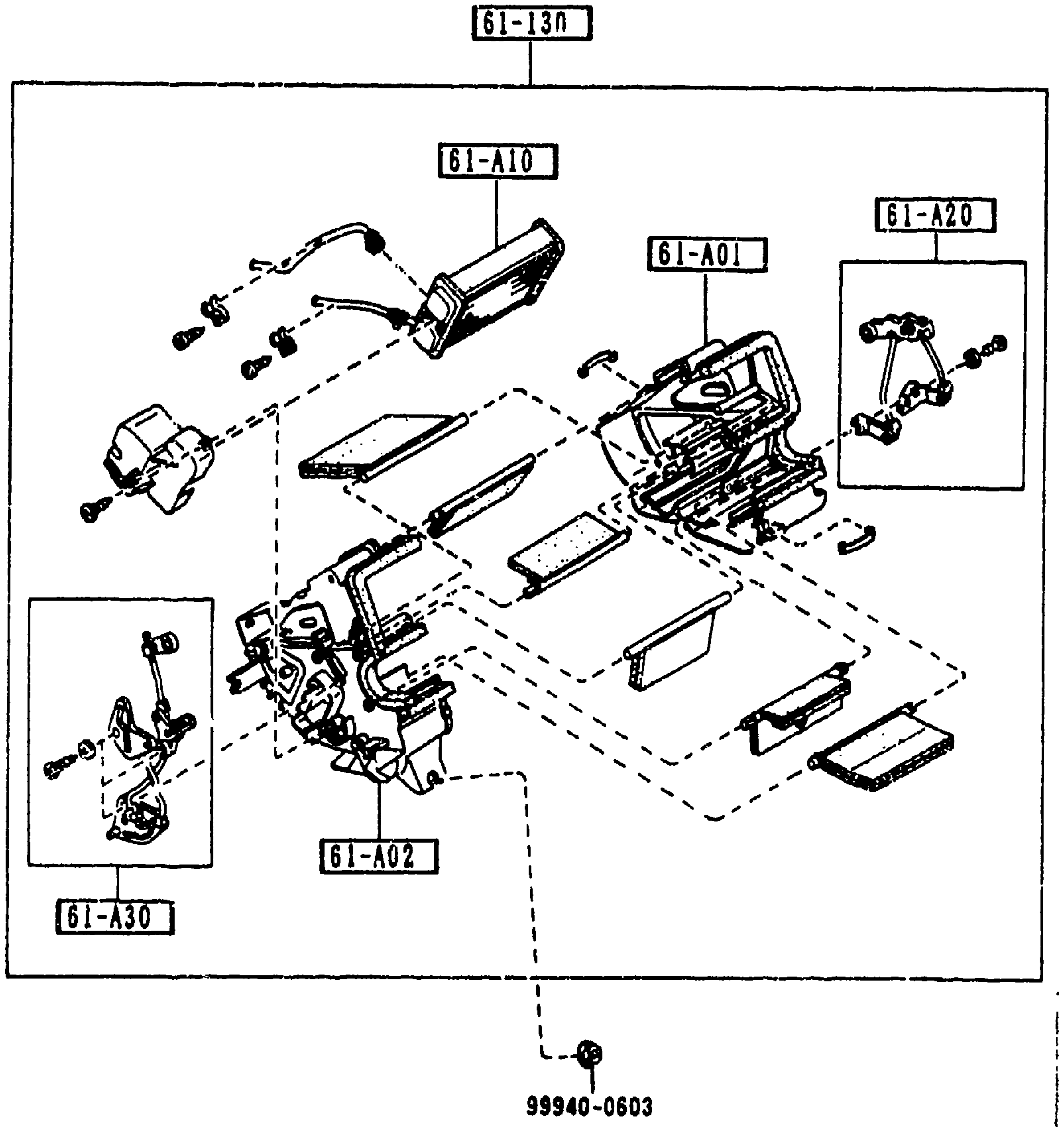
LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS
2-E05	5000	FRONT BUMPER
2-H05	5010	REAR BUMPER
2-J05	5030	WINDOW MOULDING & COWL GRILLES
2-L05	5101	HEAD LAMPS
2-M05	5103	HEAD LAMP RETRACTORS
2-D06	5105	FRONT COMBINATION LAMPS
2-F06	5110	REAR COMBINATION LAMPS
2-I06	5120	LICENSE LAMPS
2-J06	5180	REAR FINISHER
2-L06	5230	BONNET
2-N06	5260	TRUNK LID
2-D07	5310	BODY PANELS (FRONT)
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)
2-H07	5330	BODY PANELS (DASH & COWL PANEL)
2-I07	5340	BODY PANELS (SIDE)
2-C08	5370	BODY PANELS (FLOOR)
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)
2-G08	5390	FLOOR ATTACHMENTS
2-C09	5500	DASHBOARD EQUIPMENTS
2-E09	5520	METER HOOD
2-F09	5530	SPEEDOMETER CABLE
2-G09	5540	METER COMPONENTS
2-I09	5560	DASHBOARD & RELATED PARTS
2-L09	5570	CONSOLE
2-C10	5580	VENTILATOR
2-D10	5700	SEATS
2-K10	5790	SEAT BELTS
2-L10	5800	FRONT DOORS
2-C11	5830	FRONT DOOR MECHANISMS
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS
2-C12	6100	HEATER
2-D12	6110	HEATER UNIT COMPONENTS
2-E12	6115	HEATER CONTROLS COMPONENTS
2-F12	6120	HEATER BLOWER COMPONENTS
2-G12	6130	AIR CONDITIONER
2-K12	6135	O RING SET,PIPING
2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)
2-N12	6150	COOLING UNIT (AIR CONDITIONER)
2-C13	6300	WINDOW GLASSES
2-D13	6330	SUNROOF
2-M13	6600	SWITCHES & RELAYS (ENGINE)
2-D14	6610	DASHBOARD SWITCHES
2-E14	6611	COMBINATION SWITCH
2-F14	6630	RELAYS & UNIT (BODY)
2-G14	6635	DOOR SWITCH & HORNS
2-H14	6640	AUTO CRUISE CONTROL SYSTEM
2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)
2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)
2-L14	6700	WIRING HARNESSES(FRONT & REAR)
2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)
2-D15	6702	WIRING HARNESSES(DASHBOARD)
2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)
2-F15	6704	WIRING HARNESS CLAMPS
2-I15	6720	WINDSHIELD WASHER
2-K15	6730	WINDSHIELD WIPERS
2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)
2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS
2-C16	6840	TRIMS & SCUFF PLATES
2-E16	6860	FLOOR MATS & PADS
2-G16	6870	SERVICE TOOLS
2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS
2-J16	6930	CAUTION PLATES & LABELS
2-[illegible]	7250	QUARTER WINDOW & TRIMS
3-C03	7900	ACCESSORIES


HEATER BLOWER
(REFER TO SECT.NO.6120)
99940-0603
61-150
99264-0531
99264-0531
99286-2000P
61-211
61-479
61-212
99286-2000P
61-479
99940-0603
HEATER UNIT
(REFER TO SECT.NO.6110)
99865-05168
HEATER CONTROL
(REFER TO SECT.NO.6115)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-150		DUCT,AIR			
NA01-61-150 G (NA01-61-150A)	1				-9A01
NA01-61-150A	1				9A01-
61-211		HOSE NO.1,WATER			
NA01-61-211	1				
61-212		HOSE NO.2,WATER			
NA01-61-212 A (NA01-61-212A)	1				-9601
NA01-61-212A	1				9601-
61-479		GROMMET			
8871-61-219A	2				

9601 NA35MM-106797
9A01 NA35MM-122908

6110 HEATER UNIT COMPONENTS

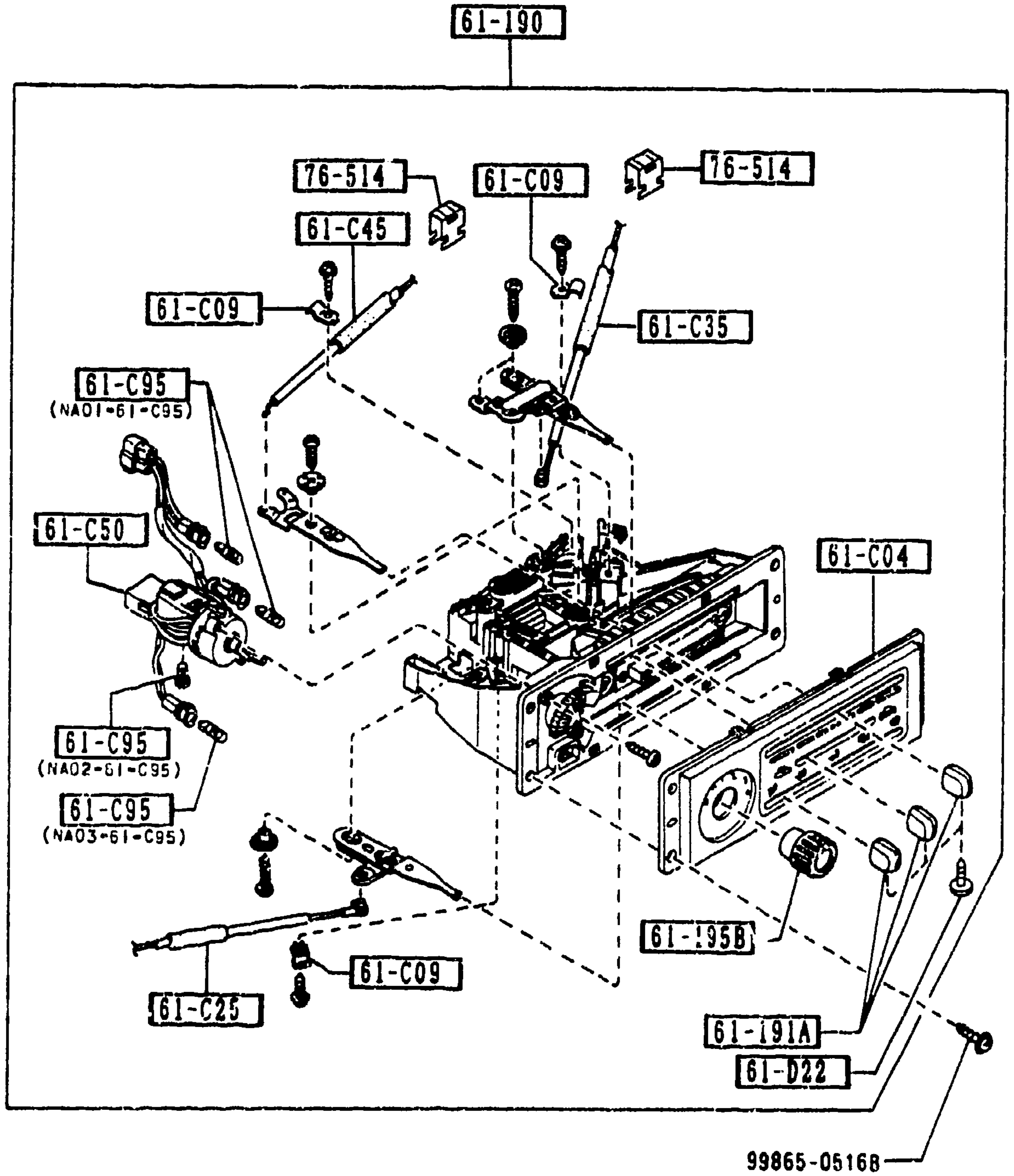

61-130
61-A10
61-A20
61-A01
61-A30
61-A02
99940-0603

6110 -1 * HEATER UNIT COMPONENTS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-A01		CASE'A',HEATER UNIT			
NA01-61-A01	1				
61-A02		CASE'B',HEATER UNIT			
NA01-61-A02	1				
61-A10		CORE,HEATER UNIT			
NA01-61-A10	1				
61-A20		LINK SET,TEMP			
NA01-61-A20	1				
61-A30		LINK SET,MODE			
NA01-61-A30	1				
61-130		HEATER UNIT			
NA01-61-130 G (NA01-61-130A)	1				-9A01
NA01-61-130A	1				9A01-

9A01 NA35**-122908

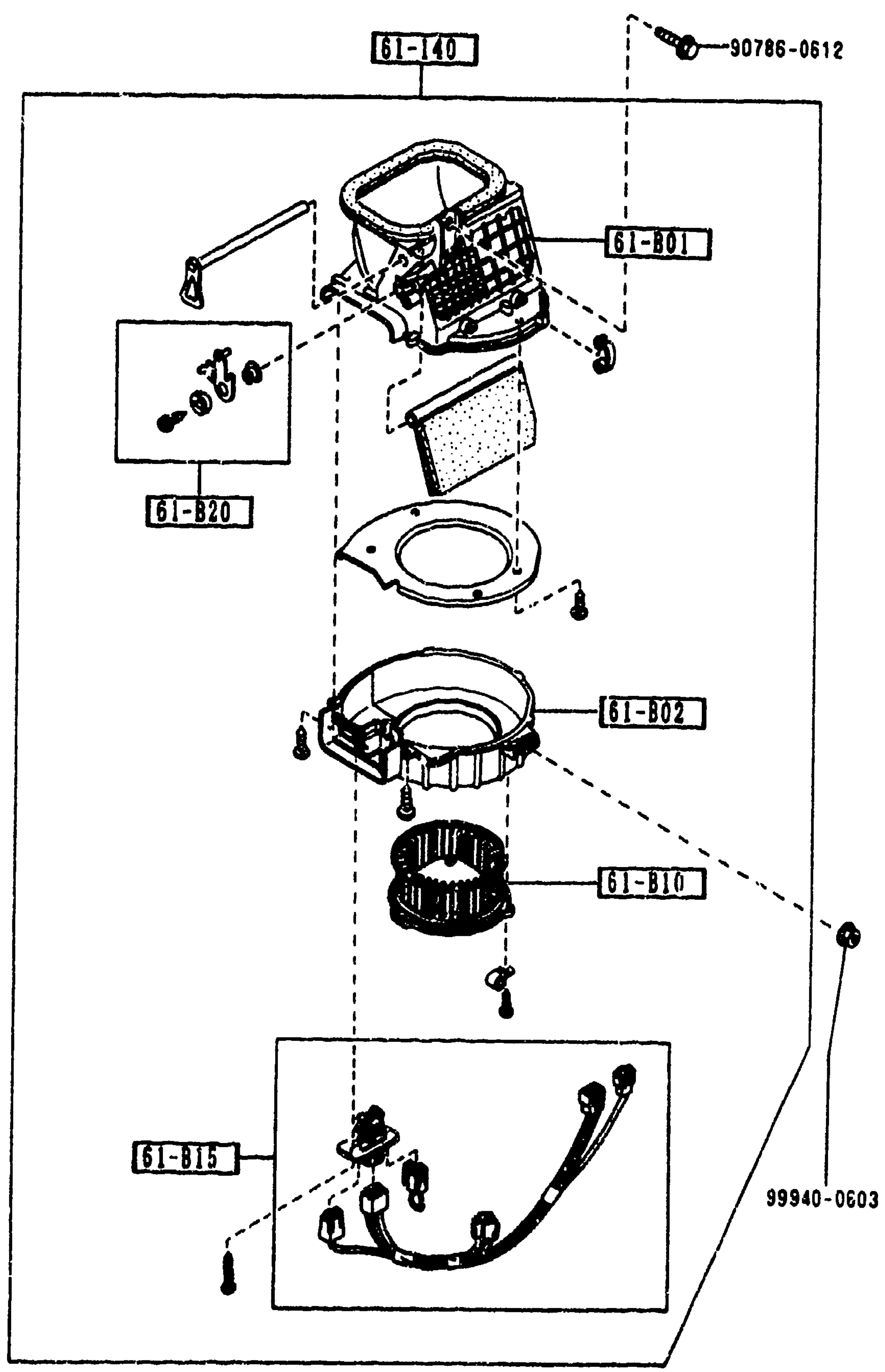
6115 HEATER CONTROLS COMPONENTS


61-190
76-514
61-C09
76-514
61-C45
61-C09
61-C35
61-C95
(NA01-61-C95)
61-C50
61-C04
61-C95
(NA02-61-C95)
61-C95
(NA03-61-C95)
61-195B
61-C09
61-C25
61-191A
61-D22
99865-05168

6115 -1 * HEATER CONTROLS COMPONENTS

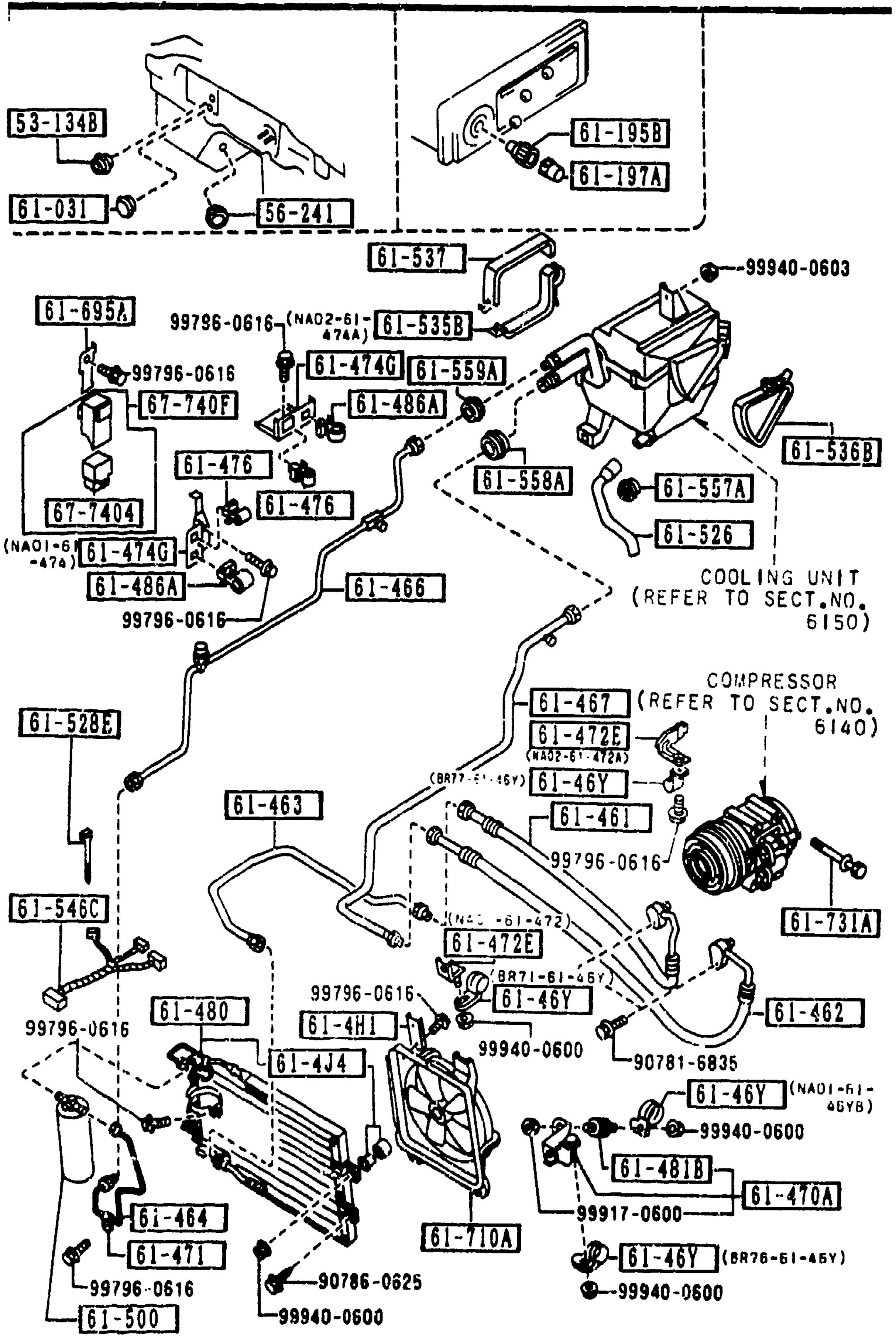
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-C04		PANEL,PLATE-MODE CONTROL			
NA01-61-C04	1				
61-C09		CLIP,HEATER CONTROL			
H260-61-C09	1				
61-C25		WIRE,TEMP. CONTROL			
NA01-61-C25	1				
61-C35		WIRE,MODE CONTROL			
NA01-61-C35	1				
61-C45		WIRE,RECYCLE & FRESH			
NA01-61-C45	1				
61-C50		SWITCH,FAN-HEATER CONTROL			
NA01-61-C50	1				
61-C95		BULB,MODE CONTROL			
NA01-61-C95	2				
NA02-61-C95	1				
NA03-61-C95	1				
61-D22		SCREW,RR HEATER UNIT			
NA01-61-D22	3				
61-190		CONTROL,HEATER			
NA01-61-190A	1				
61-191A		KNOB NO.1			
NA01-61-191	3				
61-195B		KNOB,FAN SWITCH			
NA01-61-195	1				
76-514		CLIP			
B001-76-526	2				

6120 HEATER BLOWER COMPONENTS


61-140
90786-0612
61-B01
61-B20
61-B02
61-B10
61-B15
99940-0603

6120 -1 ✕ HEATER BLOWER COMPONENTS

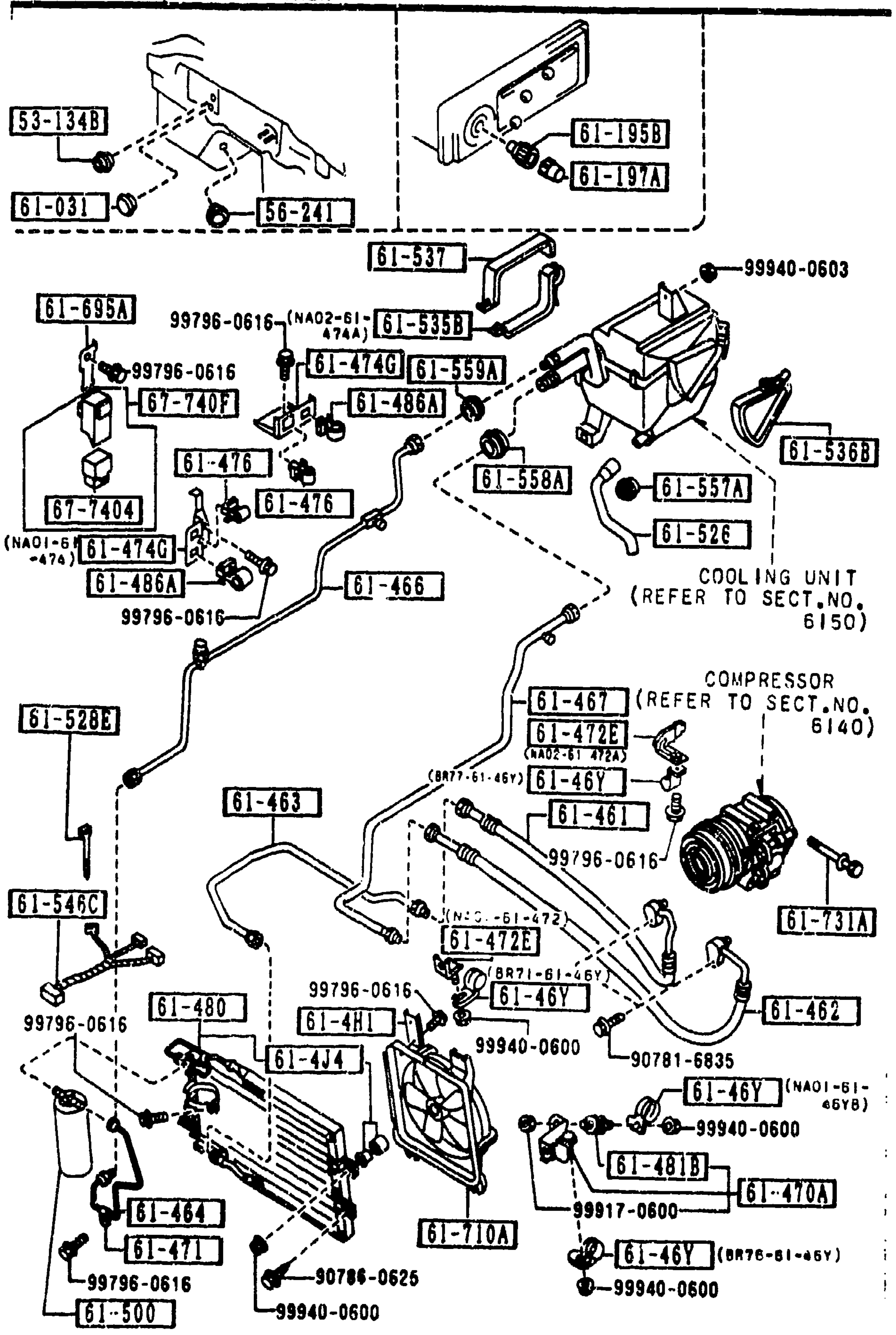
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-B01 NA01-61-B01	1	CASE'A',BLOWER UNIT			
61-B02 NA01-61-B02	1	CASE'B',BLOWER UNIT			
61-B10 NA01-61-B10	1	MOTOR,FAN-BLOWER UNIT			
61-B15 NA01-61-B15	1	RESISTOR,BLOWER UNIT			
61-B20 NA01-61-B20	1	LINK,RECYCLE & FRESH			
61-140 NA01-61-140A	1	BLOWER UNIT			


53-134B
61-031
56-241
61-195B
61-197A
61-537
99940-0603
61-695A
99796-0616
(NA02-61-474A)
61-535B
99796-0616
61-474G
61-559A
67-740F
61-486A
61-476
61-558A
61-536B
61-476
61-557A
67-7404
61-526
(NA01-61-474)
61-474G
61-486A
61-466
COOLING UNIT
(REFER TO SECT.NO. 6150)
99796-0616
61-528E
61-467
COMPRESSOR
(REFER TO SECT.NO. 6140)
61-472E
(NA02-61-472A)
(BR77-61-46Y)
61-46Y
61-463
61-461
99796-0616
61-546C
61-731A
(NA01-61-472)
61-472E
99796-0616
(BR71-61-46Y)
61-46Y
61-480
61-4H1
61-462
99796-0616
99940-0600
61-4J4
90781-6835
61-46Y
(NA01-61-46YB)
99940-0600
61-481B
61-470A
61-464
99917-0600
61-471
61-710A
61-46Y
(BR76-61-46Y)
99796-0616
90786-0625
99940-0600
61-500
99940-0600

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
53-134B		RUBBER,DUST SEAL			
0187-53-134	1				
56-241		PLUG,DRAIN			
0118-56-241	1				
61-031		PLUG,HOLE			
1708-61-031	1				
61-195B		KNOB,FAN SWITCH			
NA01-61-193	1				
61-197A		KNOB,AIR CON.			
NA01-61-197	1				
61-4H1		BRACKET,HOSE			
NA01-61-4H1	1	(A)			
61-4J4		RUBBER,INS.-CONDR			
NA01-61-4J4	4	(A)			
61-46Y		CLIP,PIPE			
BR71-61-46Y	1	(A)			
BR76-61-46Y	1	(A)			
BR77-61-46Y	1	(A)			
NA01-61-46YA AN(NA01-61-46YB)	1	(A)			-0116
NA01-61-46YB	1	(A)			0116-
61-461		HOSE,FLEXIBLE-HIGH			
NA01-61-461B	1	(A)			
61-462		HOSE,FLEXIBLE-LOW			
NA01-61-462C	1	(A)			

0116 NA35**-134600

6130 AIR CONDITIONER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56-241
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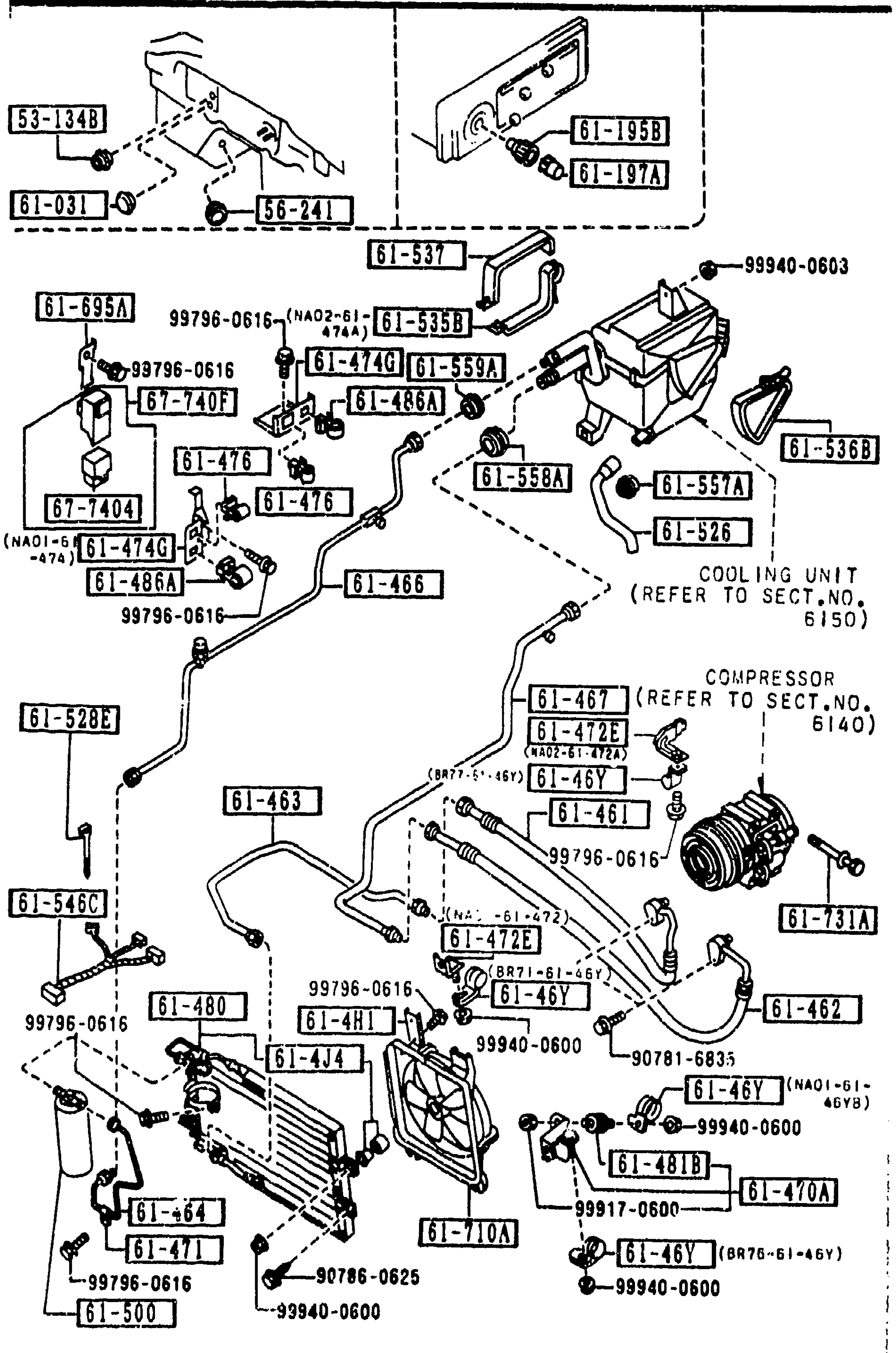
(NA02-61-474A)
61-535B
99796-0616
61-474G
61-559A
67-740F
61-486A
61-476
61-476
61-536B
61-558A
61-557A
67-7404
61-526
(NA01-61-474)
61-474G
61-486A
COOLING UNIT
(REFER TO SECT.NO. 6150)
61-466
99796-0616
61-467
COMPRESSOR
(REFER TO SECT.NO. 6140)
61-472E
(NA02-61 472A)
61-528E
(BR77-61-46Y)
61-46Y
61-463
61-461
99796-0616
61-546C
(NA0.-61-472)
61-472E
61-731A
(BR71-61-46Y)
99796-0616
61-46Y
61-462
61-480
61-4H1
99796-0616
99940-0600
61-4J4
90781-6835
61-46Y
(NA01-61-46YB)
99940-0600
61-481B
61-464
61-470A
99917-0600
61-710A
61-471
61-46Y
(BR76-61-46Y)
90786-0625
99796-0616
99940-0600
61-500
99940-0600

6130 -2 AIR CONDITIONER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-463		PIPE NO.1,COOLER			
NA02-61-466B AN(NA02-61-466C)	1	(A)			-0116
NA02-61-466C	1	(A)			0116-
61-464		PIPE NO.2,COOLER			
NA01-61-466	1	(A)			
61-466		PIPE NO.4,COOLER			
NA01-61-467A	1	(A)			-0529
NA01-61-467B C (NA01-61-467C)	1	(A)			0529-0615
NA01-61-467C	1	(A)			0615-
61-467		PIPE NO.5,COOLER			
NA01-61-468A	1	(A)			
61-470A		BRACKET,HOSE			
NA02-61-470A AN(NA02-61-470B)	1				-0116
NA02-61-470B	1	(A)			0116-
61-471		CLIP,PIPE			
BF67-61-471	1	(A)			
61-472E		BRACKET,CLAMP			
NA01-61-472	1	(A)			
NA02-61-472 A (NA02-61-472A)	1	(A)			-9731
NA02-61-472A	1	(A)			9731-
61-474G		BRACKET,PIPE			
NA01-61-474	1	(A)			
NA02-61-474A	1	(A)			

9731 NA35**-116114
0116 NA35**-134600
0529 NA35**-154173
0615 NA35**-157507

6130 AIR CONDITIONER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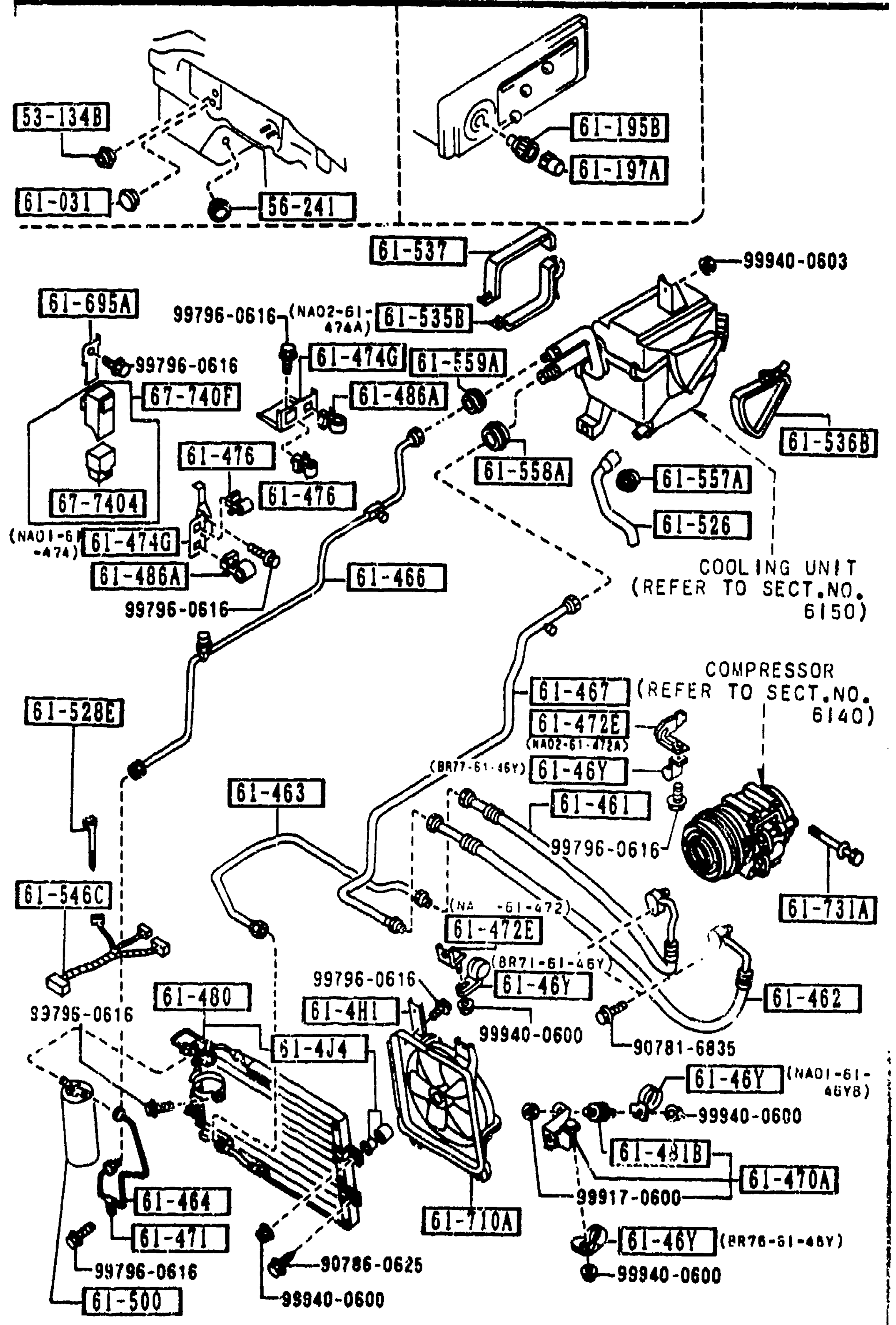
61-031
56-241
61-195B
61-197A
61-537
99940-0603
61-695A
99796-0616
(NA02-61-474A)
61-535B
99796-0616
61-474G
61-559A
67-740F
61-486A
61-476
61-558A
61-536B
61-476
61-557A
67-7404
61-526
(NA01-61-474)
61-474G
61-486A
61-466
COOLING UNIT (REFER TO SECT.NO. 6150)
99796-0616
61-528E
61-467
COMPRESSOR (REFER TO SECT.NO. 6140)
61-472E
(NA02-61-472A)
(BR77-61-46Y)
61-46Y
61-463
61-461
99796-0616
61-546C
61-731A
(NA -61-472)
61-472E
(BR71-61-46Y)
99796-0616
61-46Y
61-462
61-480
61-4H1
99796-0616
99940-0600
61-4J4
90781-6835
61-46Y
(NA01-61-46YB)
99940-0600
61-481B
61-470A
61-464
99917-0600
61-710A
61-471
61-46Y
(BR76-61-46Y)
99796-0616
90786-0625
99940-0600
61-500
99940-0600

6130 -3 AIR CONDITIONER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-476 NA02-61-476	2	CLIP (A)			
61-480 NA01-61-480	1	CONDENSER (A)			
61-481B NA01-61-487	1	RUBBER,INSULATOR			
61-486A UB39-61-486A	2	CLIP			
61-500 NA01-61-500	1	TANK,LIQUID (A)			
61-526 NA01-61-526	1	HOSE,DRAIN (A)			
61-528E NA01-61-435	2	BAND (G)			
61-535B NA01-61-52YA	1	PLATE NO.1,SEAL (A)			
61-536B NA01-61-52Z	1	PLATE NO.2,SEAL (A)			
61-537 NA01-61-529	1	PLATE NO.3,SEAL (A)			
61-546C NA01-61-546B	1	HARNESS,WIRE (A)			
61-557A FB04-61-557	1	GROMMET (A)			

6130 AIR CONDITIONER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61-031
56-241
61-195B
61-197A
61-537
99940-0603
61-695A
99796-0616
(NA02-61-474A)
61-535B
61-474G
61-559A
99796-0616
67-740F
61-486A
61-536B
61-476
61-476
61-558A
61-557A
67-7404
61-526
(NA01-61-474)
61-474G
61-486A
99796-0616
61-466
COOLING UNIT
(REFER TO SECT.NO. 6150)
COMPRESSOR
61-467
(REFER TO SECT.NO. 6140)
61-528E
61-472E
(NA02-61-472A)
(BR77-61-46Y)
61-46Y
61-463
61-461
99796-0616
61-546C
61-731A
(NA -61-472)
61-472E
(BR71-61-46Y)
99796-0616
61-46Y
61-462
99796-0616
61-480
61-4H1
99940-0600
61-4J4
90781-6835
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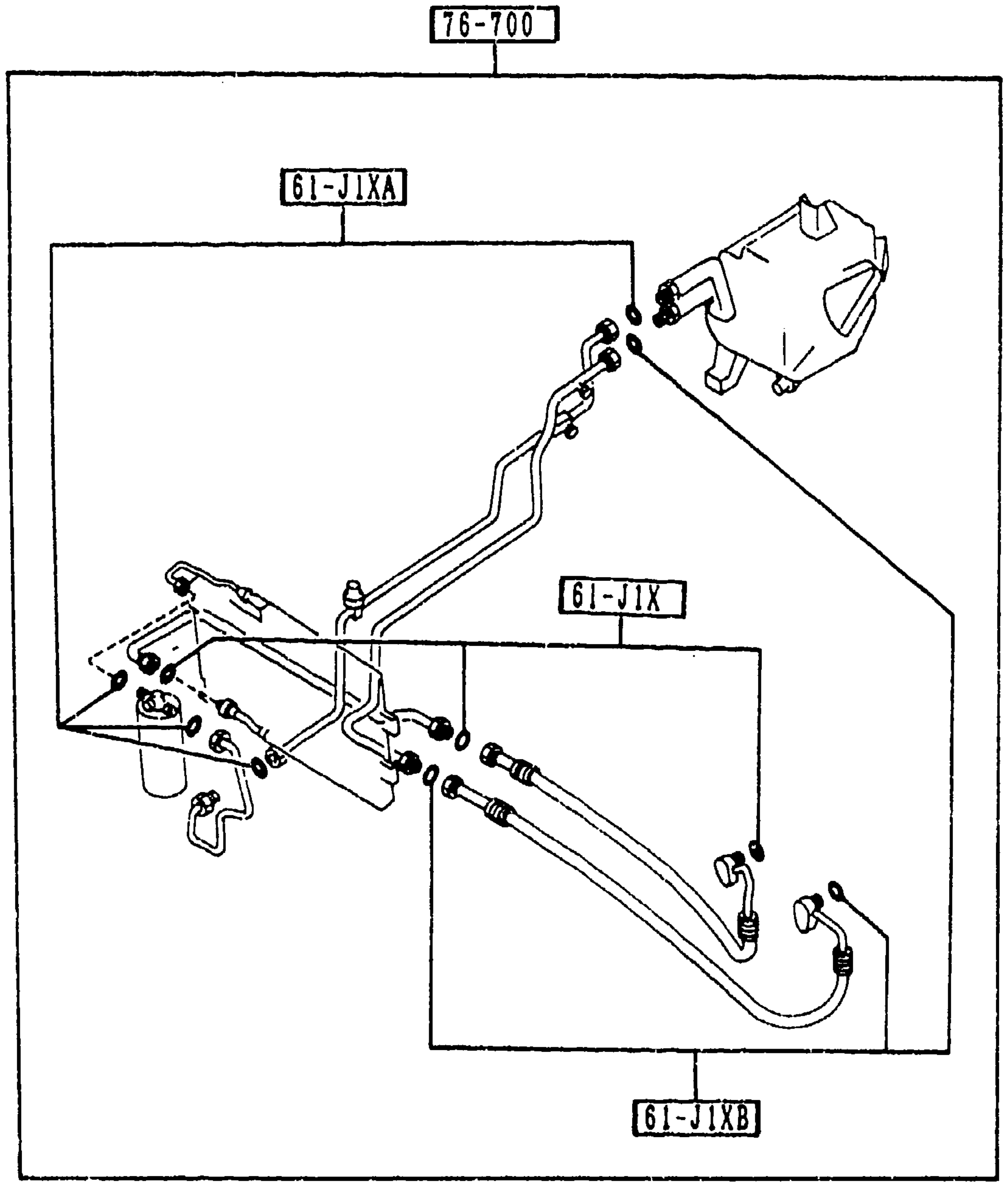
(NA01-61-46YB)
99940-0600
61-481B
61-470A
61-464
99917-0600
61-710A
61-471
61-46Y
(BR76-61-46Y)
90786-0625
99796-0616
99940-0600
61-500
99940-0600

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-558A BF67-61-558	1	GROMMET (A)			
61-559A BF67-61-559	1	GROMMET (A)			
61-695A NA01-61-695	1	BRACKET,RELAY (A)			
61-710A NA01-61-710	1	FAN,CONDENSER (A)			
61-731A B111-61-731	4	BOLT,AIR CON.			
67-740F B462-67-740	1	RELAY,COOLING FAN 20A TR			
67-7404 B458-67-740	1	RELAY,TRANSFER 20A TR			

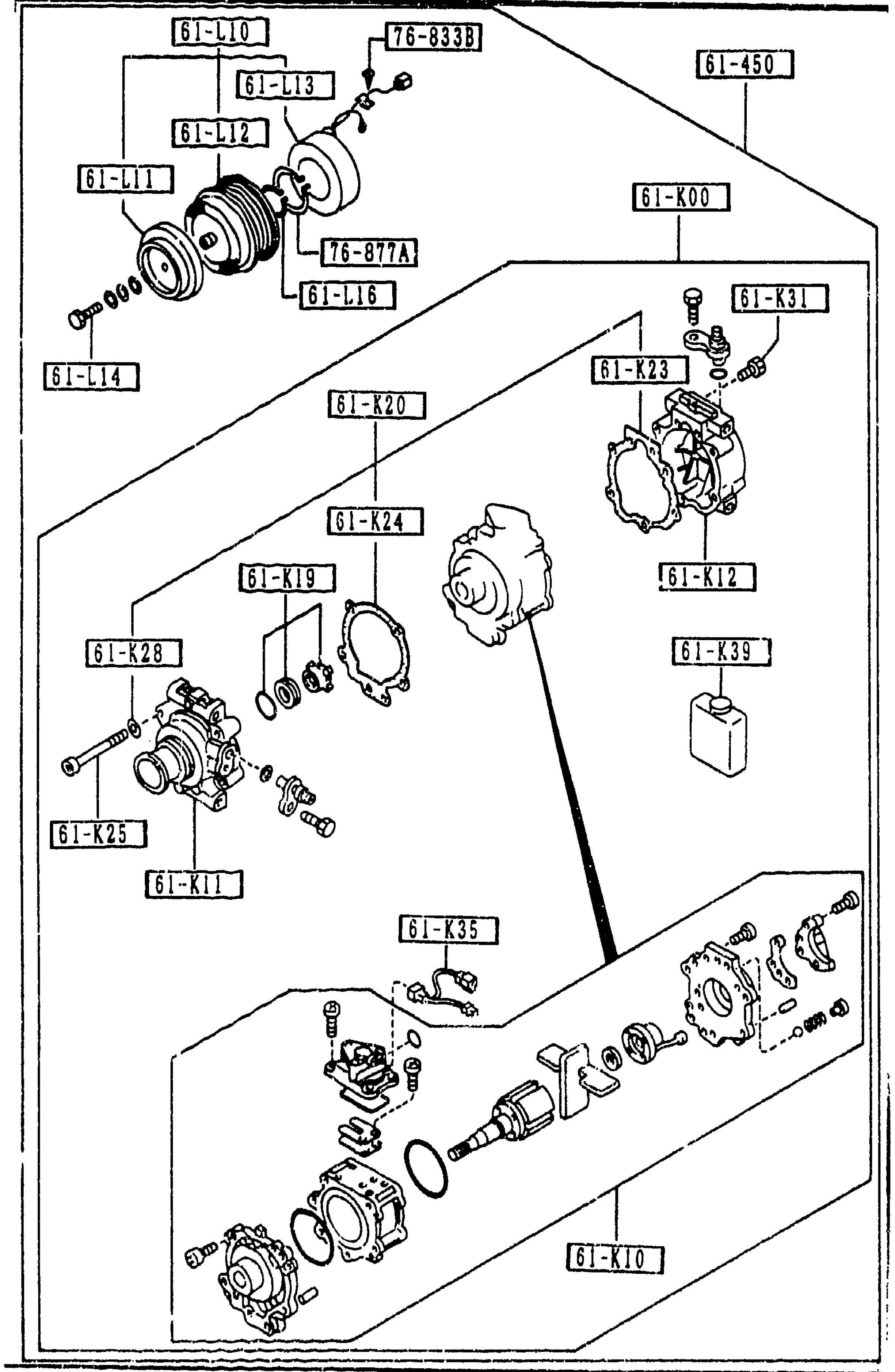
6135 O RING SET,PIPING



6135 -1 M O RING SET,PIPING

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-J1X GJY1-61-J1X	1	RING,'O'-NO.1 (A)			
61-J1XA GJY2-61-J1X	1	RING,'O'-NO.2 (A)			
61-J1XB GJY3-61-J1X	1	RING,'O'-NO.3 (A)			
76-700 NA01-76-700	1	RING SET,'O'-AIR CON (A)			

6140 COMPRESSOR COMPONENTS (AIR CONDITIONER)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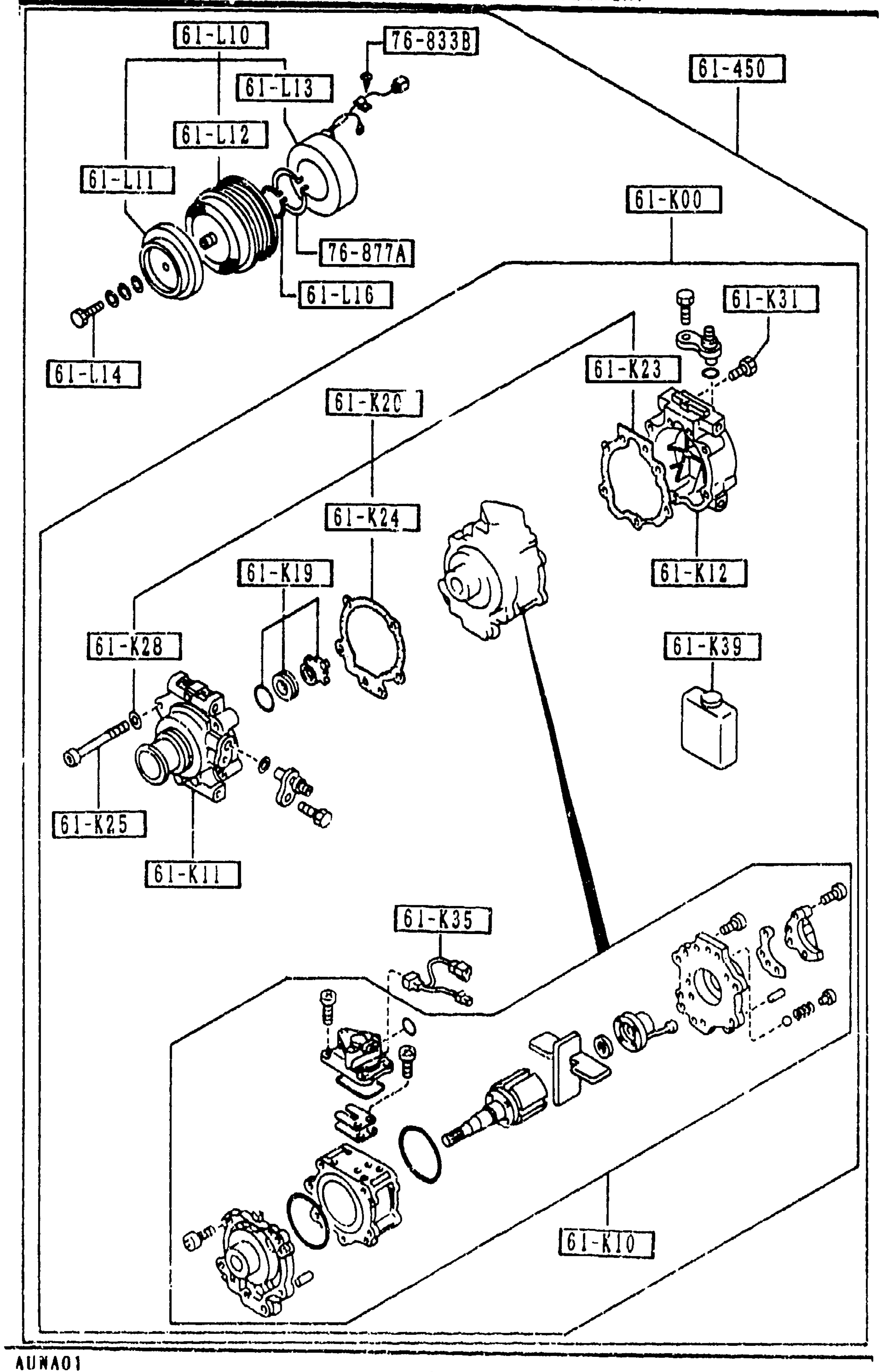
76-833B
61-L13
61-450
61-L12
61-L11
61-K00
76-877A
61-L16
61-K31
61-L14
61-K23
61-K20
61-K24
61-K12
61-K19
61-K28
61-K39
61-K25
61-K11
61-K35
61-K10

6140 -1 COMPRESSOR COMPONENTS (AIR CONDITIONER)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-K00 NA02-61-K00	1	COMPRESSOR,AIR CON. (A)			
61-K10 NA02-61-K10	1	SHAFT,CYL -COMPRESSOR (A)			
61-K11 NA02-61-K11	1	HEAD,CYL.-COMPRESSOR (A)			
61-K12 NA02-61-K12	1	HEAD,CYL.-COMPRESSOR (A)			
61-K19 F065-61-K19	1	SEAL,SHAFT-COMPR.			
61-K20 NA02-61-K2X	1	GASKET KIT,COMPRESSOR (A)			
61-K23 NA02-61-K23	1	PLUG,COMPRESSOR (A)			
61-K24 NA02-61-K24	1	GASKET,COMPRESSOR (A)			
61-K25 F065-61-K25	5	BOLT,COMPRESSOR-AIR CON.			
61-K28 NA02-61-K28	5	WASHER,COMPRESSOR (A)			
61-K31 F065-61-K31	2	BOLT,COMPRESSOR			
61-K35 NA02-61-K35	1	HARNESS,COMPRESSOR (A)			

6140 COMPRESSOR COMPONENTS (AIR CONDITIONER)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61-450
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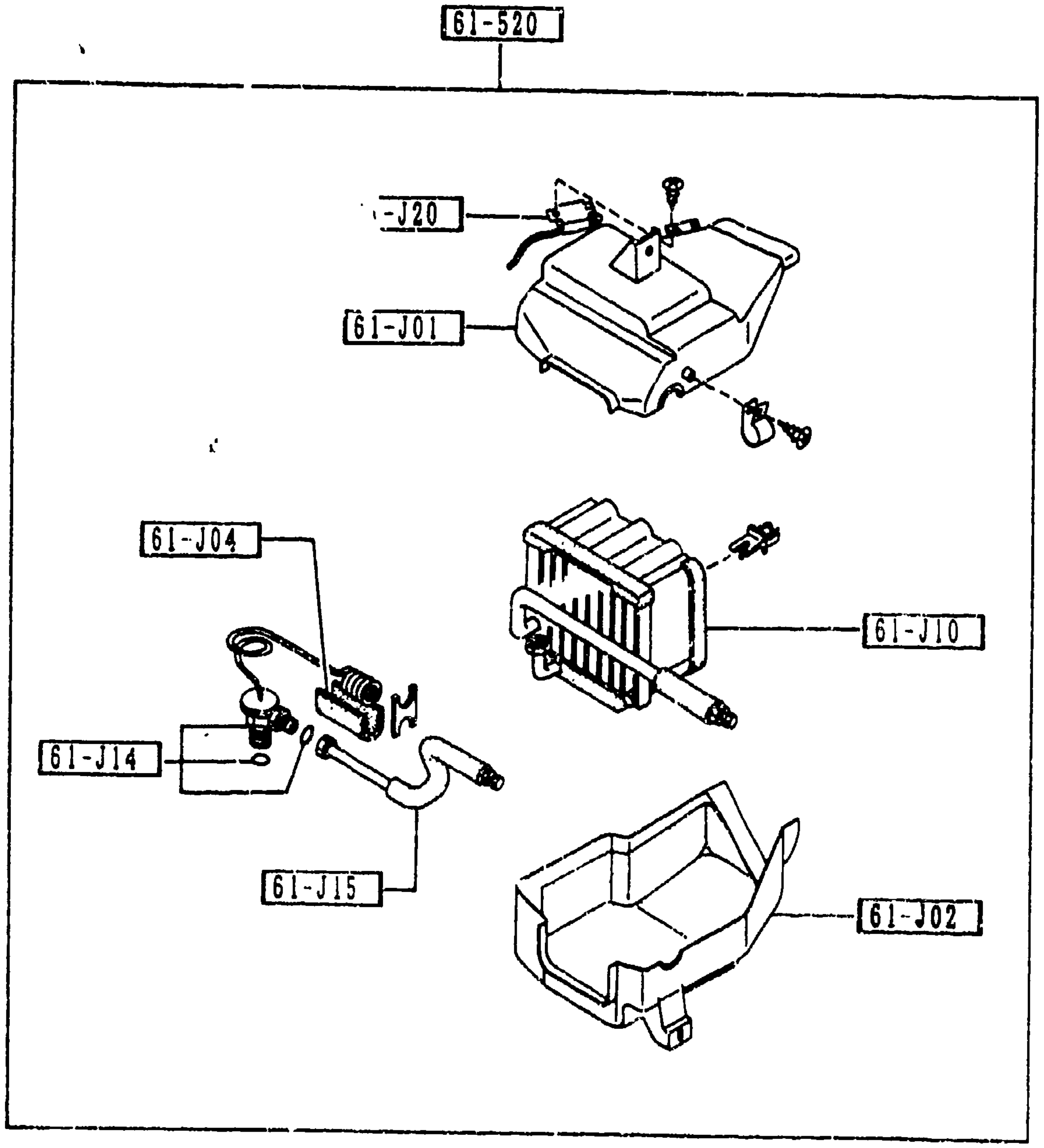
61-K00
76-877A
61-L16
61-K31
61-L14
61-K23
61-K20
61-K24
61-K12
61-K19
61-K28
61-K39
61-K25
61-K11
61-K35
61-K10

6140 -2 * COMPRESSOR COMPONENTS (AIR CONDITIONER)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-K39 NA02-61-K39	1	OIL,COMPRESSOR (A)			
61-L10 NA02-61-L10	1	CLUTCH,MAGNET (A)			
61-L11 F065-61-L11	1	ARMATURE,MAGNET CLUTCH			
61-L12 NA02-61-L12	1	PULLEY,MAGNET CLUTCH (A)			
61-L13 F065-61-L13	1	COIL,FIELD-MAGNET CLUTCH			
61-L14 F065-61-L14	1	BOLT,MAGNET CLUTCH			
61-L16 F065-61-L16	1	RING,SNAP-MAGNET CLUTCH			
61-450 NA02-61-450A	1	COMPRESSOR (A)			
76-833B B001-76-734	1	WASHER			
76-877A B001-76-725	1	RING,SNAP			

6150 COOLING UNIT (AIR CONDITIONER)

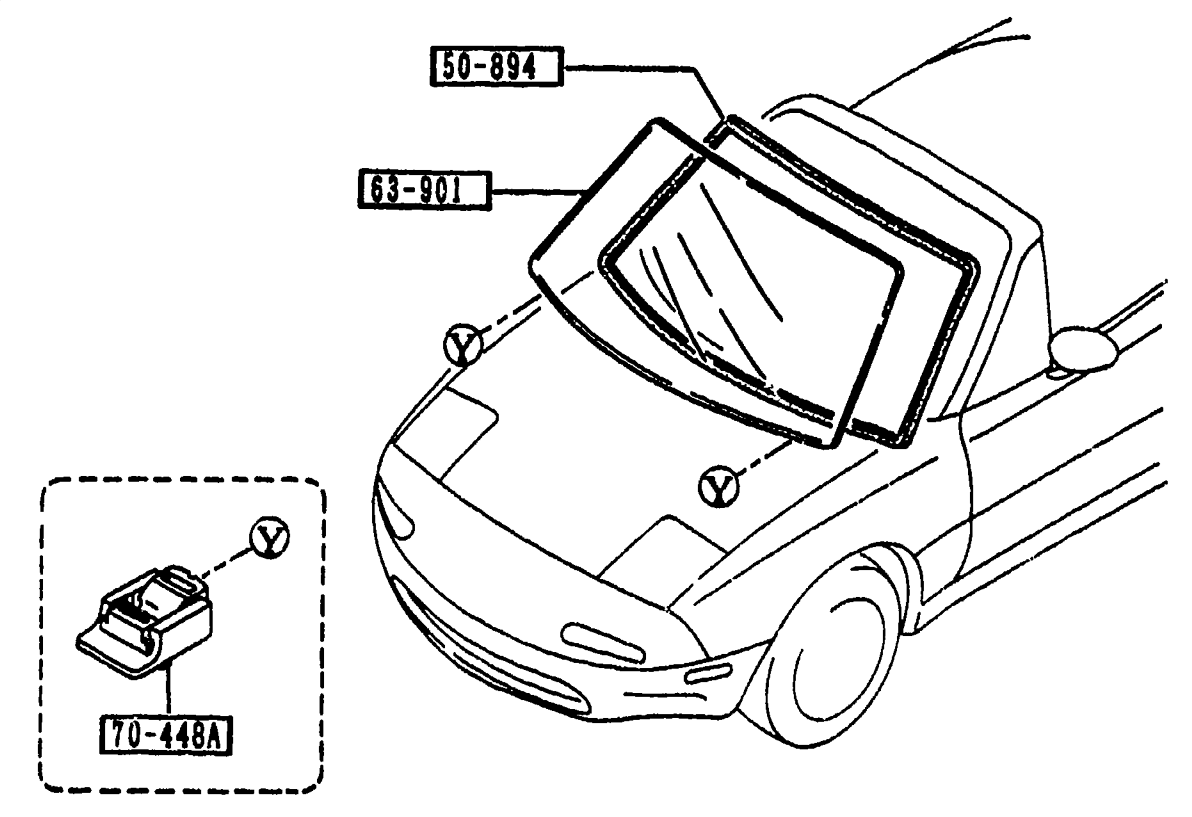


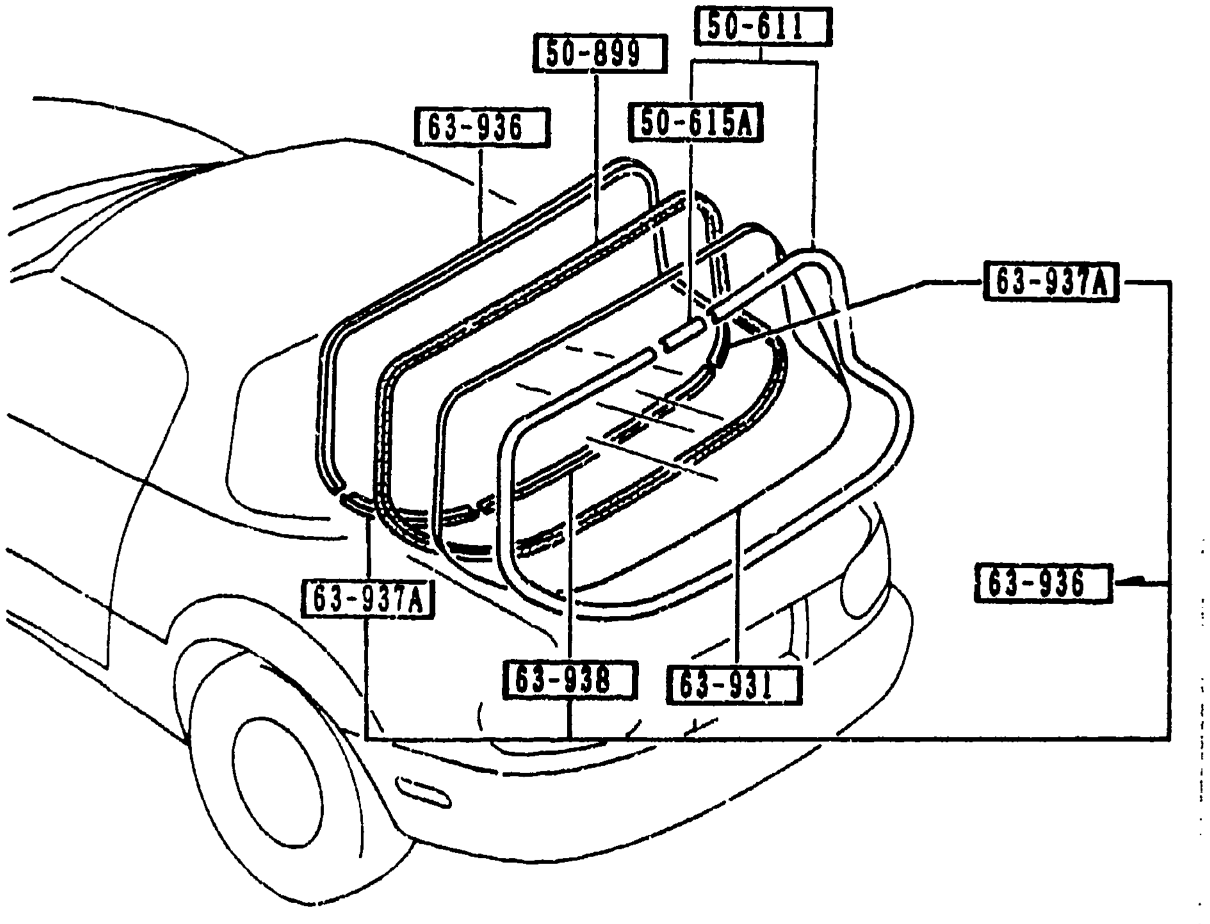
6150 -1 * COOLING UNIT (AIR CONDITIONER)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-J01 NA01-61-J01	1	CASE'A',COOLING UNIT (A)			
61-J02 NA01-61-J02	1	CASE'B',COOLING UNIT (A)			
61-J04 NA01-61-J04	1	SEAL,COOLING UNIT (A)			
61-J10 NA01-61-J10	1	EVAPORATOR (A)			
61-J14 NA01-61-J14	1	VALVE,EXPANSION (A)			
61-J15 NA01-61-J15	1	PIPE,COOLING UNIT (A)			
61-J20 NA01-61-J20	1	THERMOSTAT,COOLING UNIT (A)			
61-520 NA01-61-520B	1	UNIT,COOLING (A)			

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS
2-E05	5000	FRONT BUMPER
2-H05	5010	REAR BUMPER
2-J05	5030	WINDOW MOULDING & COWL GRILLES
2-L05	5100	HEAD LAMPS
2-M05	5103	HEAD LAMP RETRACTORS
2-D06	5105	FRONT COMBINATION LAMPS
2-F06	5110	REAR COMBINATION LAMPS
2-I06	5120	LICENSE LAMPS
2-J06	5180	REAR FINISHER
2-L06	5230	BONNET
2-N06	5260	TRUNK LID
2-D07	5310	BODY PANELS (FRONT)
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)
2-H07	5330	BODY PANELS (DASH & COWL PANEL)
2-I07	5340	BODY PANELS (SIDE)
2-C08	5370	BODY PANELS (FLOOR)
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)
2-G08	5390	FLOOR ATTACHMENTS
2-C09	5500	DASHBOARD EQUIPMENTS
2-E09	5520	METER HOOD
2-F09	5530	SPEEDOMETER CABLE
2-G09	5540	METER COMPONENTS
2-I09	5560	DASHBOARD & RELATED PARTS
2-L09	5570	CONSOLE
2-C10	5580	VENTILATOR
2-D10	5700	SEATS
2-K10	5790	SEAT BELTS
2-L10	5800	FRONT DOORS
2-C11	5830	FRONT DOOR MECHANISMS
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS
2-C12	6100	HEATER
2-D12	6110	HEATER UNIT COMPONENTS
2-E12	6115	HEATER CONTROLS COMPONENTS
2-F12	6120	HEATER BLOWER COMPONENTS
2-G12	6130	AIR CONDITIONER
2-K12	6135	O RING SET,PIPING
2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)
2-N12	6150	COOLING UNIT (AIR CONDITIONER)
2-C13	6300	WINDOW GLASSES
2-D13	6310	SUNROOF
2-M13	6600	SWITCHES & RELAYS (ENGINE)
2-D14	6610	DASHBOARD SWITCHES
2-E14	6611	COMBINATION SWITCH
2-F14	6630	RELAYS & UNIT (BODY)
2-G14	6635	DOOR SWITCH & HORNS
2-H14	6640	AUTO CRUISE CONTROL SYSTEM
2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)
2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)
2-L14	6700	WIRING HARNESSES(FRONT & REAR)
2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)
2-D15	6702	WIRING HARNESSES(DASHBOARD)
2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)
2-F15	6704	WIRING HARNESS CLAMPS
2-I15	6720	WINDSHIELD WASHER
2-K15	6730	WINDSHIELD WIPERS
2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)
2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS
2-C16	6840	TRIMS & SCUFF PLATES
2-E16	6860	FLOOR MATS & PADS
2-G16	6870	SERVICE TOOLS
2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS
2-J16	6930	CAUTION PLATES & LABELS
2-L16	7250	QUARTER WINDOW & TRIMS
3-C03	7900	ACCESSORIES





PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-611		MOULD,RR.WINDOW			
NAY1-63-930	1	OPTION, (W/DETACHABLE TOP-B. COLOR,)			
50-615A		JOINT,BACK WIND MOULD			
NA01-63-934	1	OPTION, (W/DETACHABLE TOP-B. COLOR,)			
50-894		DUM,FRONT-WIND.			
NA01-50-894	1				
50-899		DUM,REAR-WIND.			
NA01-63-895	1	OPTION, (W/DETACHABLE TOP-B. COLOR,)			
63-901		GLASS,WINDSHIELD			
NA01-63-901	1				
63-931		GLASS,BACK WINDOW			
NA01-63-931C	1	OPTION, (W/DETACHABLE TOP-B. COLOR,)			
63-936		PROTR,BACK WINDOW-UPPER			
NA01-63-936A	1	OPTION, (W/DETACHABLE TOP-B. COLOR,)			-9916
NA01-63-936A	2	OPTION, (W/DETACHABLE TOP-B. COLOR,)			9916-
63-937A		PROTR,BACK WINDOW-SIDE			
NA01-63-937	2	OPTION, (W/DETACHABLE TOP-B. COLOR,)			-9916
63-938		PROTR,BACK WINDOW-LOWER			
NA01-63-938	1	OPTION, (W/DETACHABLE TOP-B. COLOR,)			-9916
70-448A		SPACER'B'			
GJ21-50-891	2				

9916 NA35**-121163

6330 SUNROOF (1/2)

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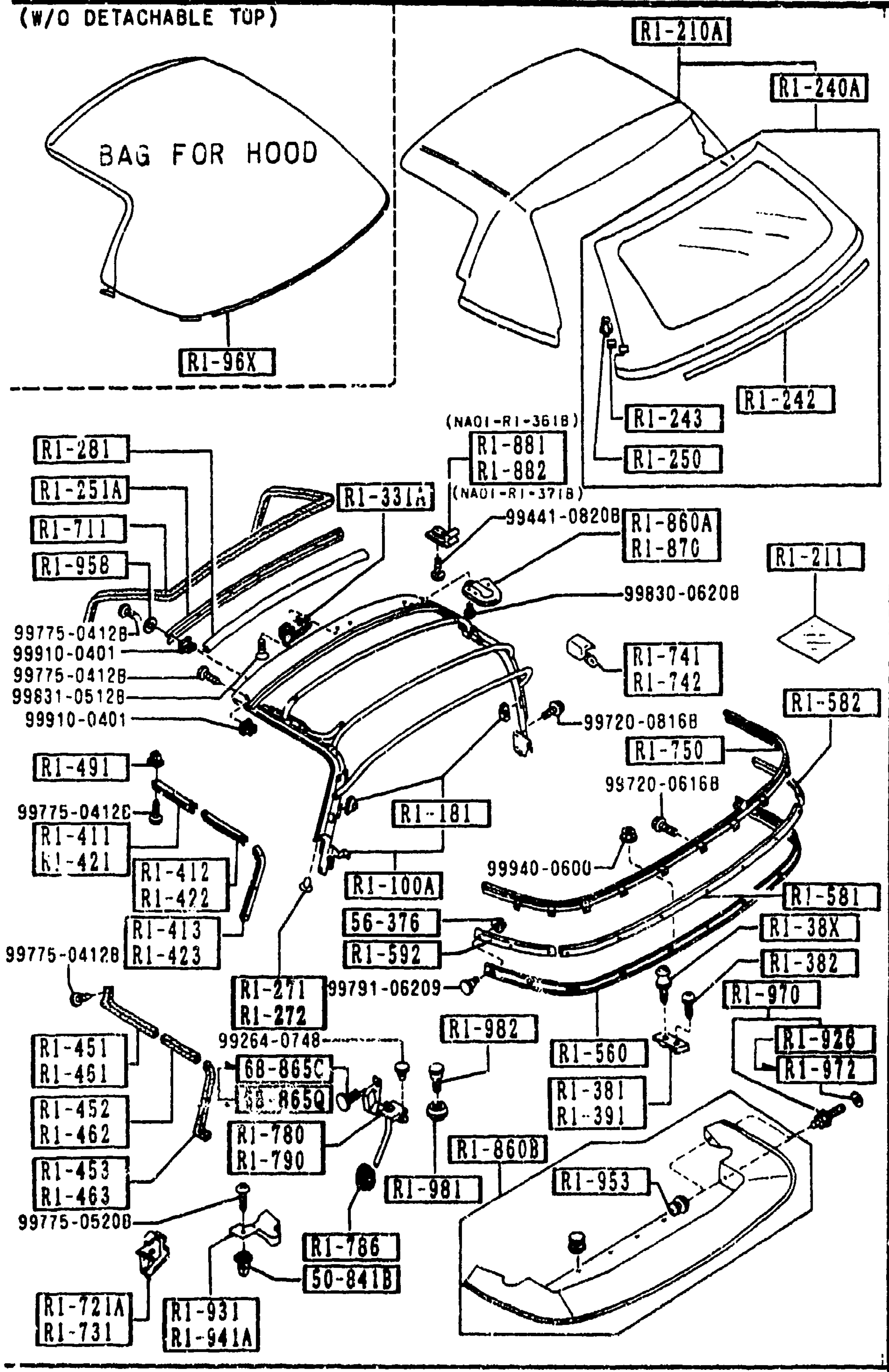
(W/O DETACHABLE TOP)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R1-210A
R1-240A
R1-242
R1-243
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R1-958
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99910-0401
99775-0412B
99831-0512B
99910-0401
(NA01-R1-361B)
R1-881
R1-882
(NA01-R1-371B)
R1-331A
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R1-860A
R1-870
99830-0620B
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R1-750
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R1-941A

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6330 SUNROOF (2/2)

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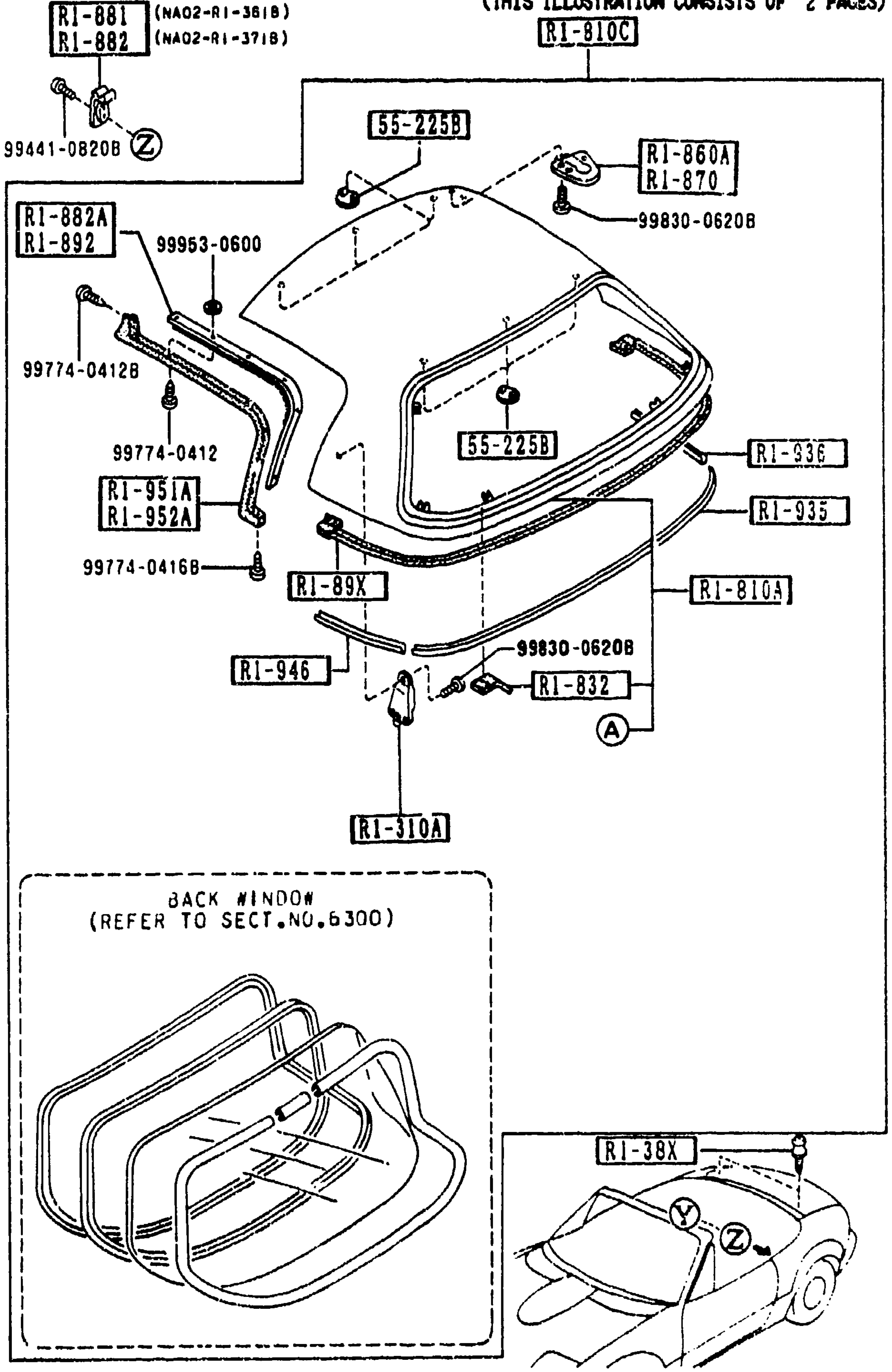
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R1-870
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R1-892
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R1-936
R1-935
R1-89X
R1-810A
R1-946
99830-0620B
R1-832
A
R1-310A
BACK WINDOW
(REFER TO SECT.NO.6300)
R1-38X
Y
Z

6330 SUNROOF (1/2)
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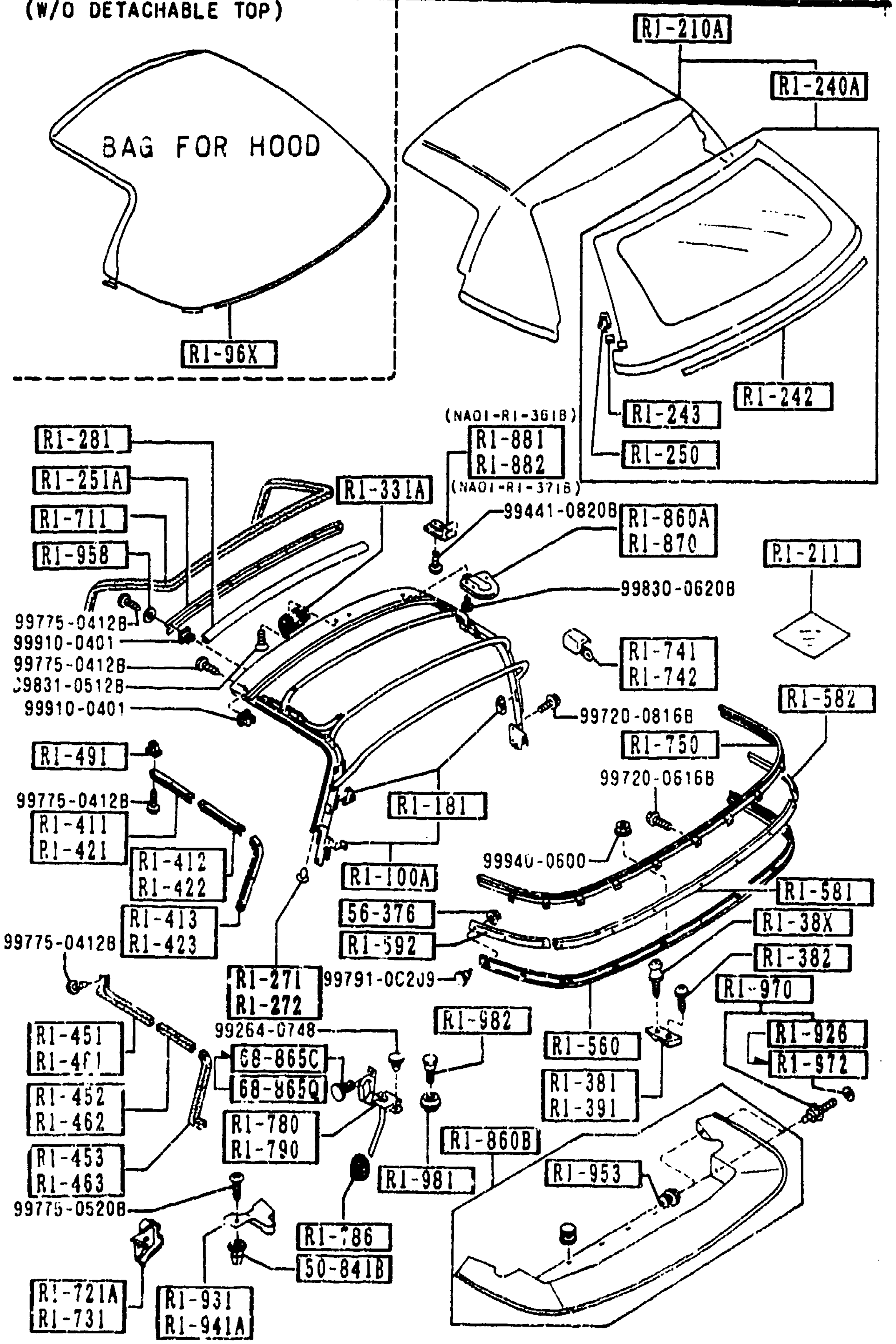
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99775-0412B
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99910-0401
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R1-786
50-841B
R1-721A
R1-731
R1-931
R1-941A

AUNA01

(CONT'D)

6330 -1 SUNROOF

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODFL/RESTRICTION	FROM-TO
R1-100A		LINK,SOFT TOP			
NA01-R1-100C AN(NA01-R1-100D)	1				-9701
NA01-R1-100D	1				9701-
R1-181		STOPPER,LINK-HOOD			
NA01-R1-181	2				9701-
R1-210A		FABRIC,TOP-SOFT TOP			
NA01-R1-210D A (NA01-R1-210E)	1				-9522
NA01-R1-210E A (NA01-R1-210F)	1				9522-9620
NA01-R1-210F AN(NA01-R1-210G)	1				9620-0201
NA01-R1-210G	1				0201-
R1-211		CLOTH,REPAIR-TOP			
NAY1-R1-211	1				
R1-240A		WINDOW,BACK-D. TOP			
*NAY1-R1-240C	1	BLACK			
R1-242		TAPE,SEAL-RAIN RAIL			
NAY1-R1-242	1				
R1-243		STOPPER,ZIPPER-BACK WINDOW			
NAY1-R1-243	2				
R1-250		HEAD,ZIPPER-BACK WIN DOW			
NA01-R1-250 AN(NA01-R1-250A)	1				-0201
NA01-R1-250A	1				0201-
R1-251A		PLATE(FRT),SET-ROOF PANEL			
NA01-R1-291	1				
R1-271		CLIP(R),FORM PLATE			
NA01-R1-271	1				0601-
R1-272		CLIP(L),FORM PLATE			

9522 NA35**-104861
9620 NA35**-110236
9701 NA35**-111969
0201 NA35**-137180
0601 NA35**-154752

6330 SUNROOF (2/2)

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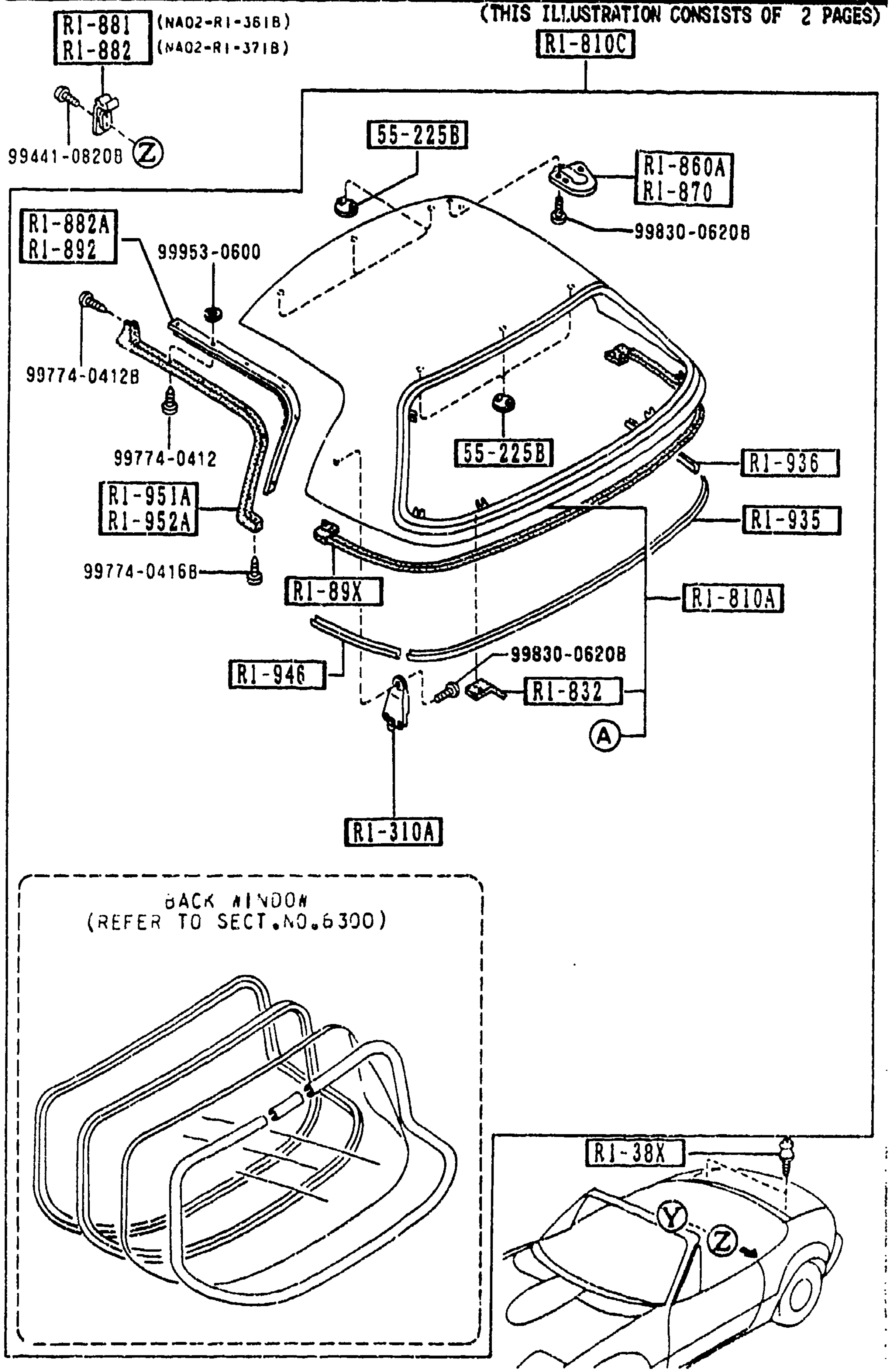
R1-881 (NA02-R1-361B)
R1-882 (NA02-R1-371B)
99441-08208
Z
R1-810C
55-225B
R1-860A
R1-870
99830-06208
R1-882A
R1-892
99953-0600
99774-04128
99774-0412
R1-951A
R1-952A
99774-04168
55-225B
R1-936
R1-935
R1-89X
R1-810A
99830-06208
R1-946
R1-832
A
R1-310A
BACK WINDOW
(REFER TO SECT.NO.6300)
R1-38X
Y
Z

6330 -2 SUNROOF

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-R1-272	1				0601-
R1-281		WELT,SEAMING-SOFT TOP			
NA01-R1-281	1				
R1-310A		LOCK,DETACHABLE TOP			
NA02-R1-310A A (NA02-R1-310B)	2				-0101
NA02-R1-310B	2	OPTION, (W/DETACHABLE TOP-B. COLOR,)			0101-
R1-331A		HANDLE,SOFT TOP			
NA01-R1-331	1				
R1-38X		HOOK,SOFT TOP-REAR DECK			
NA01-R1-38XA A (NA01-R1-38XB)	2				-9801
NA01-R1-38XB	2				9801-
R1-381		PLATE(R),HOOK-REAR DECK			
NA01-R1-381A C (NA01-R1-381B)	1				-9609
NA01-R1-381B	1				9609-
R1-382		SCREW,HOOK-REAR DECK			
NA01-R1-382 A (NA01-R1-382A)	2				-9609
NA01-R1-382A	2				9609-
R1-391		PLATE(L),HOOK-REAR DECK			
NA01-R1-391A C (NA01-R1-391B)	1				-9609
NA01-R1-391B	1				9609-
R1-411		RETAINER'A'(R),WTHSTP			
NA01-R1-461	1				
R1-412		RETAINER'B'(R),WTHSTP			
NA01-R1-462	1				
R1-413		RETAINER'C'(R),WTHSTP			
NA01-R1-463	1				

NA01-R1-381A
C NA01-R1-381B
NA01-R1-382A

9609 NA35**-108360
9801 NA35**-126490
0101 NA35**-133591
0601 NA35**-154752

6330 SUNROOF

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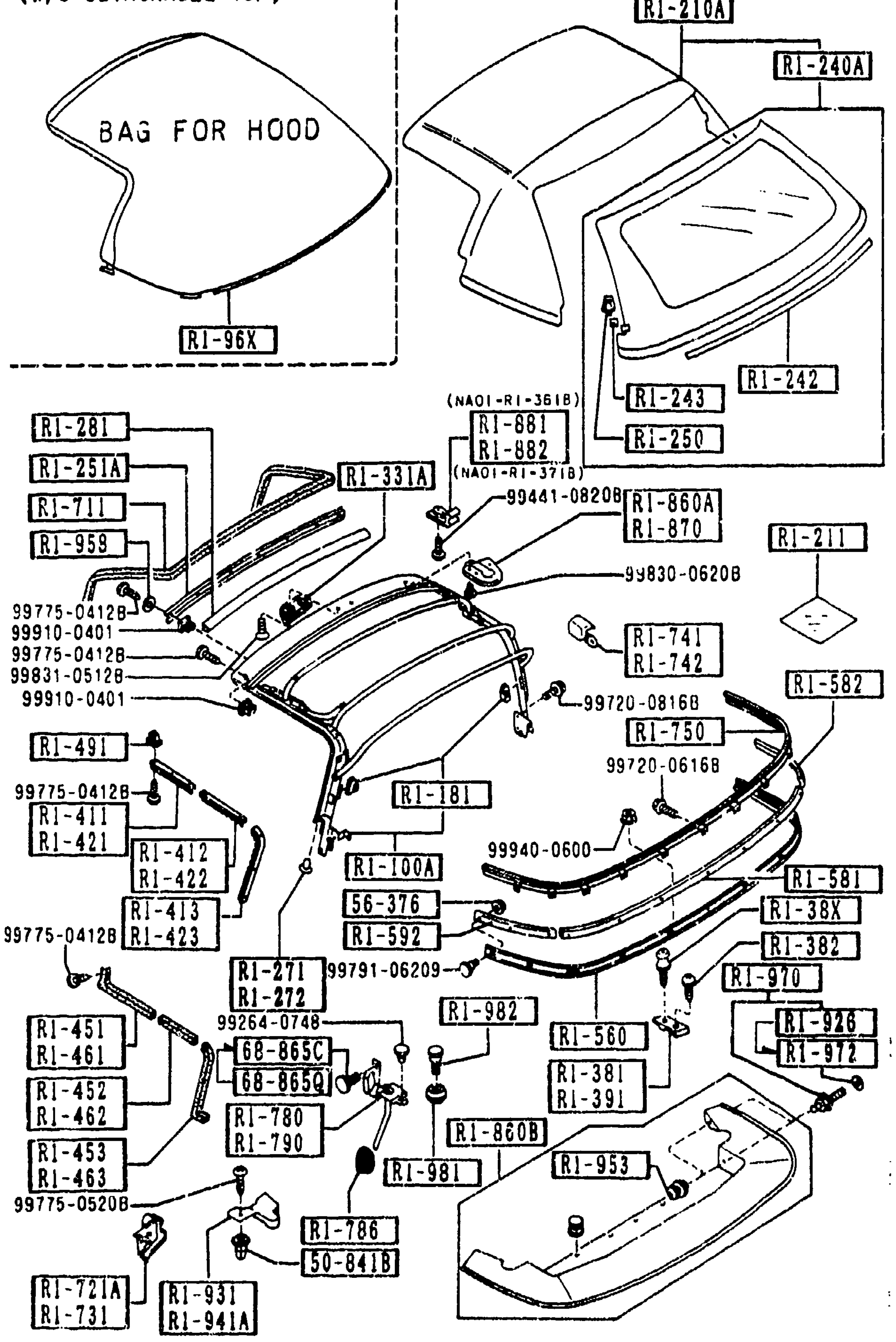
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R1-240A
R1-242
R1-243
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99775-05208
R1-786
50-841B
R1-721A
R1-731
R1-931
R1-941A

6330 -3 SUNROOF

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
R1-421 NA01-R1-471	1	RETAINER'A'(L),WTHSTP			
R1-422 NA01-R1-472	1	RETAINER'B'(L),WTHSTP			
R1-423 NA01-R1-473	1	RETAINER'C'(L),WTHSTP			
R1-451 NA01-R1-411B	1	WTHSTP NO.1(R),LINK			
R1-452 NA01-R1-412B	1	WTHSTP NO.2(R),LINK			
R1-453 NA01-R1-413B	1	WTHSTP NO.3(R),LINK			
R1-461 NA01-R1-421B	1	WTHSTP NO.1(L),LINK			
R1-462 NA01-R1-422B	1	WTHSTP NO.2(L),LINK			
R1-463 NA01-R1-423B	1	WTHSTP NO.3(L),LINK			
R1-491 NA01-R1-491	16	GROMMET,SCREW-RETAINER			
R1-560 NA01-R1-560C	1	RAIL,RAIN-SOFT TOP REAR			
R1-581 NA01-R1-581B	1	PLATE(C),SET-TOP FABRIC			
R1-582 NA01-R1-582A	1	PLATE(R),SET-TOP FABRIC			
R1-592 NA01-R1-592A	1	PLATE(L),SET-TOP FABRIC			

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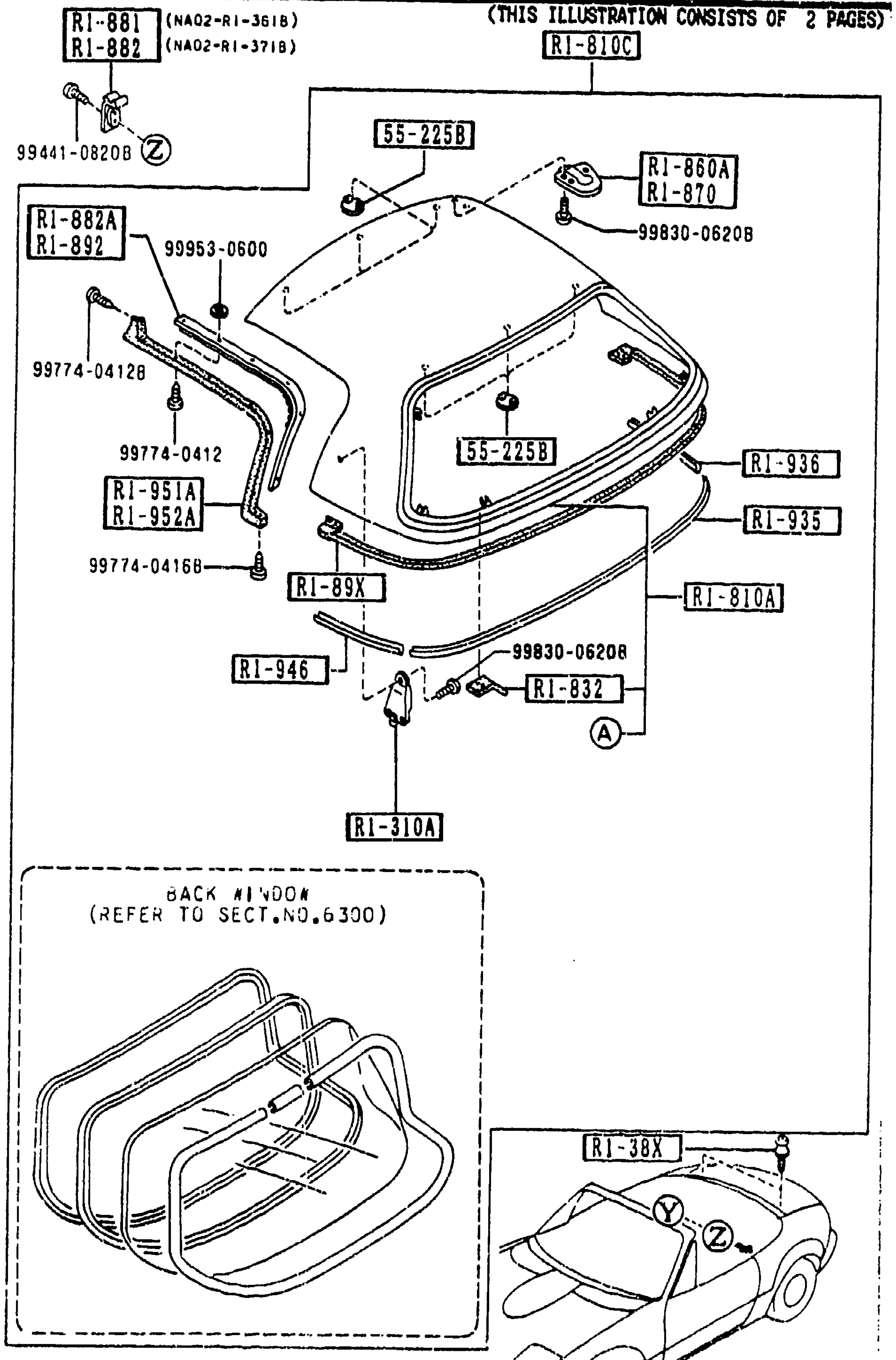
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R1-882
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(NA02-R1-371B)
R1-810C
99441-0820B
Z
55-225B
R1-860A
R1-870
99830-0620B
R1-882A
R1-892
99953-0600
99774-0412B
99774-0412
55-225B
R1-936
R1-951A
R1-952A
R1-935
99774-0416B
R1-89X
R1-810A
R1-946
99830-0620B
R1-832
A
R1-310A
BACK WINDOW
(REFER TO SECT.NO.6300)
R1-38X
Y
Z

AUNA01

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
R1-711		WTHSTP,FRONT HEADER			
NA01-R1-711B	1				
R1-721A		WTHSTP(R),CAB SIDE			
NA01-R1-721A A (NA01-R1-721B)	1				-0116
NA01-R1-721B	1				0116-
R1-731		WTHSTP(L),CAB SIDE			
NA01-R1-731A A (NA01-R1-731B)	1				-0116
NA01-R1-731B	1				0116-
R1-741		PROTR(R),MOULD-BELT LINE			
NA01-R1-741A A (NA01-R1-741B)	1				-9601
NA01-R1-741B	1				9601-
R1-742		PROTR(L),MOULD-BELT LINE			
NA01-R1-742A A (NA01-R1-742B)	1				-9601
NA01-R1-742B	1				9601-
R1-750		MOULD,BELTLINE-REAR			
NA01-R1-750B A (NA01-R1-750C)	1				-9601
NA01-R1-750C AN(NA01-R1-750D)	1				9601-0403
NA01-R1-750D	1				0403-
R1-780		COVER(R),DRAIN-SOFT TOP			
NA01-R1-780C	1				
R1-786		GROMMET,DRAIN HOSE-TOP			
NA01-R1-786 AN(NA01-R1-786A)	2				-9420
NA01-R1-786A	2				9420-
R1-790		COVER(L),DRAIN-SOFT TOP			
NA01-R1-790C	1				
R1-810A		PANEL,ROOF			

9420 NA35**-101198
9601 NA35**-106797
0116 NA35**-134600
0403 NA35**-146744

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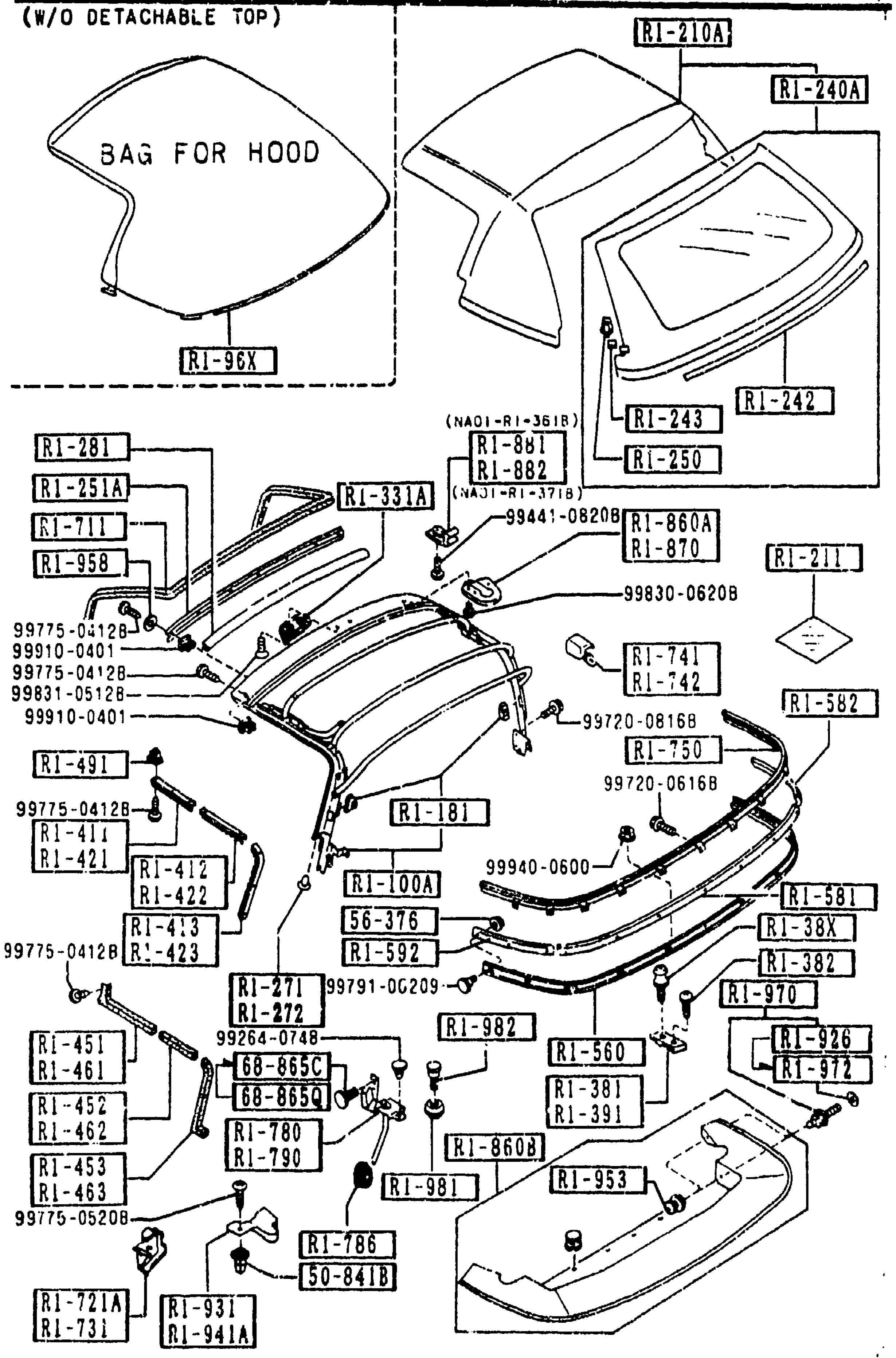
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R1-210A
R1-240A
R1-242
R1-243
R1-250
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R1-881
R1-882
(NA01-R1-371B)
99441-0820B
R1-860A
R1-870
R1-211
99830-0620B
R1-281
R1-251A
R1-711
R1-958
R1-331A
99775-0412B
99910-0401
99775-0412B
99831-0512B
99910-0401
R1-741
R1-742
99720-0816B
R1-750
R1-582
R1-491
99775-0412B
R1-411
R1-421
R1-181
99720-0616B
R1-412
R1-422
R1-100A
99940-0600
R1-581
R1-413
R1-423
56-376
R1-592
R1-38X
R1-382
99775-0412B
R1-271
R1-272
99791-06209
R1-970
R1-982
R1-560
R1-926
R1-972
99264-0748
68-865C
68-865Q
R1-451
R1-461
R1-381
R1-391
R1-452
R1-462
R1-780
R1-790
R1-860B
R1-453
R1-463
R1-981
R1-953
99775-0520B
R1-786
50-841B
R1-721A
R1-731
R1-931
R1-941A

(CONT'D)

6330 -5 SUNROOF

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA02-R1-82X A (NA02-R1-82XA)	1				-0101
NA02-R1-82XA	1	OPTION, (W/DETACHABLE TOP-B. COLOR.)			0101-
NA03-R1-82X	1	OPTION, (W/DETACHABLE TOP,BLUE)			0401-
NA04-R1-82X	1	OPTION, (W/DETACHABLE TOP,WHITE)			0401-
R1-810C		ROOF,DETACHABLE TOP			
NA02-R1-810C A (NA02-R1-810E)	1				-0101
NA02-R1-810E AN(NA02-R1-810F)	1				0101-0201
NA02-R1-810F	1	OPTION, (W/DETACHABLE TOP-B. COLOR.)			0201-
NA03-R1-810	1	OPTION, (W/DETACHABLE TOP,BLUE)			0401-
NA04-R1-810	1	OPTION, (W/DETACHABLE TOP,WHITE)			0401-
R1-832		PLATE,CUSHION-D. TOP			
NA01-R1-832A	2				
R1-860A		LOCK(R),TOP			
NA01-R1-310A A (NA01-R1-310B)	1				-0101
NA01-R1-310B	1				0101-
R1-860B		BOOT,TOP			
NA01-R1-960B	1				
66		NA0 BLACK			
R1-870		LOCK(L),TOP			
NA01-R1-320A A (NA01-R1-320B)	1				-0101
NA01-R1-320B	1				0101-
R1-881		STRIKER(R),LOCK-TOP			
NA01-R1-361A	1				-0201

0101 NA35**-133591
0201 NA35**-137180
0401 NA35**-146561

6330 SUNROOF (2/2)

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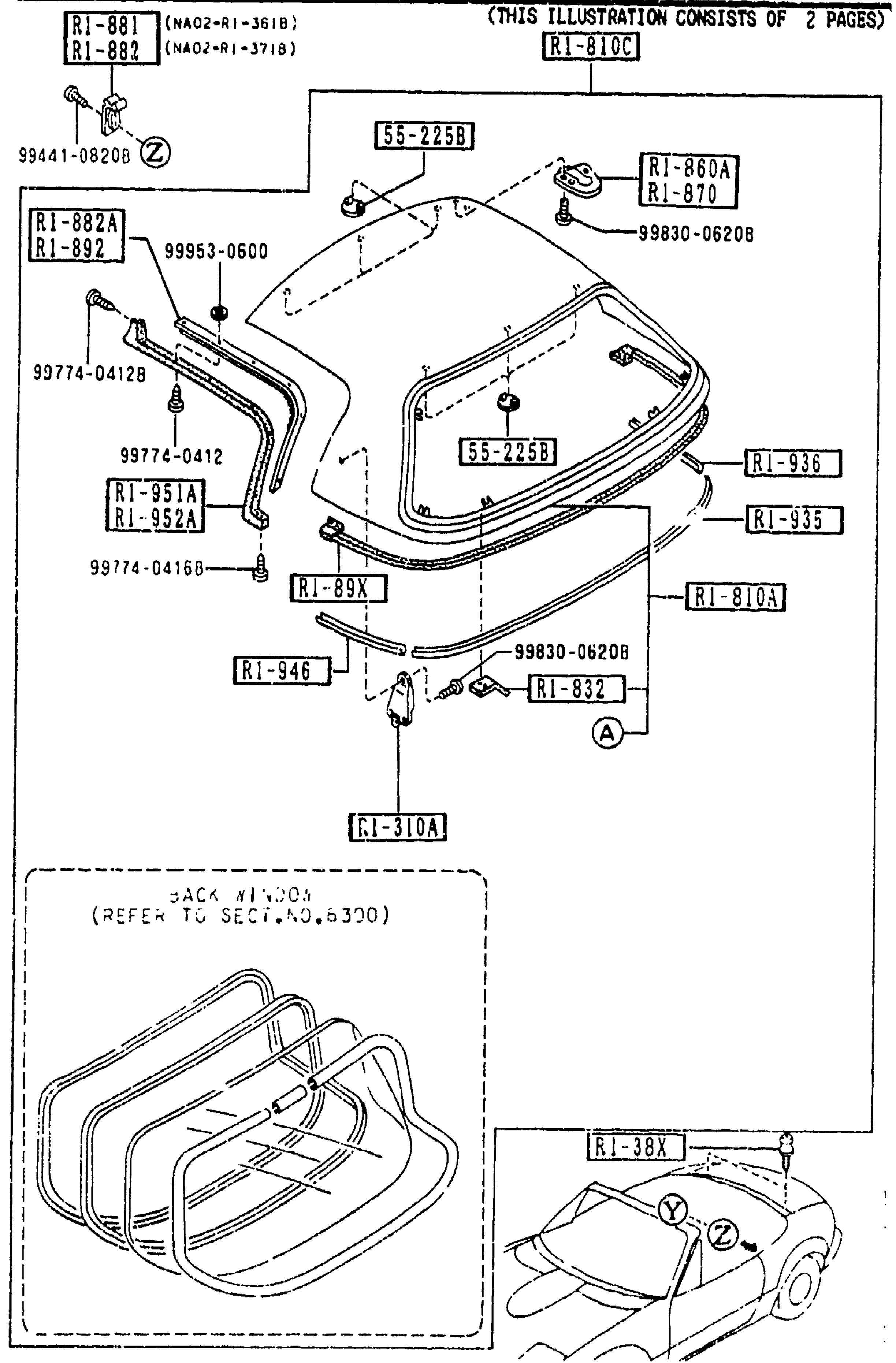
R1-881 (NA02-R1-361B)
R1-882 (NA02-R1-371B)
R1-810C
99441-08208
Z
55-225B
R1-860A
R1-870
99830-06208
R1-882A
R1-892
99953-0600
99774-04128
99774-0412
55-225B
R1-936
R1-951A
R1-952A
R1-935
99774-04168
R1-89X
R1-810A
99830-06208
R1-946
R1-832
A
R1-310A
BACK WINDOW
(REFER TO SECT.NO.6330)
R1-38X
Y
Z

AUNA01

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D A (NA01-R1-361B)					
NA02-R1-361A A (NA02-R1-361B)	1				-0201
NA01-R1-361B	1				0201-
NA02-R1-361B	1				0201-
R1-882		STRIKER(L),LOCK-TOP			
NA01-R1-371A A (NA01-R1-371B)	1				-0201
NA02-R1-371A A (NA02-R1-371B)	1				-0201
NA01-R1-371B	1				0201-
NA02-R1-371B	1				0201-
R1-882A		RETAINER(R),WTHSTP-D.TOP			
NA01-R1-882	1				
R1-89X		WEATHERSTRIP,D.TOP-REAR			
NA01-R1-89XA	1				
R1-892		RETAINER(L),WTHSTP-D.TOP			
NA01-R1-892	1				
R1-926		WASHER,HOOK-HOOD COVER			
FB67-R1-926A	4				-9701
R1-931		COVER(R),BELT LINE			
NA01-R1-931A	1				
R1-935		PROTECTOR(C),EDGE-D.TOP			
NA01-R1-935A	1				
R1-936		PROTECTOR(R),EDGE-D.TOP			
NA01-R1-936	1				
R1-941A		COVER(L),BELT LINE			
NA01-R1-941A	1				
R1-946		PROTECTOR(L),EDGE-D.TOP			
NA01-R1-946	1				

9701 NA35**-111969
0201 NA35**-137180

6330 SUNROOF (1/2)
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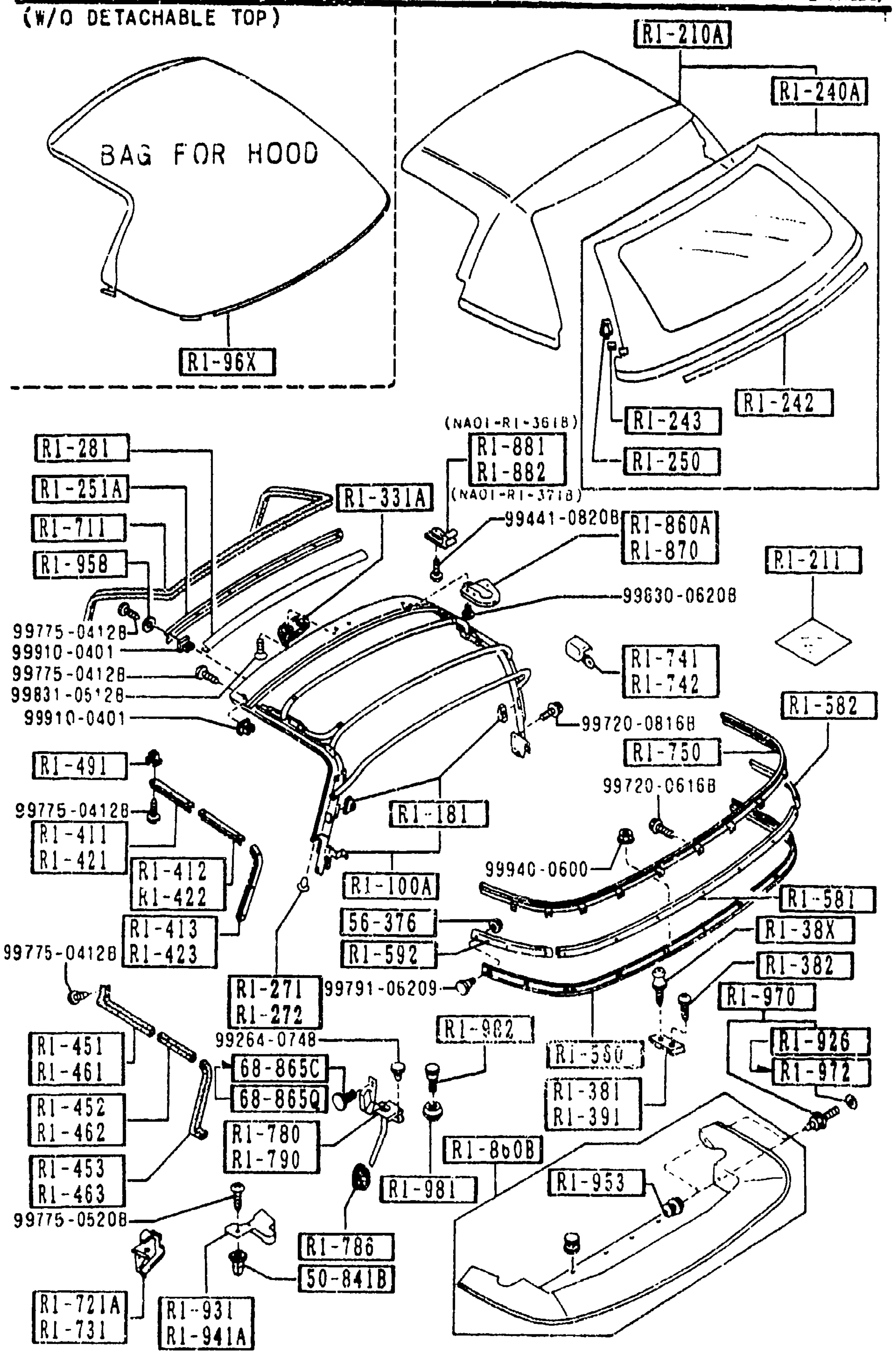
(W/O DETACHABLE TOP)
BAG FOR HOOD
R1-96X
R1-210A
R1-240A
R1-242
R1-243
R1-250
R1-281
R1-251A
R1-711
R1-958
99775-04128
99910-0401
99775-04128
99831-05128
99910-0401
R1-331A
(NA01-R1-361B)
R1-881
R1-882
(NA01-R1-371B)
99441-08208
R1-860A
R1-870
99830-06208
R1-211
R1-741
R1-742
99720-08168
R1-582
R1-750
99720-06168
R1-491
99775-04128
R1-411
R1-421
R1-181
R1-412
R1-422
R1-100A
99940-0600
R1-413
R1-423
56-376
R1-592
R1-581
R1-38X
99775-04128
R1-382
R1-271
R1-272
99791-06209
R1-970
99264-0748
R1-982
R1-580
R1-926
R1-972
R1-451
R1-461
68-865C
68-865Q
R1-381
R1-391
R1-452
R1-462
R1-780
R1-790
R1-860B
R1-453
R1-463
R1-981
R1-953
99775-05208
R1-786
50-841B
R1-721A
R1-731
R1-931
R1-941A

(CONT' D)

6330 -7 SUNROOF

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
R1-951A		WTHSTP(R),ROOF PANEL			
NA01-R1-881B	1				
R1-952A		WTHSTP(L),ROOF PANEL			
NA01-R1-891B	1				
R1-953		HOOK,HOOD-REAR CORNER			
B235-R1-953	4				
R1-958		WASHER,HOOK'A'&'B'			
B235-R1-958A	7				
R1-96X		COVER,TOP FABRIC			
NA01-R1-96XA A (NA01-R1-96XB)	1				-9C01
NA01-R1-96XB	1				9C01-
R1-970		HOOK,REAR DECK			
NA01-R1-970 A (NA01-R1-970A)	4				-9701
NA01-R1-970A	4				9701-
R1-972		WASHER,HOOK'A'			
NA01-R1-926	4				9701-
R1-981		STOPPER,SOFT TOP			
NA01-R1-981A	2				
R1-982		BOLT,STOPPER-SOFT TOP			
NA01-R1-982A	2				
50-841B		GROMMET,SCREW			
H260-50-841	2				
55-225B		COVER,HOLE			
G030-55-225	6				
00		NA0 NA1 BLACK			
56-376		NUT,SELF LOCK			
B001-56-376	13				

9701 NA35**-111969
9C01 NA35**-130310

6330 SUNROOF (2/2)

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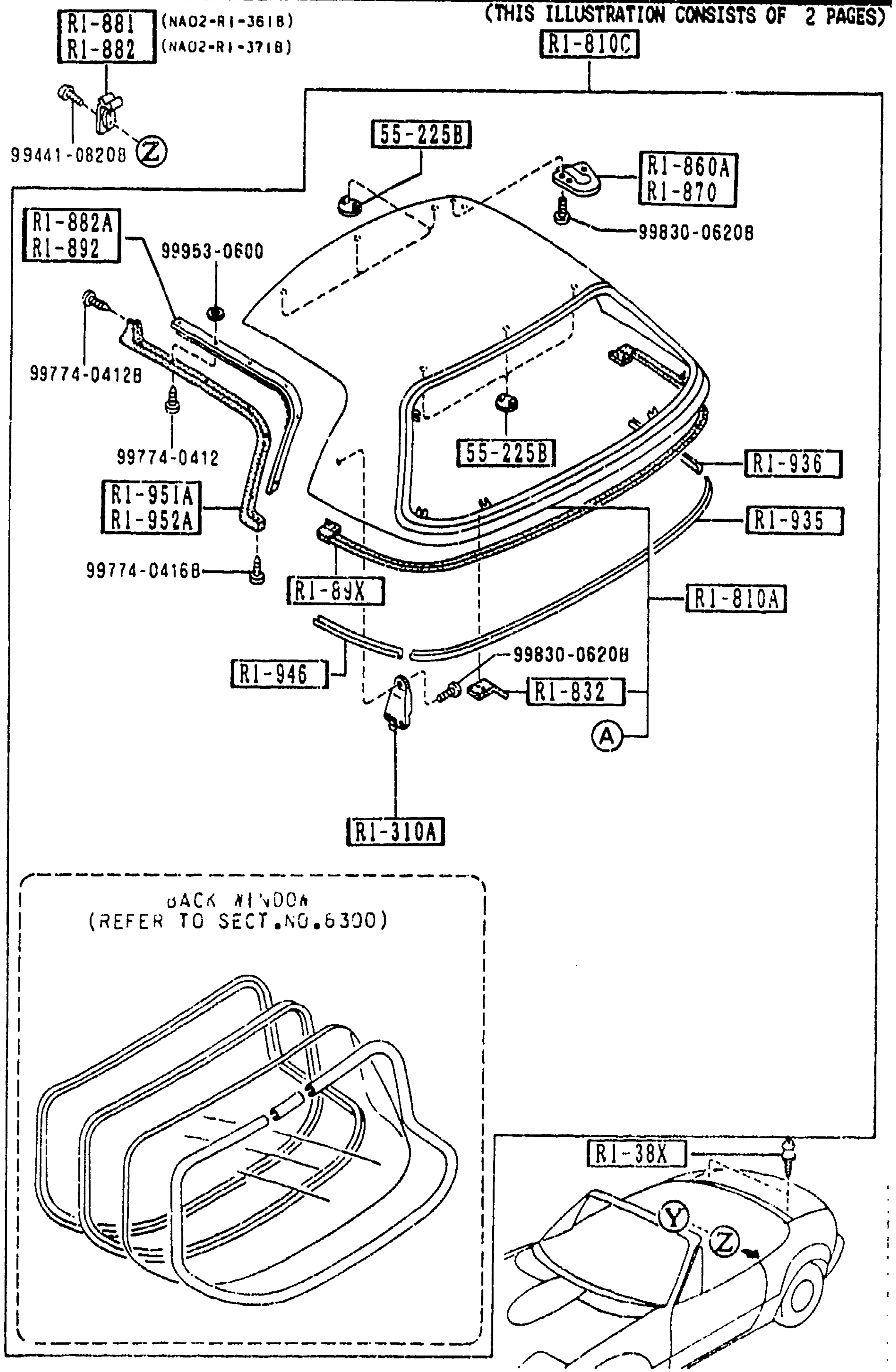
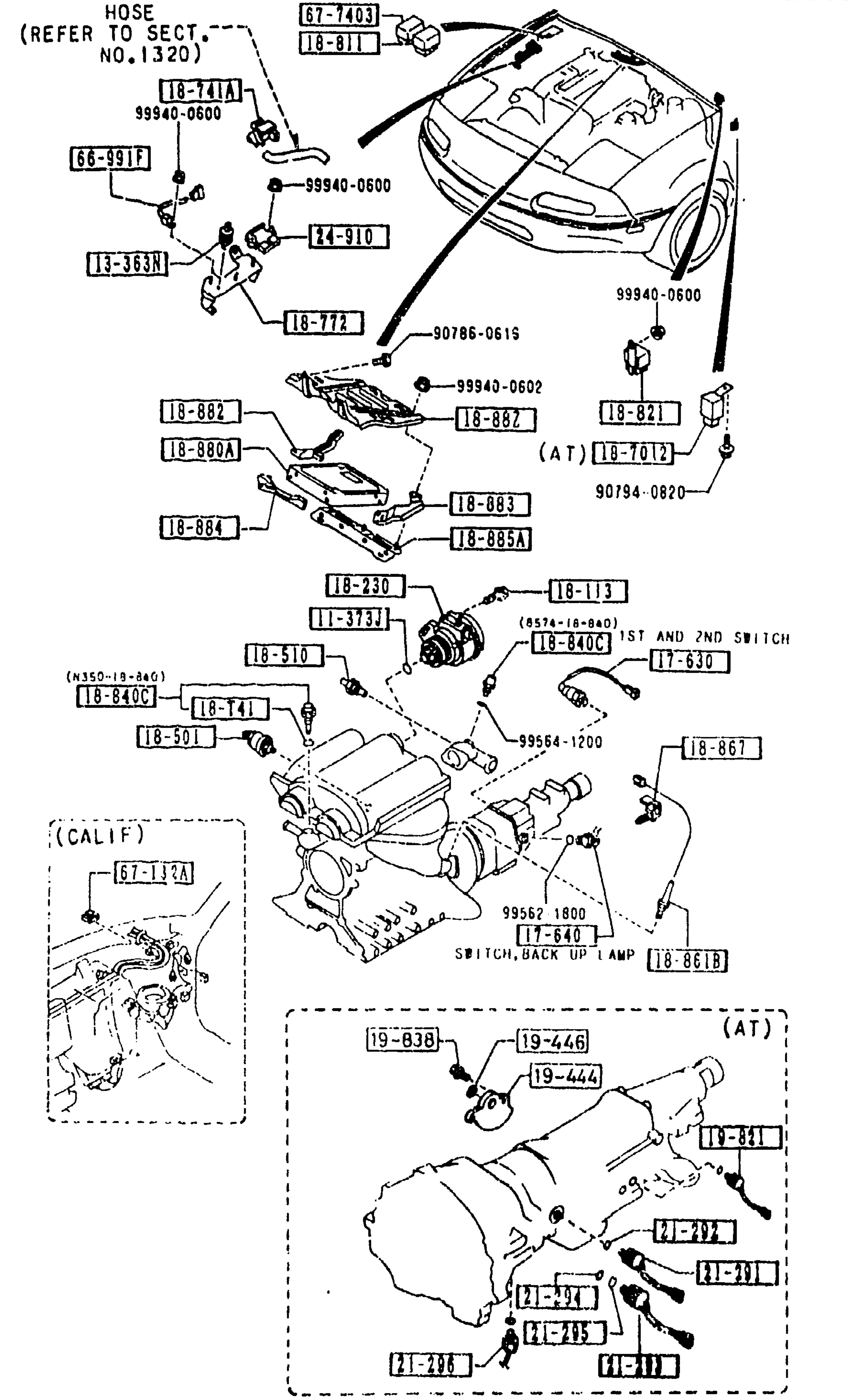

R1-881 (NA02-R1-361B)
R1-882 (NA02-R1-371B)
99441-08208
Z
R1-810C
55-225B
R1-860A
R1-870
99830-06208
R1-882A
R1-892
99953-0600
99774-04128
99774-0412
R1-951A
R1-952A
99774-04168
55-225B
R1-936
R1-935
R1-89X
R1-810A
R1-946
99830-06208
R1-832
A
R1-310A
BACK WINDOW
(REFER TO SECT.NO.6300)
R1-38X
Y
Z

AUNA01

6330 -8 * SUNROOF

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-865C		FASTENER			
GU32-68-865A	2				9301-
00		NA0 BLACK			
68-865Q		FASTENER			
GJ21-68-885A AN(GJ21-68-885B)	2				-9526
00		NA0 BLACK			
GJ21-68-885B	2				9526-9801
00		NA0 BLACK			

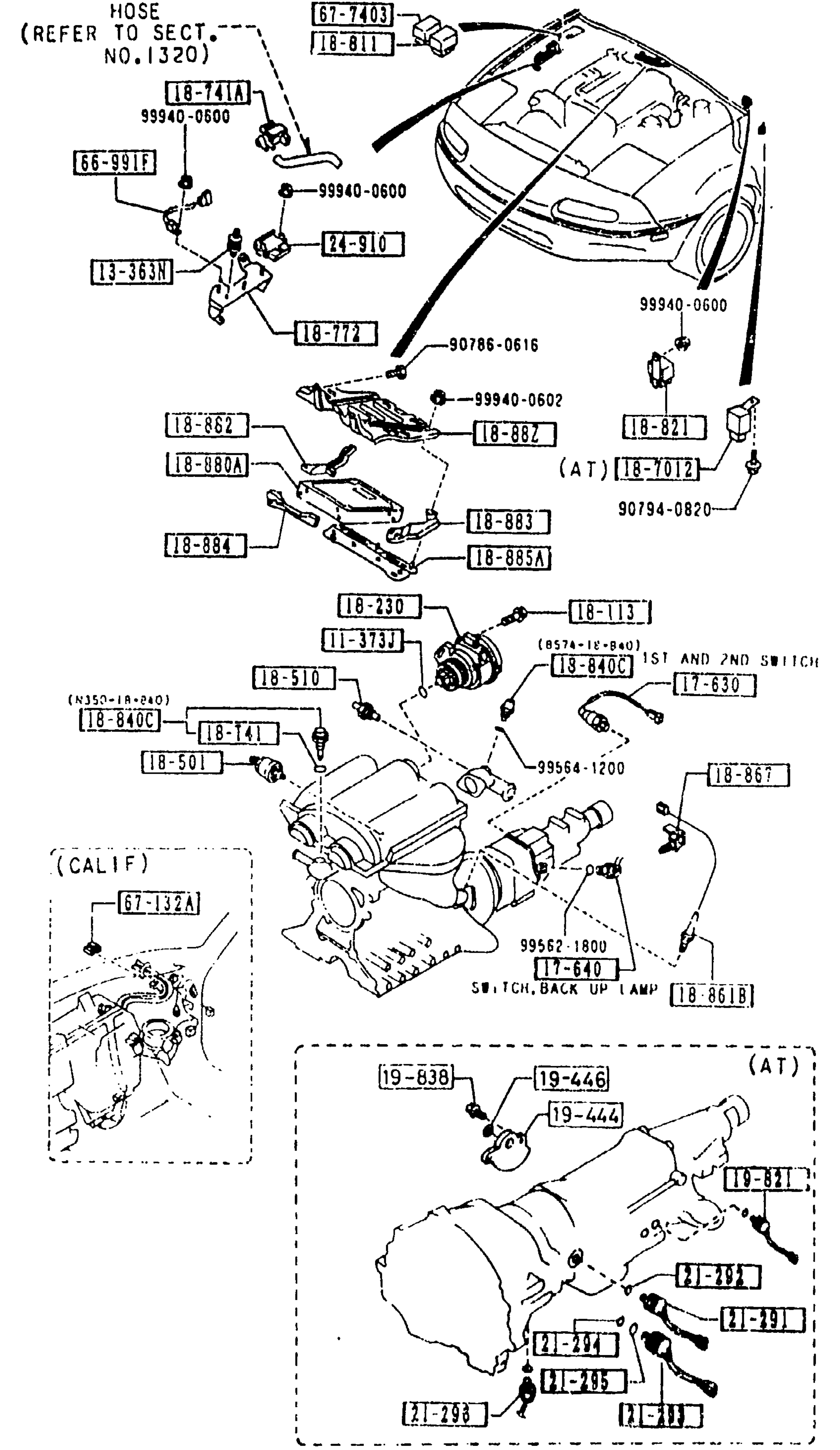
9526 NA35**-105742
9801 NA35**-116316


HOSE
(REFER TO SECT.
NO.1320)
67-7403
18-811
18-741A
99940-0600
66-991F
99940-0600
24-910
13-363N
18-772
99940-0600
90786-0615
99940-0602
18-882
18-882
18-880A
18-821
(AT) 18-7012
90794-0820
18-883
18-884
18-885A
18-230
18-113
11-373J
(8574-18-840)
18-840C
1ST AND 2ND SWITCH
17-630
18-510
(N350-18-840)
18-840C
18-T41
18-501
99564-1200
18-867
(CALIF)
67-132A
99562-1800
17-640
SWITCH,BACK UP LAMP
18-861B
(AT)
19-838
19-446
19-444
19-821
21-292
21-291
21-294
21-295
21-296
21-311

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
11-373J		RING,'O'			
99541-03801	1				
13-363N		RUBBER,MOUNTING			
0222-13-363	1				
17-630		SWITCH			
8118-17-640A A (8118-17-640B)	1				-9501
8118-17-640B	1	(MT)			9501-
17-640		SWITCH,BACK UP LAMP			
1391-17-640	1	(MT)			-9831
M506-17-640	1	(MT)			9831-
18-T41		RING,'O'-WATER THERMO SW.			
F8B5-18-T41	1				
18-113		BOLT			
B366-18-1A5	1				
18-230		SENSOR,CRANK ANGLE			
B61P-18-230	1				
18-501		SWITCH,OIL PRESSURE			
B61P-18-501	1				
18-510		UNIT,HEAT GAUGE			
B541-18-51X	1				
18-7012		UNIT,CONTROL			
B64J-18-780A A (B64J-18-780B)	1				-0401
B64J-18-780B	1	(AT)			0401-
18-741A		VALVE,THREE WAY			
JE16-18-741	1	NIHON OIL SEAL			
18-772		BRACKET,IGNITER			
B61P-18-2F0A	1				-9A01

9501 NA35**-102613
9831 NA35**-119088
9A01 NA35**-122908
0401 NA35**-146561

6600 SWITCHES & RELAYS (ENGINE)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67-7403
18-811
18-741A
99940-0600
66-991F
99940-0600
24-910
13-363N
18-772
99940-0600
90786-0616
99940-0602
18-862
18-88Z
18-880A
18-821
(AT) 18-7012
90794-0820
18-883
18-884
18-885A
18-230
18-113
11-373J
(8574-18-840)
18-840C
1ST AND 2ND SWITCH
18-510
17-630
(N350-18-840)
18-840C
18-741
18-501
99564-1200
18-867
(CALIF)
67-132A
99562-1800
17-640
SWITCH,BACK UP LAMP
18-861B
(AT)
19-838
19-446
19-444
19-821
21-292
21-291
21-294
21-295
21-298
21-293

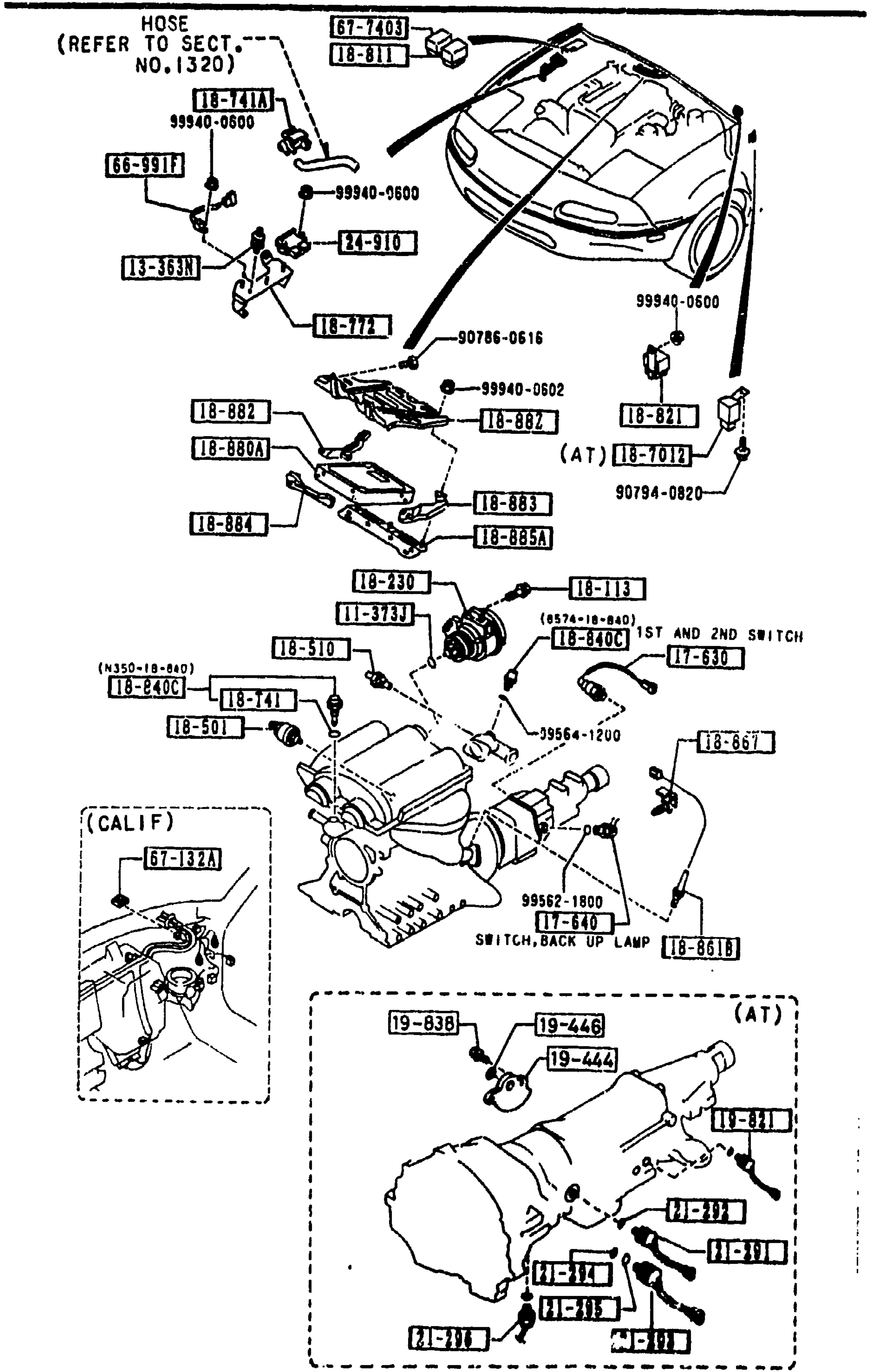
6600 -2 SWITCHES & RELAYS (ENGINE)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B61P-18-2F0B	1				9A01-
18-811		RELAY,MAIN			
B658-18-811	1				
18-821		RELAY,CIRCUIT OPEN			
N236-18-821	1				
18-840C		SENSOR,WATER TEMP.			
N350-18-840	1	DENSO			
8574-18-840	1	NIHON THERMOSTAT			
18-861B		SENSOR,OXYGEN			
B61R-18-861A	1				
18-867		CLIP			
FE30-18-867A	2				
18-88Z		COVER,CONTROL UNIT			
B61P-18-889A	1				
18-880A		CONTROL UNIT,E.G.I.			
B61P-18-881A	1	(MT)			
B64J-18-881	1	(AT)			
18-882		BRACKET,CONTROL UNIT			
B61P-18-882	1				
18-883		BRACKET,CONTROL UNIT			
B61P-18-883	1				
18-884		BRACKET,CONTROL UNIT			
B61P-18-884	1				
18-885A		BRACKET,CONTROL UNIT			
B61P-18-885	1				
19-444		SWITCH,INHIBITOR			
BU55-19-444A	1	(AT)			

9A01 NA35MM-122908

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS
2-E05	5000	FRONT BUMPER
2-H05	5010	REAR BUMPER
2-J05	5030	WINDOW MOULDING & COWL GRILLES
2-L05	5100	HEAD LAMPS
2-M05	5103	HEAD LAMP RETRACTORS
2-D06	5105	FRONT COMBINATION LAMPS
2-F06	5110	REAR COMBINATION LAMPS
2-I06	5120	LICENSE LAMPS
2-J06	5180	REAR FINISHER
2-L06	5230	BONNET
2-N06	5260	TRUNK LID
2-D07	5310	BODY PANELS (FRONT)
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)
2-H07	5330	BODY PANELS (DASH & COWL PANEL)
2-I07	5340	BODY PANELS (SIDE)
2-C08	5370	BODY PANELS (FLOOR)
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)
2-G08	5390	FLOOR ATTACHMENTS
2-C09	5500	DASHBOARD EQUIPMENTS
2-E09	5520	METER HOOD
2-F09	5530	SPEEDOMETER CABLE
2-G09	5540	METER COMPONENTS
2-I09	5560	DASHBOARD & RELATED PARTS
2-L09	5570	CONSOLE
2-C10	5580	VENTILATOR
2-D10	5700	SEATS
2-K10	5790	SEAT BELTS
2-L10	5800	FRONT DOORS
2-C11	5830	FRONT DOOR MECHANISMS
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS
2-C12	6100	HEATER
2-D12	6110	HEATER UNIT COMPONENTS
2-E12	6115	HEATER CONTROLS COMPONENTS
2-F12	6120	HEATER BLOWER COMPONENTS
2-G12	6130	AIR CONDITIONER
2-K12	6135	O RING SET,PIPING
2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)
2-N12	6150	COOLING UNIT (AIR CONDITIONER)
2-C13	6300	WINDOW GLASSES
2-D13	6330	SUNROOF
2-M13	6600	SWITCHES & RELAYS (ENGINE)
2-D14	6610	DASHBOARD SWITCHES
2-E14	6611	COMBINATION SWITCH
2-F14	6630	RELAYS & UNIT (BODY)
2-G14	6635	DOOR SWITCH & HORNS
2-H14	6640	AUTO CRUISE CONTROL SYSTEM
2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)
2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)
2-L14	6700	WIRING HARNESSES(FRONT & REAR)
2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)
2-D15	6702	WIRING HARNESSES(DASHBOARD)
2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)
2-F15	6704	WIRING HARNESS CLAMPS
2-I15	6720	WINDSHIELD WASHER
2-K15	6730	WINDSHIELD WIPERS
2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)
2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS
2-C16	6840	TRIMS & SCUFF PLATES
2-E16	6860	FLOOR MATS & PADS
2-G16	6870	SERVICE TOOLS
2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS
2-J16	6930	CAUTION PLATES & LABELS
2-L16	7250	QUARTER WINDOW & TRIMS
3-C03	7900	ACCESSORIES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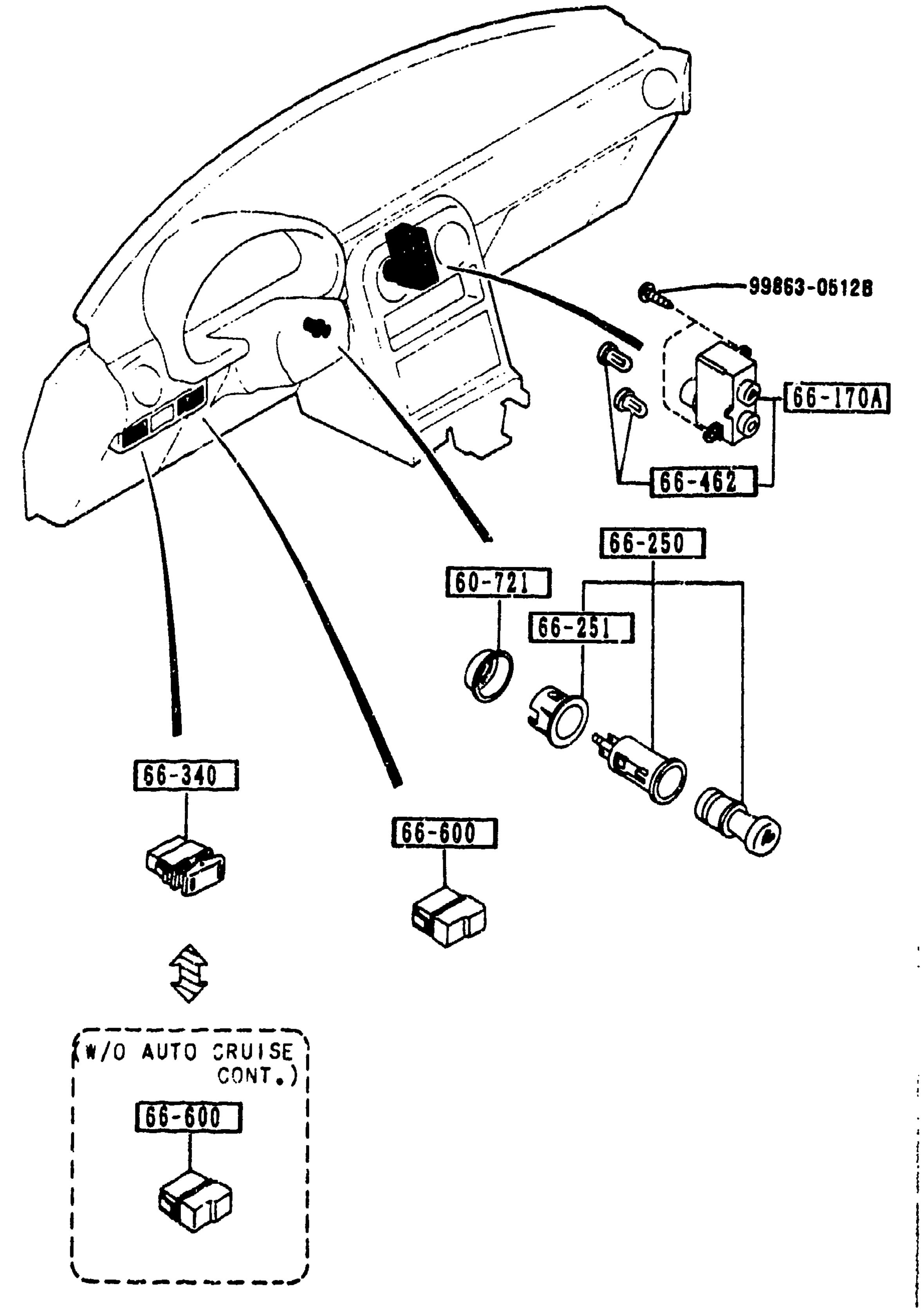
18-811
18-741A
99940-0600
66-991F
99940-0600
24-910
13-363N
18-772
99940-0600
90786-0616
99940-0602
18-882
18-882
18-821
18-880A
(AT) 18-7012
18-883
90794-0820
18-884
18-885A
18-230
18-113
11-373J
(B574-18-840)
18-840C
1ST AND 2ND SWITCH
18-510
17-630
(N350-18-840)
18-840C
18-741
18-501
99564-1200
18-867
(CALIF)
67-132A
99562-1800
17-640
SWITCH,BACK UP LAMP
18-861B
(AT)
19-838
19-446
19-444
19-821
21-292
21-291
21-294
21-295
21-296
21-293

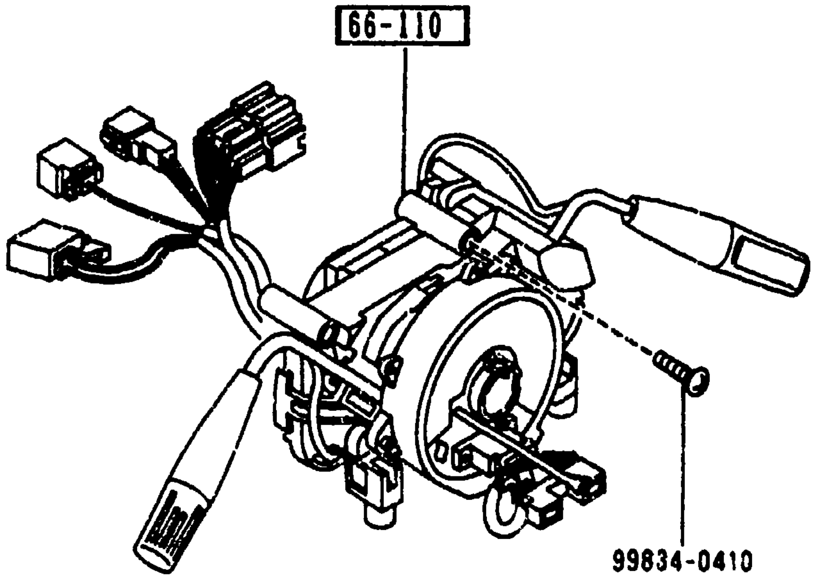
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-446 0338-19-446	1	RING,'O' (AT)			
19-821 BU55-19-821	1	SOLENOID,DOWN SHIFT (AT)			
19-838 1758-19-838	2	BOLT-HEX,HD WASHER			
21-291 BU55-21-2J1	1	SWITCH,OIL PRESSURE (AT)			
21-292 BU01-21-292A	1	RING,'O' (AT)			
21-293 BU55-21-2J3	1	SOLENOID,OVER DRIVE (AT)			
21-294 BU01-21-294	1	RING,'O' (AT)			
21-295 BU01-21-295	1	RING,'O' (AT)			
21-296 BU55-21-3A5	1	SOLENOID,LOCK UP CONTROL (AT)			
24-910 B61P-18-251	1	IGNITER SET			
66-991F B376-66-991	1	CONDENSER			
67-132A HB23-67-741	1	CONNECTOR,SHORT (CALIF.)			
67-7403 LA10-67-740	1	RELAY,N.O. 10A			

6610 DASHBOARD SWITCHES


99863-0512B
66-170A
66-462
66-250
60-721
66-251
66-340
66-600
(W/O AUTO CRUISE CONT.)
66-600

6610 -1 * DASHBOARD SWITCHES

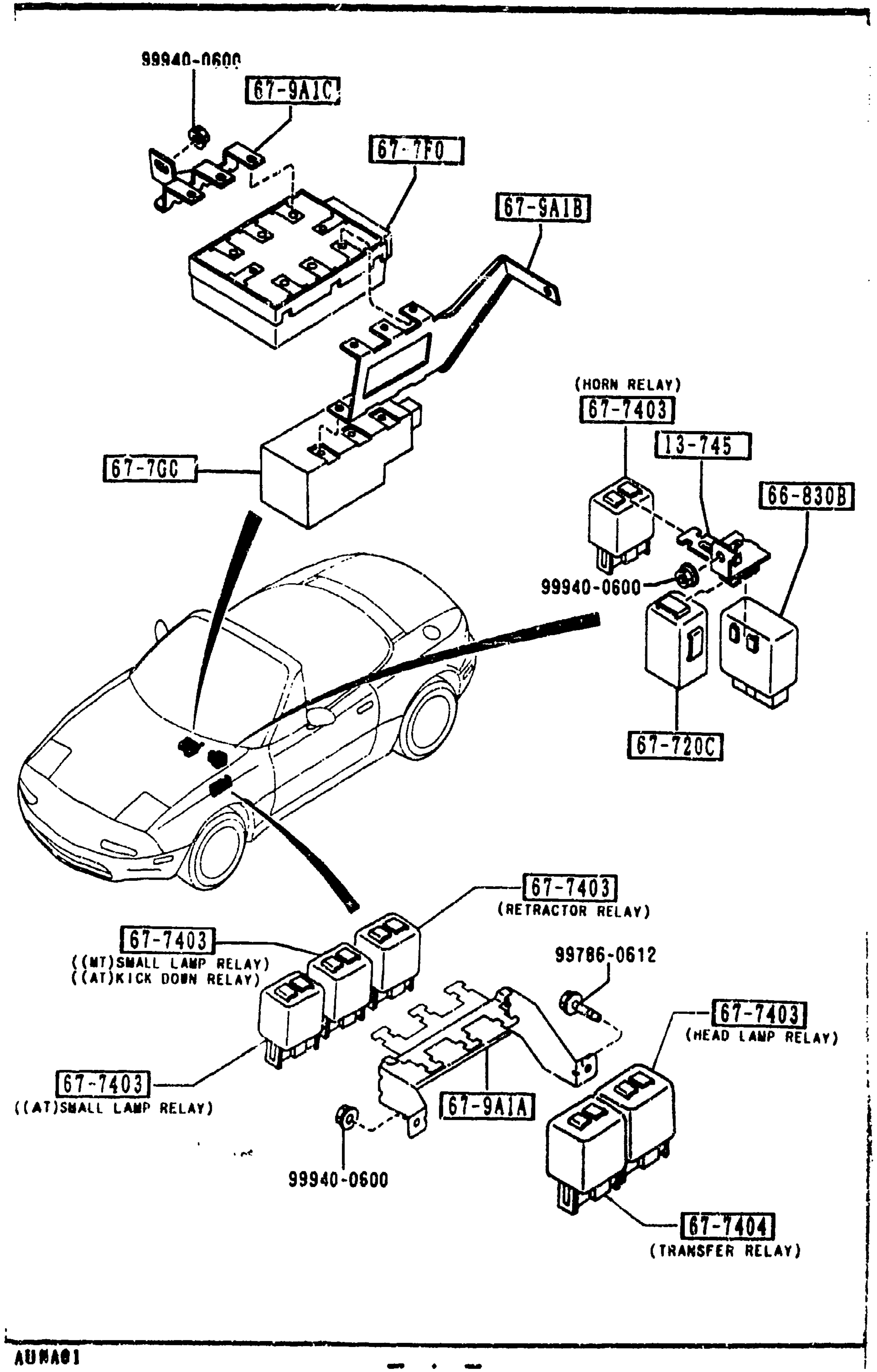
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
60-721		PROTECTOR			
B092-66-241A	1				
66-170A		SWITCH(R),CLUSTER			
NA01-66-170	1				
66-250		LIGHTER,CIGAR			
B150-66-250	1				
66-251		RING,ILLUMINATION			
B001-66-251	1				
66-340		SWITCH,MAIN			
NA01-66-340A	1	PKG-OPT, (W/AUTO CRUISE CONT)			
66-462		BULB'B',SWITCH-RR DEFOGER			
NA01-66-462	2				
66-600		COVER,HOLE			
B481-55-225	1	PKG-OPT, (W/AUTO CRUISE CONT)			
	2	BASE, (W/O AUTO CRUISE CONT.)			



Component parts of COMBINATION SWITCH are under establishment now. Parts numbers will be informed you by the Parts Engineering Change Bulletin as soon as established.

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-110		SWITCH,COMBINATION			
NA01-66-120A	1	BASE, (W/O AUTO CRUISE CONT.)			
NA02-66-120A	1	PKG-OPT, (W/AUTO CRUISE CONT)			

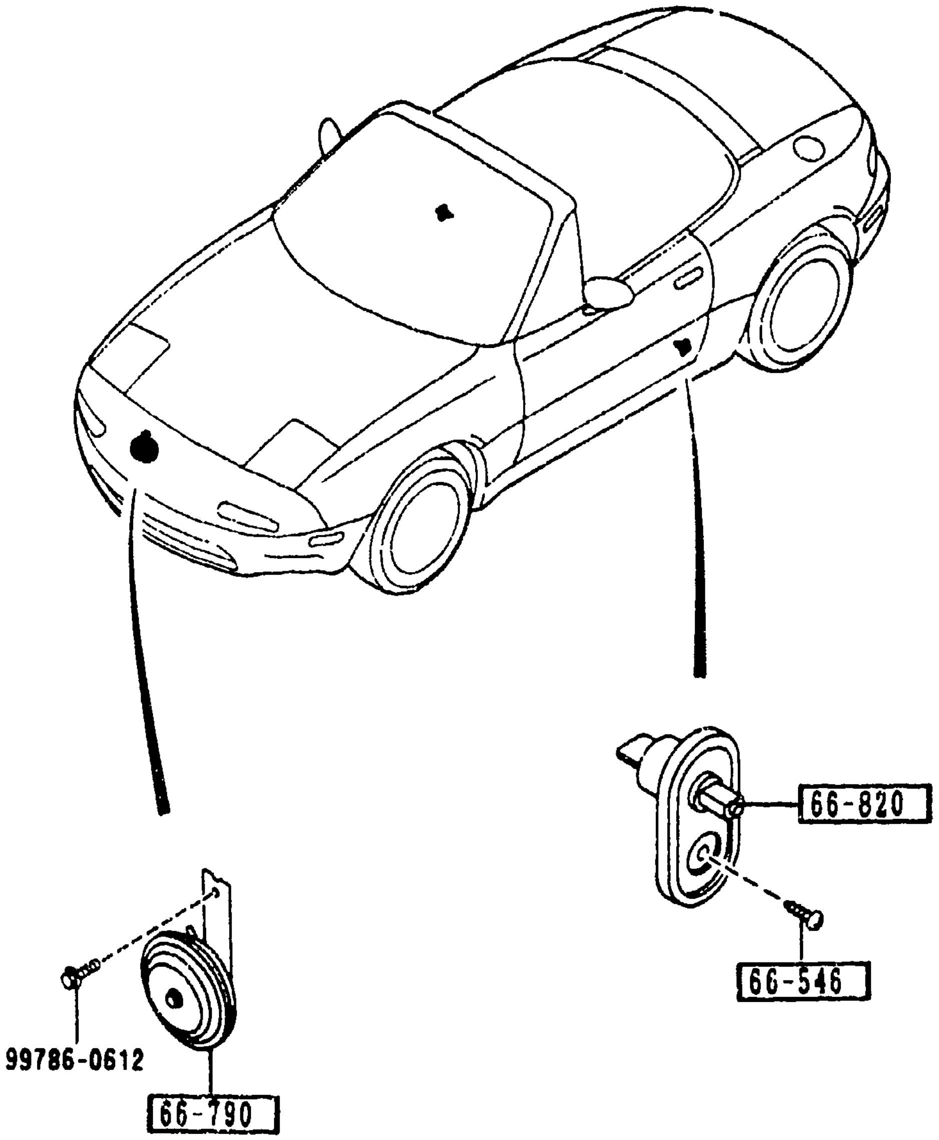
6630 RELAYS & UNIT (BODY)


99940-0600
67-9A1C
67-7F0
67-9A1B
(HORN RELAY)
67-7403
13-745
66-830B
67-7G0
99940-0600
67-720C
67-7403
(RETRACTOR RELAY)
67-7403
((MT)SMALL LAMP RELAY)
((AT)KICK DOWN RELAY)
99786-0612
67-7403
(HEAD LAMP RELAY)
67-7403
((AT)SMALL LAMP RELAY)
67-9A1A
99940-0600
67-7404
(TRANSFER RELAY)

6630 -1 * RELAYS & UNIT (BODY)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-745		BRACKET,RELAY			
NA02-67-9A1	1				
66-830B		UNIT,FLASHER			
HE01-66-830	1				
67-7F0		UNIT,DIAGNOSIS-AIR BAG			
NA01-67-7F0	1				-9A01
NA01-67-7F0A	1				9A01-
67-7G0		UNIT,BACK UP POWER-A.BAG			
NA01-67-7G0 AN(NA01-67-7G0A)	1				-0302
NA01-67-7G0A	1				0302-
67-720C		TIMER & BUZZER			
NA02-67-720	1				
67-7403		RELAY,N.O.			
H300-67-740	1	30A (HEAD LAMP RELAY)			
LA10-67-740	2	10A (HORN RELAY) (SMALL LAMP RELAY) (MT)			
	3	(HORN RELAY) (SMALL LAMP RELAY) (KICK DOWN RELAY) (AT)			
LA12-67-740	1	(FOR RETRACTOR RELAY)			
67-7404		RELAY,TRANSFER			
HD22-67-740	1	(W/AIR BAG)			
67-9A1A		BRACKET,RELAY			
NA01-67-9A1	1				
67-9A1B		BRKT,DIAGNOSIS UNIT			
NA06-67-9A1B	1				
67-9A1C		BRKT,DIAGNOSIS/POWER UNIT			
NA05-67-9A1B	1				

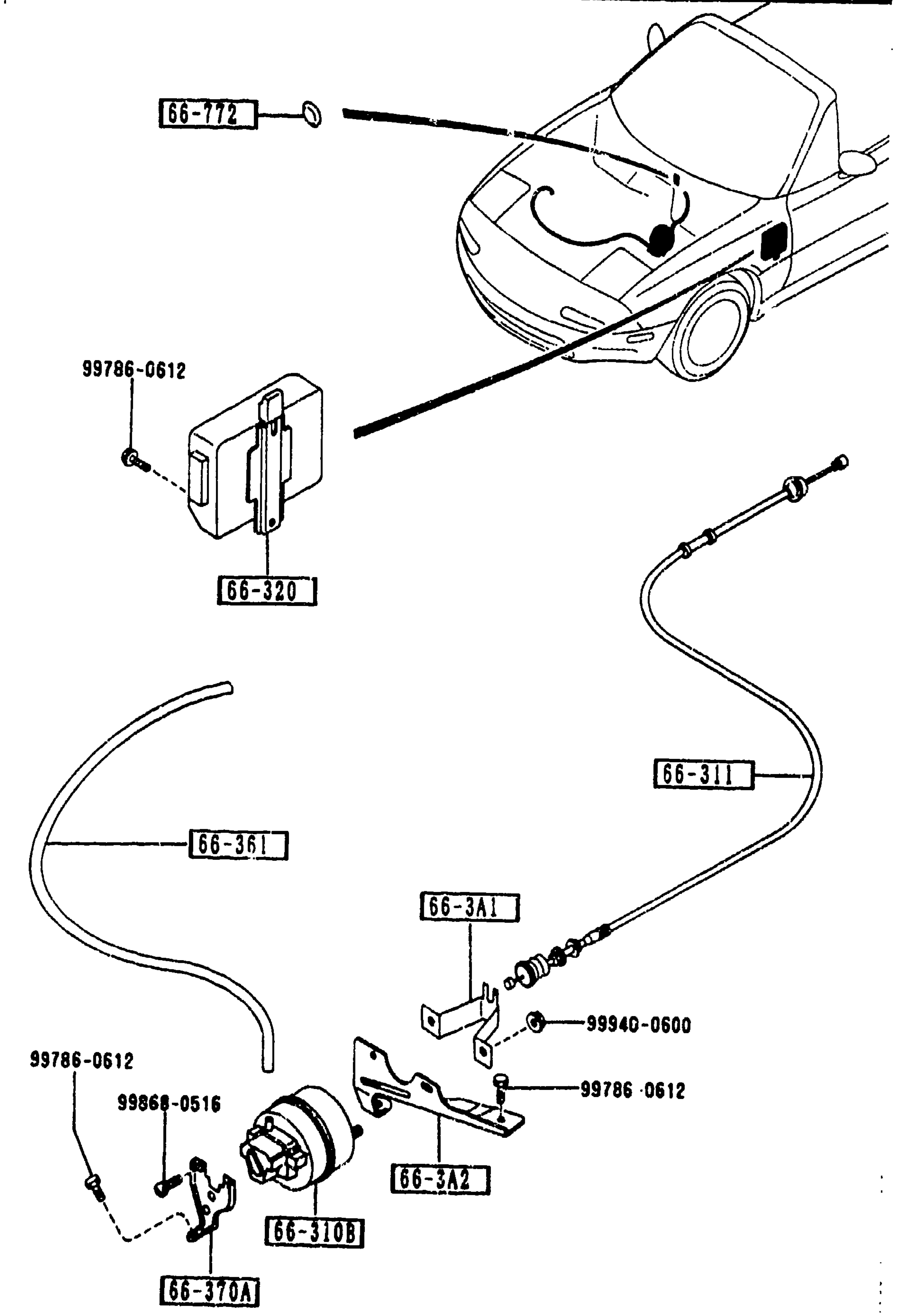
9A01 NA35**-122908
0302 NA35**-142105


66-820
66-546
99786-0612
66-790

6635 -1 M DOOR SWITCH & HORNS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-546		SCREW,DOOR SWITCH			
LA01-66-546	2				
66-790		HORN,LOW TONE			
SA59-66-790	1				
66-820		SWITCH,DOOR			
B455-66-540	2				

6640 AUTO CRUISE CONTROL SYSTEM

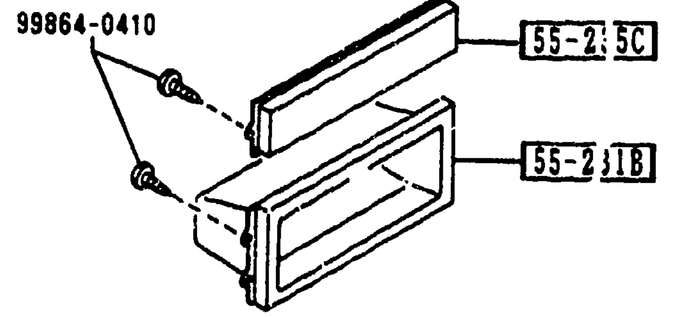

66-772
99786-0612
66-320
66-311
66-361
66-3A1
99940-0600
99786-0612
99786-0612
99868-0516
66-3A2
66-310B
66-370A

6640 -1 * AUTO CRUISE CONTROL SYSTEM

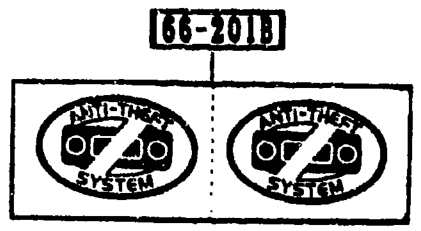
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-3A1		BRACKET,ACTUATER-A.C.C.			
LA01-66-3A1	1				
66-3A2		BRACKET,ACTUATOR-FRONT			
NA01-66-3A2A	1				
66-310B		ACTUATOR,A.C.C.			
LA01-66-310A	1				
66-311		WIRE,A.C.C.			
NA01-66-311A	1				
66-320		BOX,A.C.C.			
NA01-66-320	1	(MT)			
NA03-66-320	1	(AT)			
66-361		PIPE,AUTO CRUISE CONTROL			
NA01-66-361	1				
66-370A		BRACKET,ACTUATER			
NA01-66-3A3A	1				
66-772		GROMMET			
B092-41-661	1	BASE, (W/O AUTO CRUISE CONT.)			

6680 AUDIO SYSTEMS (RADIO & TAPE DECK)

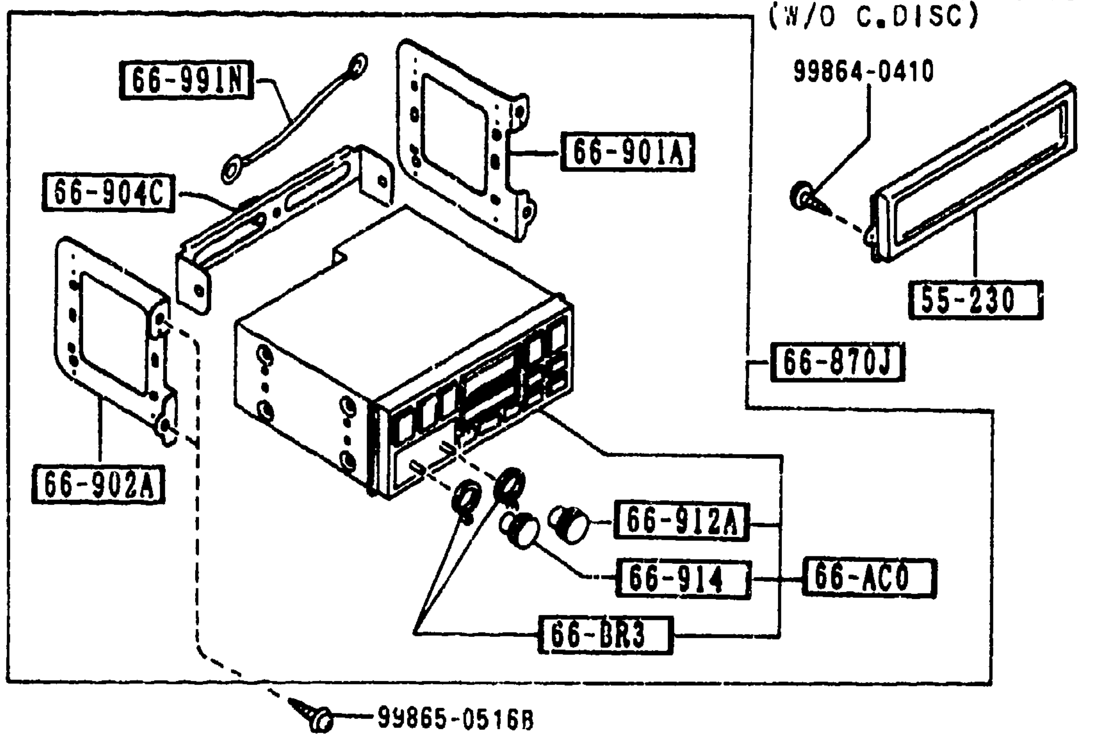
(W/O AUDIO)


99864-0410
55-235C
55-231B

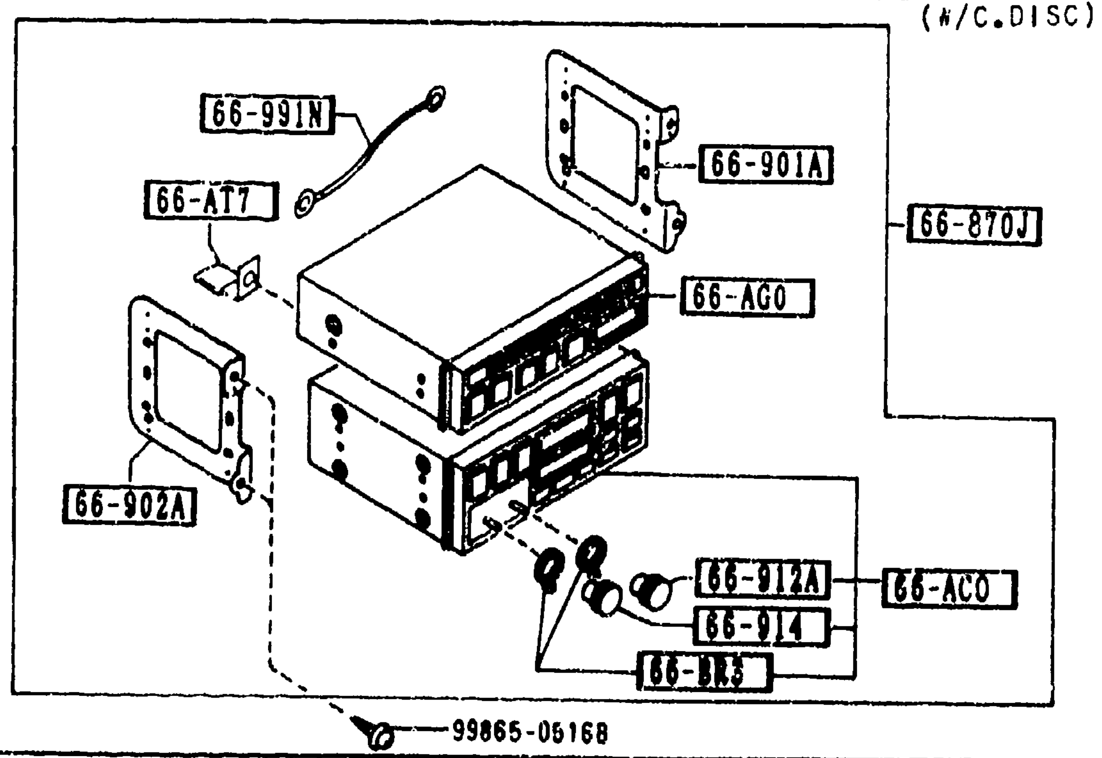
(ANTI THEFT LABEL)


66-201B
ANTI-THEFT SYSTEM
ANTI-THEFT SYSTEM

(W/O C.DISC)


66-991N
66-901A
66-904C
99864-0410
55-230
66-870J
66-902A
66-912A
66-914
66-AC0
66-BR3
99865-0516B

(W/C.DISC)

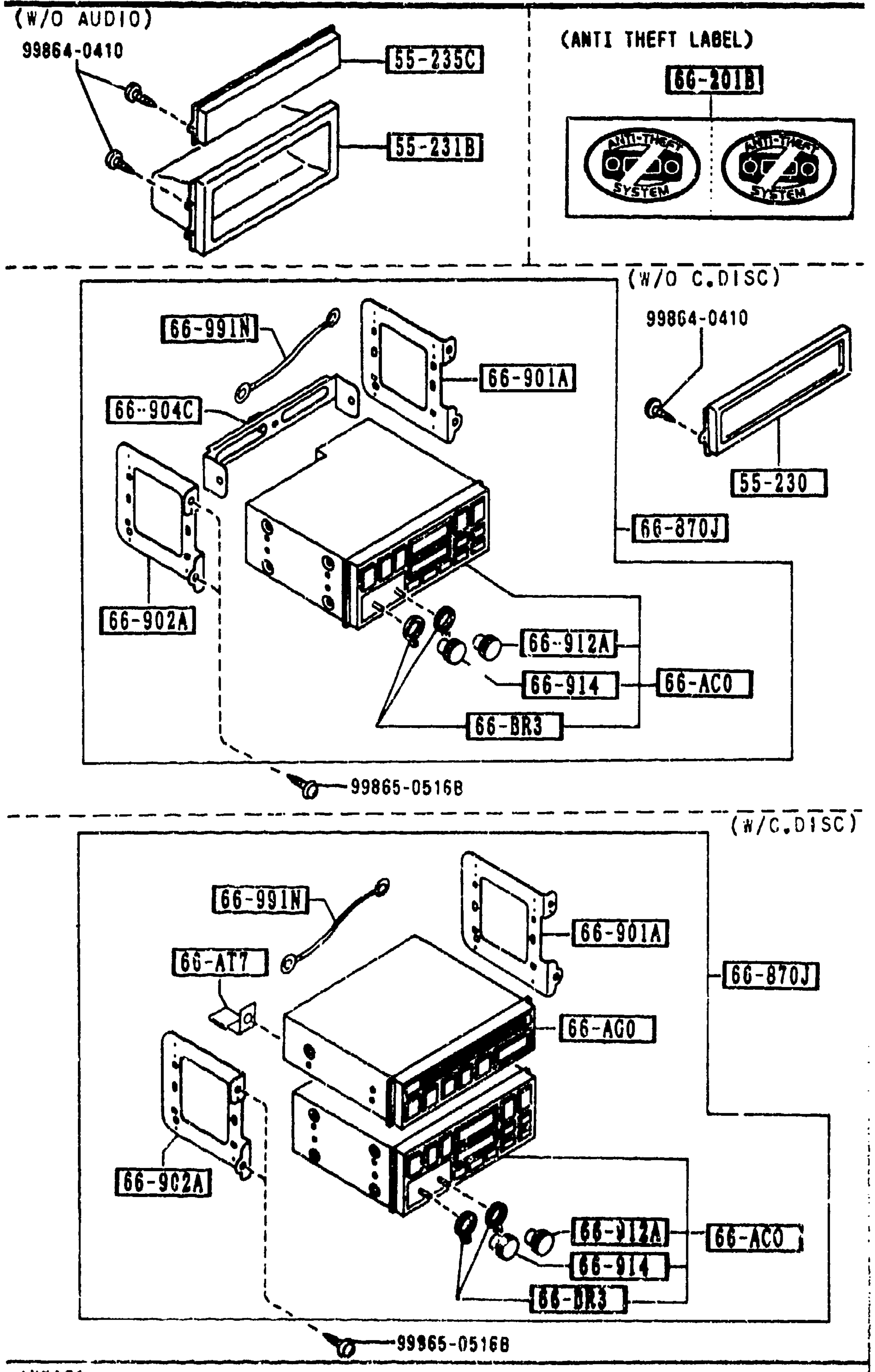

66-991N
66-901A
66-AT7
66-870J
66-AG0
66-902A
66-912A
66-914
66-AC0
66-BR3
99865-0516B

6680 -1 AUDIO SYSTEMS (RADIO & TAPE DECK)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
55-230		PANEL,AUDIO			
NA01-55-231	1	PKG-OPT, (W/AUDIO)			
55-231B		ORNAMENT,STEREO			
FC02-55-235 A (FC02-55-235A)	1				-9801
FC02-55-235A	1	BASE, (W/O AUDIO)			9801-
55-235C		ORNAMENT,STEREO-LOWER			
LA02-55-235	1	BASE, (W/O AUDIO)			
66-AC0		TUNER & DECK,COMB.			
NA01-66-AC0	1	PKG-OPT, (W/AUDIO)			
66-AG0		PLAYER,COMPACT DISC			
NA01-66-AG0	1	OPTION, (W/C.DISC)			
66-AT7		BRACKET(RR),AUDIO			
NA03-66-AT7	1	OPTION, (W/C.DISC)			
66-BR3		KNOB,BALANCE-TUNER			
NA01-66-BR3	2	PKG-OPT, (W/AUDIO)			
66-201B		LABEL,ANTI THEFT-AUDIO			
NA01-66-201	1	PKG-OPT, (W/AUDIO)			
66-870J		AUDIO SET			
NA02-66-9C0	1	PKG-OPT, (W/O C.DISC)			
NA03-66-9W0	1	OPTION, (W/C.DISC)			
66-901A		BRACKET(R),TUNER			
NA01-66-AT1	1				
66-902A		BRACKET(L),TUNER			
NA01-66-AT2	1				

9801 NA35MM-116316

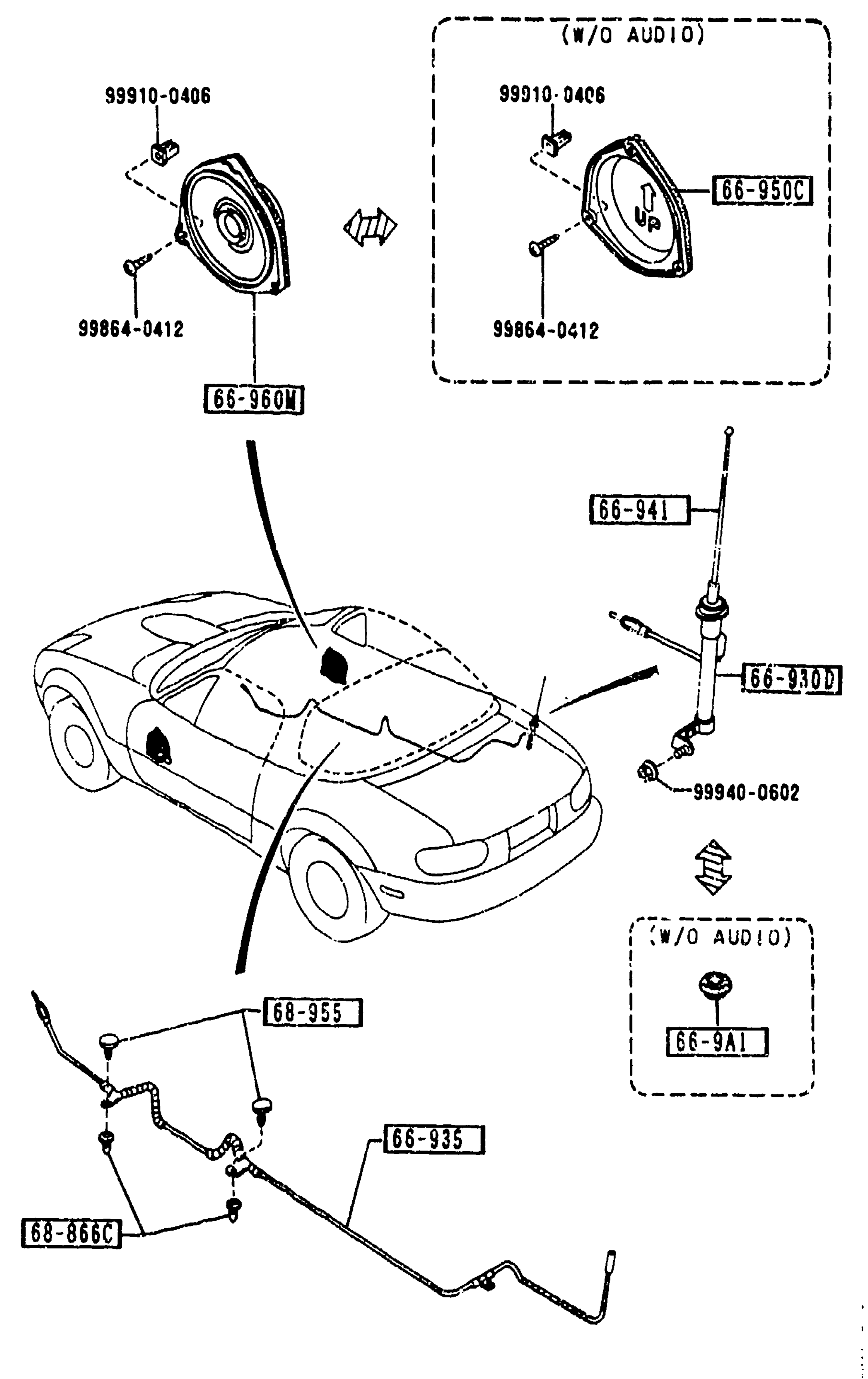
6680 AUDIO SYSTEMS (RADIO & TAPE DECK)


(W/O AUDIO)
99864-0410
55-235C
55-231B
(ANTI THEFT LABEL)
66-201B
ANTI-THEFT SYSTEM
ANTI-THEFT SYSTEM
(W/O C.DISC)
99864-0410
55-230
66-991N
66-901A
66-904C
66-870J
66-902A
66-912A
66-914
66-AC0
66-BR3
99865-0516B
(W/C.DISC)
66-991N
66-901A
66-870J
66-AT7
66-AG0
66-902A
66-912A
66-914
66-AC0
66-BR3
99865-0516B

6680 -2 * AUDIO SYSTEMS (RADIO & TAPE DECK)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-904C		BRACKET,LOW			
NA01-66-AT6	1	BASE, PKG-OPT, (W/O C.DISC)			
66-912A		KNOB,TONE-TUNER			
NA01-66-BR2	1	PKG-OPT, (W/AUDIO)			
66-914		KNOB,VOLUME-TUNER			
NA01-66-BR1	1	PKG-OPT, (W/AUDIO)			
66-991N		CORD,EARTH			
NA01-66-997	1				

6682 AUDIO SYSTEMS (ANTENNA & SPEAKER)

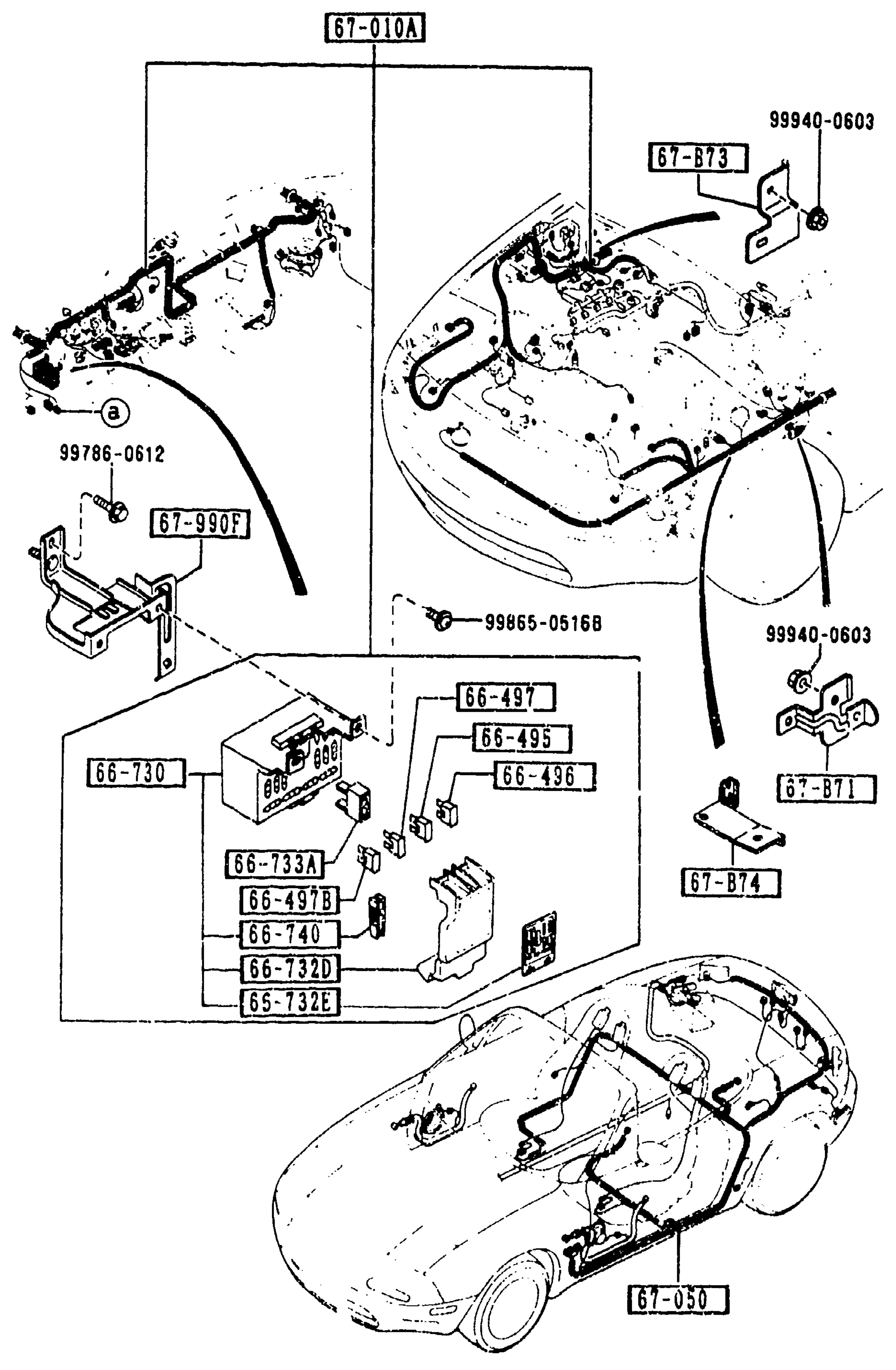

(W/O AUDIO)
99910-0406
99864-0412
66-960M
99910-0406
66-950C
Up
99864-0412
66-941
66-930D
99940-0602
(W/O AUDIO)
66-9A1
68-955
66-935
68-866C

6682 -1 * AUDIO SYSTEMS (ANTENNA & SPEAKER)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-9A1		COVER,HOLE-ANTENNA			
FB01-66-9A1A	1	BASE, (W/O AUDIO)			
66-930D		BODY,LOW-RADIO ANTENNA			
NA01-66-A3X	1	PKG-OPT, (W/ANTENNA)			
66-935		FEEDER-ANTENNA			
NA01-66-940	1				
66-941		POLE,ANTENNA			
NC01-66-A30	1	PKG-OPT, (W/ANTENNA)			
66-950C		BRACKET,LOUD SPEAKER			
NA01-66-980A	2	BASE, (W/O AUDIO)			
66-960M		SPEAKER,DOOR			
NA03-66-960 A (NA03-66-96X)	2				-0702
NA03-66-96X	2	PKG-OPT, (W/ANTENNA)			0702-
68-866C		FASTENER,SEAL			
B335-68-865A	2				
68-955		FASTENER,LIFT GATE TRIM			
GJ37-68-955	2				
00		NAO BLACK			

0702 NA35**-200195

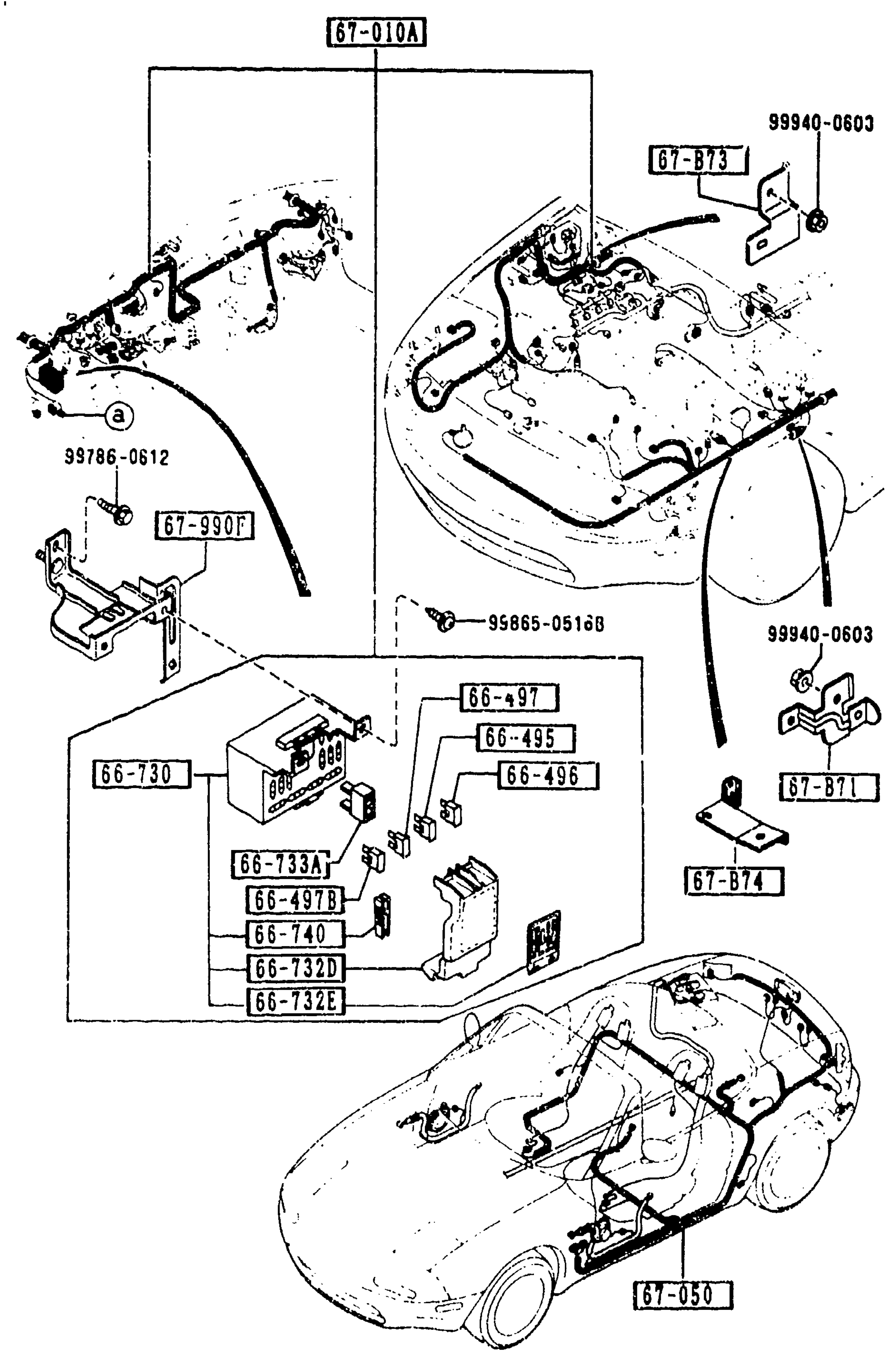
6700 WIRING HARNESSES(FRONT & REAR)


67-010A
99940-0603
67-B73
a
99786-0612
67-990F
99865-0516B
99940-0603
66-497
66-495
66-496
66-730
67-B71
66-733A
66-497B
66-740
66-732D
65-732E
67-B74
67-050

6700 -1 WIRING HARNESSES(FRONT & REAR)

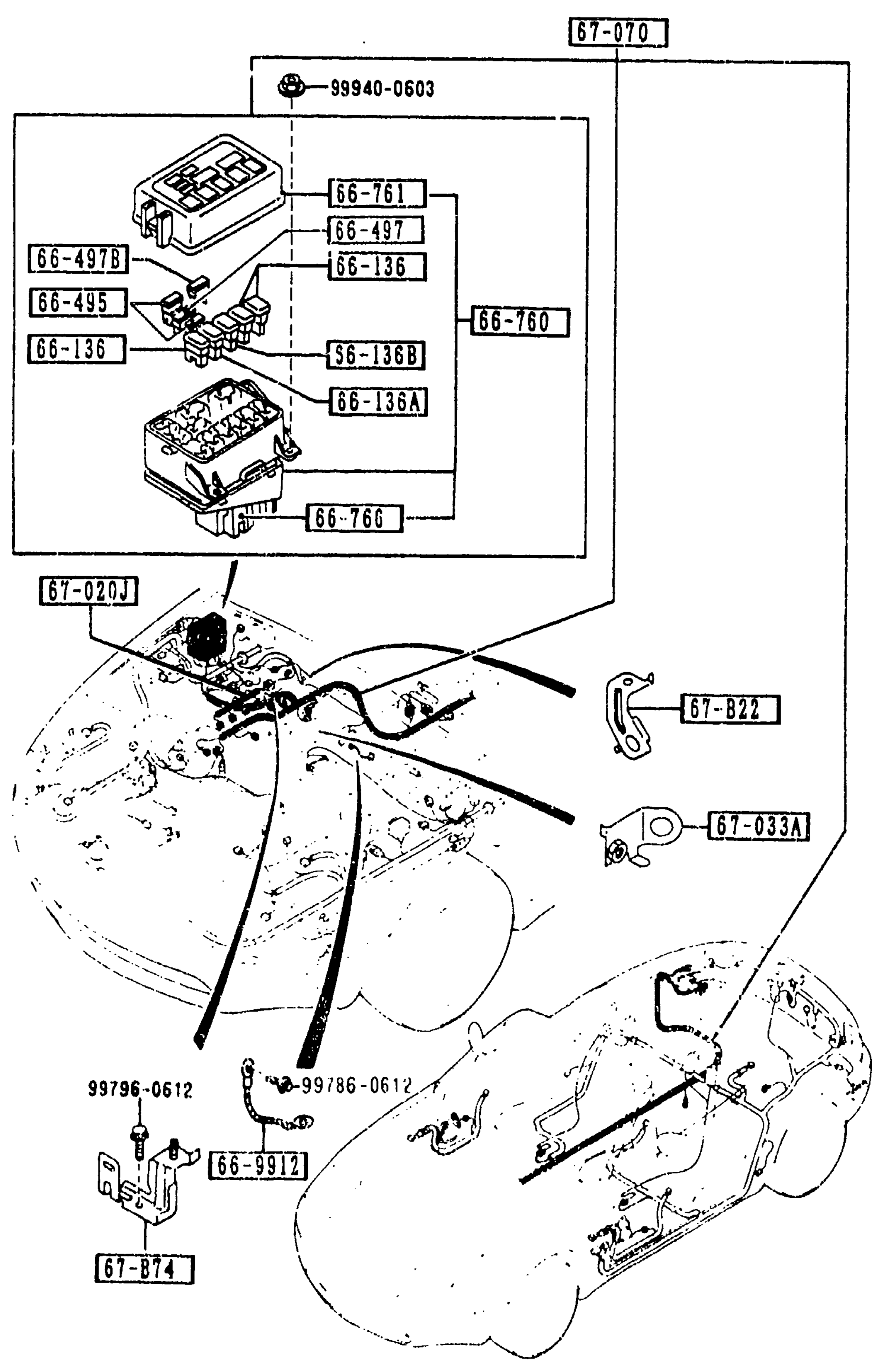
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-495		FUSE(10A)			
99705-1110	2				
66-496		FUSE(15A)			
99705-1115	6				
66-497		FUSE(20A)			
99705-1120	1				
66-497B		FUSE(30A)			
99705-1130	1				
66-730		BLOCK,FUSE			
NA01-66-730C	1				
66-732D		COVER,FUSE BLOCK			
NA01-66-731A	1	FURUKAWA			
56-732E		LABEL,CAUTION-FUSE C OVER			
NA01-66-732A	1				
66-733A		BREAKER			
H001-66-733	1				
66-740		HOLDER,FUSE			
H001-66-739	1				
67-B71		BRACKET,HARNESS			
NA05-67-BW13	1	(W/AIR BAG)			
67-B73		BRACKET,HARNESS			
NA05-67-BW2	1	(W/AIR BAG)			
67-B74		BRACKET,HARNESS			
NA05-67-BW0A	1				
67-010A		HARNESS,FRONT			
NA03-67-010D	1	(W/AIR BAG) (AT)			
NA01-67-010J AN(NA01-67-010L)	1				-9701

9701 NA35**-111969


67-010A
99940-0603
67-B73
a
99786-0612
67-990F
99865-0516B
99940-0603
66-497
66-495
66-496
66-730
66-733A
66-497B
66-740
66-732D
66-732E
67-B71
67-B74
67-050

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA02-67-010J AN(NA02-67-010L)	1				-9701
NA01-67-010L	1	BASE, (W/O HEAD SPEAKER) (MT)			9701-9901
NA02-67-010L	1	PKG-OPT, (W/HEAD SPEAKER) (MT)			9701-9901
NA01-67-010U AN(NA01-67-010W)	1				9901-9A01
NA02-67-010U AN(NA02-67-010W)	1				9901-9A01
NA01-67-010W AN(NA04-67-010)	1				9A01-9C01
NA02-67-010W AN(NA05-67-010)	1				9A01-9C01
NA04-67-010 AN(NA04-67-010A)	1				9C01-0401
NA05-67-010 AN(NA05-67-010A)	1				9C01-0401
NA04-67-010A	1	BASE, (W/O HEAD SPEAKER) (MT)			0401-
NA05-67-010A	1	PKG-OPT, (W/HEAD SPEAKER) (MT)			0401-
NA08-67-010	1	(W/O AIR BAG) (MT)			0701-
NA09-67-010D	1	(W/O AIR BAG) (AT)			0701-
67-050		HARNESS,REAR			
NA01-67-050C AN(NA01-67-050D)	1				-9A01
NA02-67-050C AN(NA02-67-050D)	1				-9A01
NA01-67-050D	1	BASE, (W/O HEAD SPEAKER)			9A01-
NA02-67-050D	1	PKG-OPT, (W/HEAD SPEAKER)			9A01-
67-990F		BRACKET,HARNESS			
NA01-67-BJ0	1				

9701	NA35**-111969
9901	NA35**-119257
9A01	NA35**-122908
9C01	NA35**-130310
0401	NA35**-146561
0701	NA35**-200041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66-497B
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66-760
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66-136B
66-136A
66-766
67-020J
67-B22
67-033A
99796-0612
99786-0612
66-9912
67-B74

6701 -1 WIRING HARNESSES(ENGINE & T/MISSION)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RECIPICTION	FROM-TO
66-136 H115-67-099	3	FUSE(30A)			
66-136A H116-67-099	1	FUSE(40A)			
66-136B H117-67-099	1	FUSE(80A)			
66-495 99705-1110	2	FUSE(10A)			
66-497 99705-1120	1	FUSE(20A)			
66-497B 99705-1130	1	FUSE(30A)			
66-760 NA01-66-760B	1	BLOCK,MAIN FUSE			
66-761 NA02-66-762B	1	COVER,MAIN FUSE BLOK YAZAKI			
66-766 B465-66-767	1	COVER,UNDER-MAIN FUSE BLK			9701-
66-9912 NA01-67-EW1A AN(NA01-67-EW1B)	1	WIRE,EARTH			-9601
NA01-67-EW1B	1				9601-
67-B22 NA01-67-B20A	1	BRACKET,HARNESS			-9A13
67-B74 NA01-67-B80A	1	BRACKET,HARNESS			
67-020J NA01-67-080B AN(NA01-67-080C)	1	HARNESS,INJECTOR			-9701

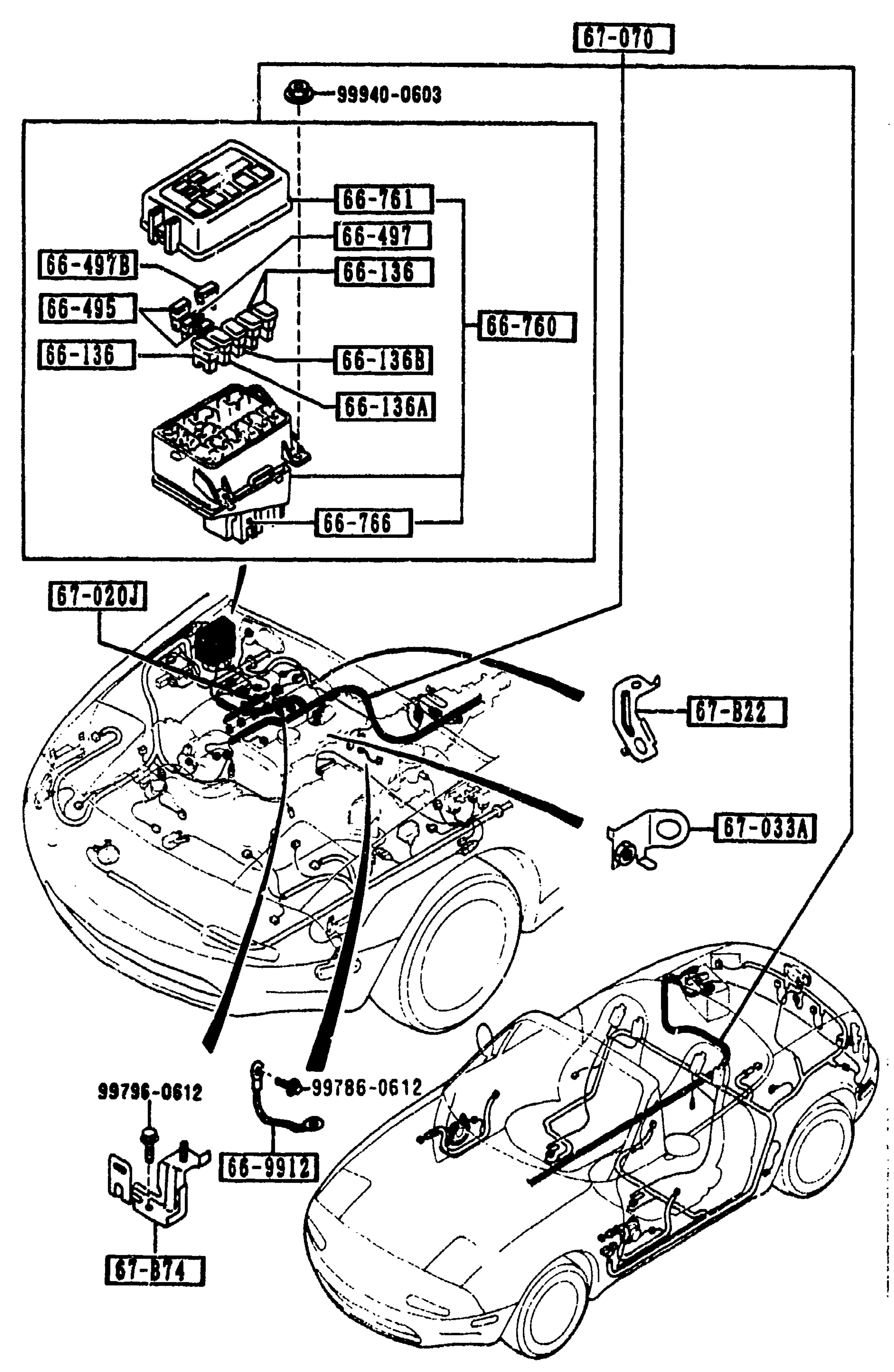
9601 NA35**-106797
9701 NA35**-111969
9A13 NA35**-124217

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS
2-E05	5000	FRONT BUMPER
2-H05	5010	REAR BUMPER
2-J05	5030	WINDOW MOULDING & COWL GRILLES
2-L05	5100	HEAD LAMPS
2-M05	5103	HEAD LAMP RETRACTORS
2-D06	5105	FRONT COMBINATION LAMPS
2-F06	5110	REAR COMBINATION LAMPS
2-I06	5120	LICENSE LAMPS
2-J06	5180	REAR FINISHER
2-L06	5230	BONNET
2-N06	5260	TRUNK LID
2-D07	5310	BODY PANELS (FRONT)
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)
2-H07	5330	BODY PANELS (DASH & COWL PANEL)
2-I07	5340	BODY PANELS (SIDE)
2-C08	5370	BODY PANELS (FLOOR)
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)
2-G08	5390	FLOOR ATTACHMENTS
2-C09	5500	DASHBOARD EQUIPMENTS
2-E09	5520	METER HOOD
2-F09	5530	SPEEDOMETER CABLE
2-G09	5540	METER COMPONENTS
2-I09	5560	DASHBOARD & RELATED PARTS
2-L09	5570	CONSOLE
2-C10	5580	VENTILATOR
2-D10	5700	SEATS
2-K10	5790	SEAT BELTS
2-L10	5800	FRONT DOORS
2-C11	5830	FRONT DOOR MECHANISMS
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS
2-C12	6100	HEATER
2-D12	6110	HEATER UNIT COMPONENTS
2-E12	6115	HEATER CONTROLS COMPONENTS
2-F12	6120	HEATER BLOWER COMPONENTS
2-G12	6130	AIR CONDITIONER
2-K12	6135	O RING SET,PIPING
2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)
2-N12	6150	COOLING UNIT (AIR CONDITIONER)
2-C13	6300	WINDOW GLASSES
2-D13	6330	SUNROOF
2-M13	6600	SWITCHES & RELAYS (ENGINE)
2-D14	6610	DASHBOARD SWITCHES
2-E14	6611	COMBINATION SWITCH
2-F14	6630	RELAYS & UNIT (BODY)
2-G14	6635	DOOR SWITCH & HORNS
2-H14	6640	AUTO CRUISE CONTROL SYSTEM
2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)
2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)
2-L14	6700	WIRING HARNESSES(FRONT & REAR)
2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)
2-D15	6702	WIRING HARNESSES(DASHBOARD)
2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)
2-F15	6704	WIRING HARNESS CLAMPS
2-I15	6720	WINDSHIELD WASHER
2-K15	6730	WINDSHIELD WIPERS
2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)
2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS
2-C16	6840	TRIMS & SCUFF PLATES
2-E16	6860	FLOOR MATS & PADS
2-G16	6870	SERVICE TOOLS
2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS
2-J16	6930	CAUTION PLATES & LABELS
2-L16	7250	QUARTER WINDOW & TRIMS
3-C03	7900	ACCESSORIES

CATLOG-NO= AUNA01-07

DATE. 1992-02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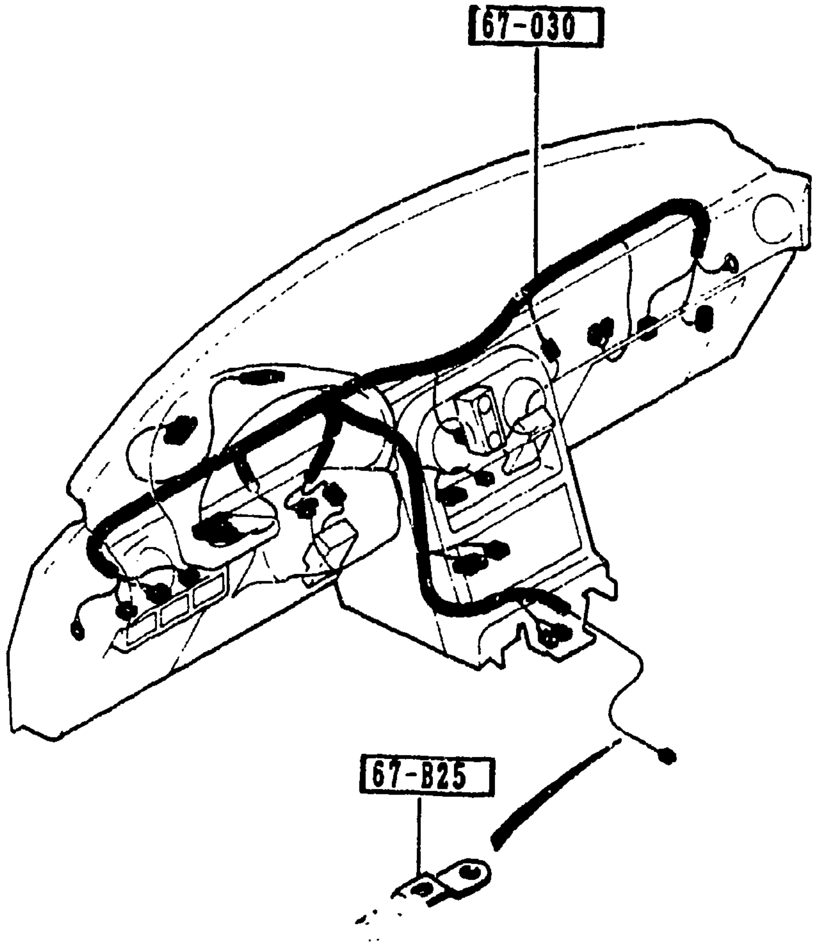
66-497
66-497B
66-136
66-495
66-760
66-136
66-136B
66-136A
66-766
67-020J
67-B22
67-033A
99796-0612
99786-0612
66-9912
67-B74

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-67-080C	1				9701-
67-033A		BRACKET,WIRING			
NA01-67-810B	1				
67-070		HARNESS,ENGINE			
NA03-67-070C	1	(W/AIR BAG) (AT)			
NA01-67-070F AN(NA01-67-070H)	1				-9701
NA01-67-070H AN(NA01-67-070J)	1				9701-9801
NA01-67-070J	1	(W/AIR BAG) (MT)			9801-
NA07-67-070J	1	(W/O AIR BAG) (MT)			0701-
NA09-67-070C	1	(W/O AIR BAG) (AT)			0701-

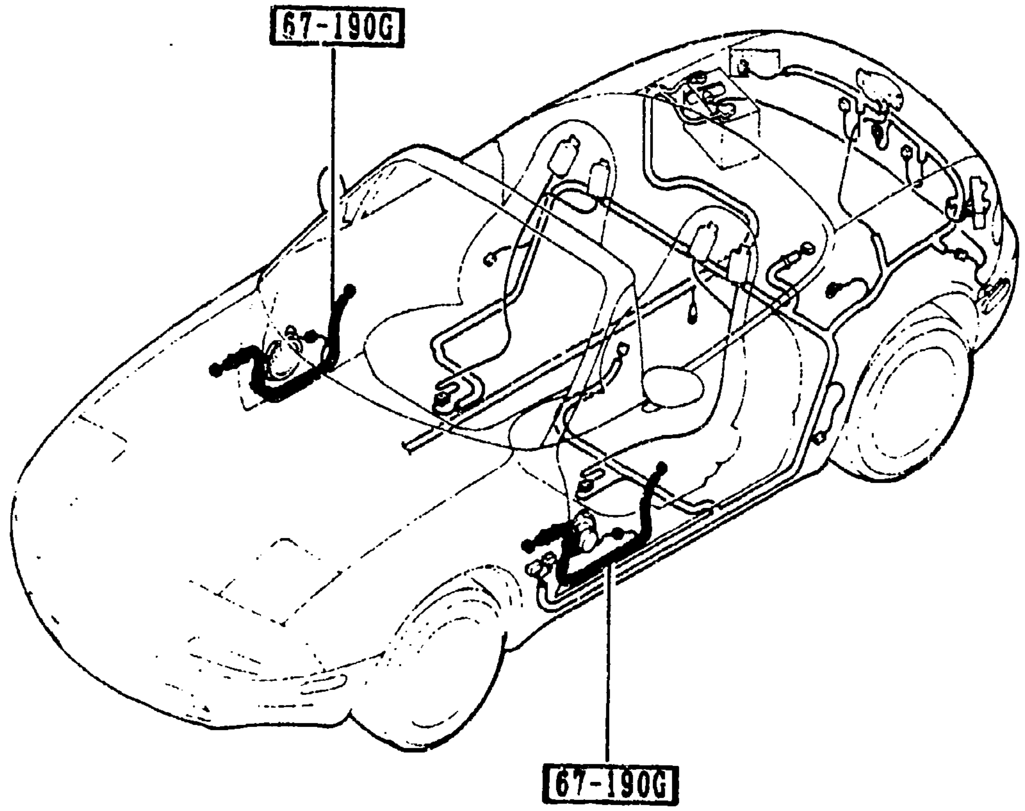
9701 NA35**-111969
9801 NA35**-116316
0701 NA35**-200041



PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-B25		BRACKET,HARNESS			
NA01-67-B31	1	(MT)			
67-030		HARNESS,INSTRUMENT			
NA03-67-030C	1	(AT)			
NA01-67-030D A (NA01-67-030H)	1				-9701
NA02-67-030D A (NA02-67-030H)	1				-9701
NA01-67-030H AN(NA01-67-030K)	1				9701-9A01
NA02-67-030H AN(NA02-67-030K)	1				9701-9A01
NA01-67-030K	1	BASE, (W/O HEAD SPEAKER) (MT)			9A01-
NA02-67-030K	1	PKG-OPT, (W/HEAD SPEAKER) (MT)			9A01-

9701 NA35**-111969
9A01 NA35[illegible]-122908

6703 WIRING HARNESSES(DOOR,FLOOR/CEILING)

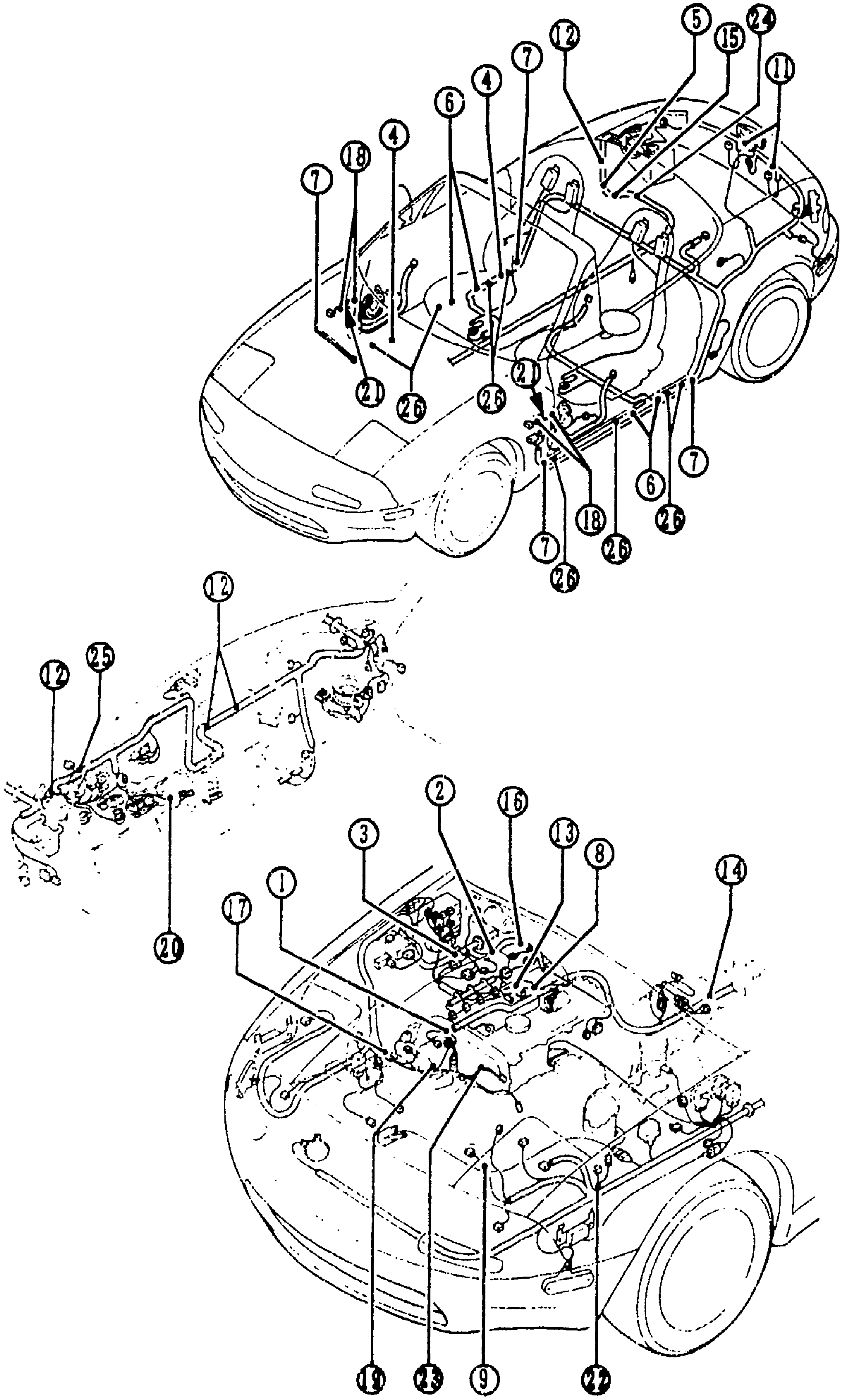


6703 -1 M WIRING HARNESSES(DOOR,FLOOR/CEILING)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-190G		HARNESS,DOOR			
NA01-67-190 AN(NA01-67-190A)	2				-9701
NA02-67-190 AN(NA02-67-190A)	2				-9701
NA01-67-190A	2	PKG-OPT, (W/O POWER WIND,W/AUDIO)			9701-
NA02-67-190A	2	PKG-OPT, V-SPECIAL, (W/POWER WIND)			9701-

9701 NA35**-111969

6704 WIRING HARNESS CLAMPS (THIS ILLUSTRATION CONSISTS OF 2 PAGES) (1/2)



12
5
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25
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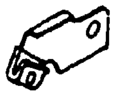
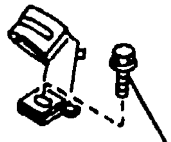
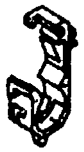
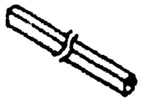
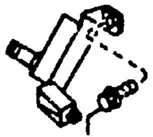
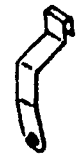
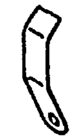
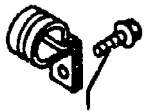
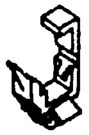
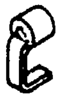
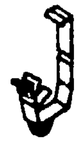
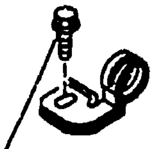
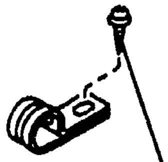
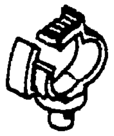
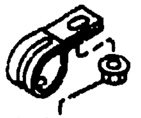
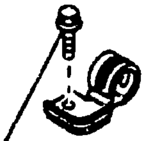
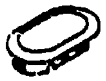
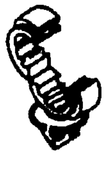
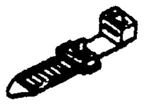
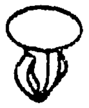
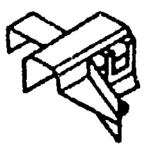
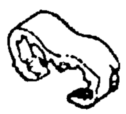
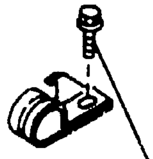
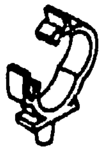
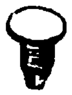
22

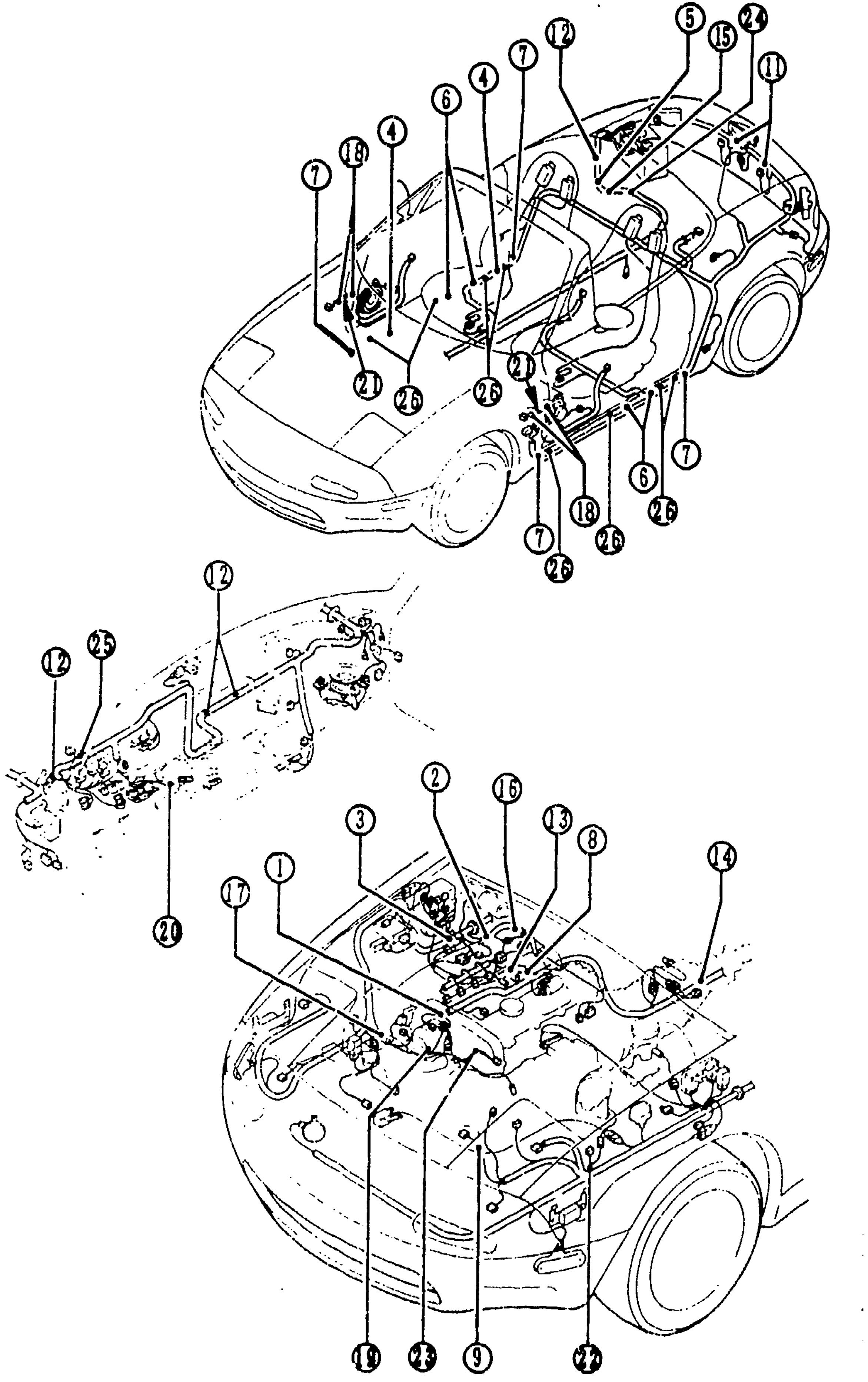
6704 WIRING HARNESS CLAMPS (2/2)

(THIS ILLUSTRATION CONSISTS OF 2 PAGES)

① 18-996A 	② 67-CS1  99786-0612	③ 67-013A 	④ 67-013D 	⑤ 67-014F  99786-0620	⑥ 67-022 
⑦ 67-026 	⑧ 67-048A  99786-0612	⑨ 67-051E 	⑩	⑪ 67-051J 	⑫ 67-052H 
⑬ 67-062B  99786-0612	⑭ 67-073  90845-0612	⑮ 67-073A 	⑯ 67-073B  99940-0603	⑰ 67-074  99786-0612	⑱ 67-191 
⑲ 13-447C 	⑳ 14-726 	㉑ 45-961B 	㉒ 67-CT2 	㉓ 67-011C 	㉔ 67-072H  99786-0620
㉕ 67-076 	㉖ 68-865 				

6704 WIRING HARNESS CLAMPS

(1/2)
(THIS ILLUSTRATION CONSISTS OF 2 PAGES)



AUNA01

(CONT'D)

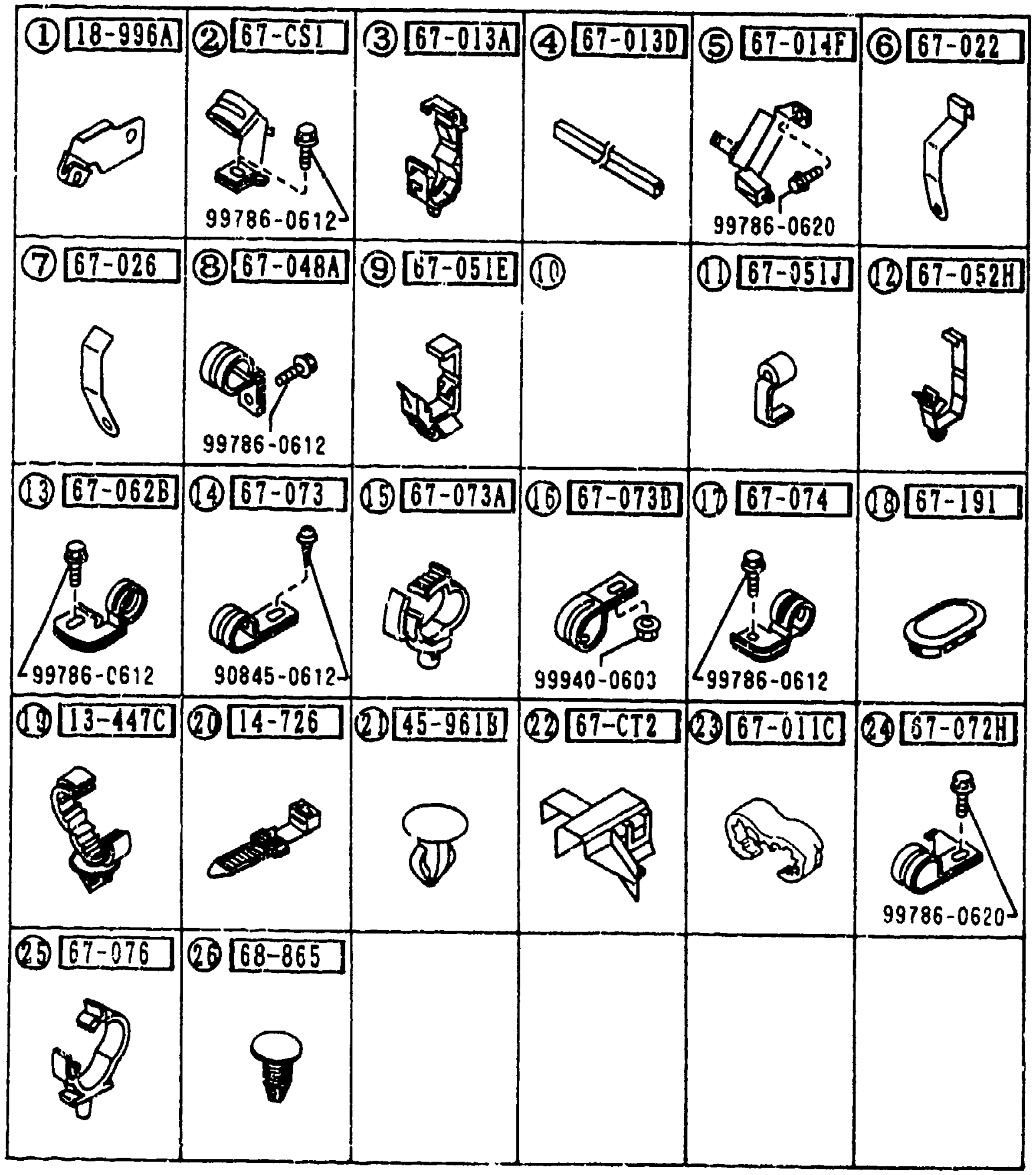
6704 -1 WIRING HARNESS CLAMPS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-447C		CLAMP,HOSE			
B61P-13-447	1				-9701
14-726		BAND			
N304-14-726	1				
18-996A		CLIP			
BF67-67-996	1				
45-961B		CAP			
H002-45-961	2				9401-
67-CS1		CLIP,HARNESS			
N001-67-CS1B AN(N001-67-CS1C)	1				-9601
N001-67-CS1C	1				9601-
67-CT2		CLIP,HARNESS			
NA01-67-CH5	1				
67-011C		CLIP			
E356-18-141	1				9701-
67-013A		CLIP			
UB42-67-013	1				
67-013D		PROTECTOR,HARNESS			
NA01-67-P54	3				
67-014F		PROTECTOR,HARNESS			
NA01-67-P71	1				
67-022		CLIP,HARNESS			
NA01-67-CW5A	4				
67-026		CLIP,HARNESS			
NA02-67-CW5A	4				
67-048A		CLIP,HARNESS			
NA01-67-CS1	1				

9401 NA35**-100090
9601 NA35**-106797
9701 NA35**-111969

6704 WIRING HARNESS CLAMPS (2/2)

(THIS ILLUSTRATION CONSISTS OF 2 PAGES)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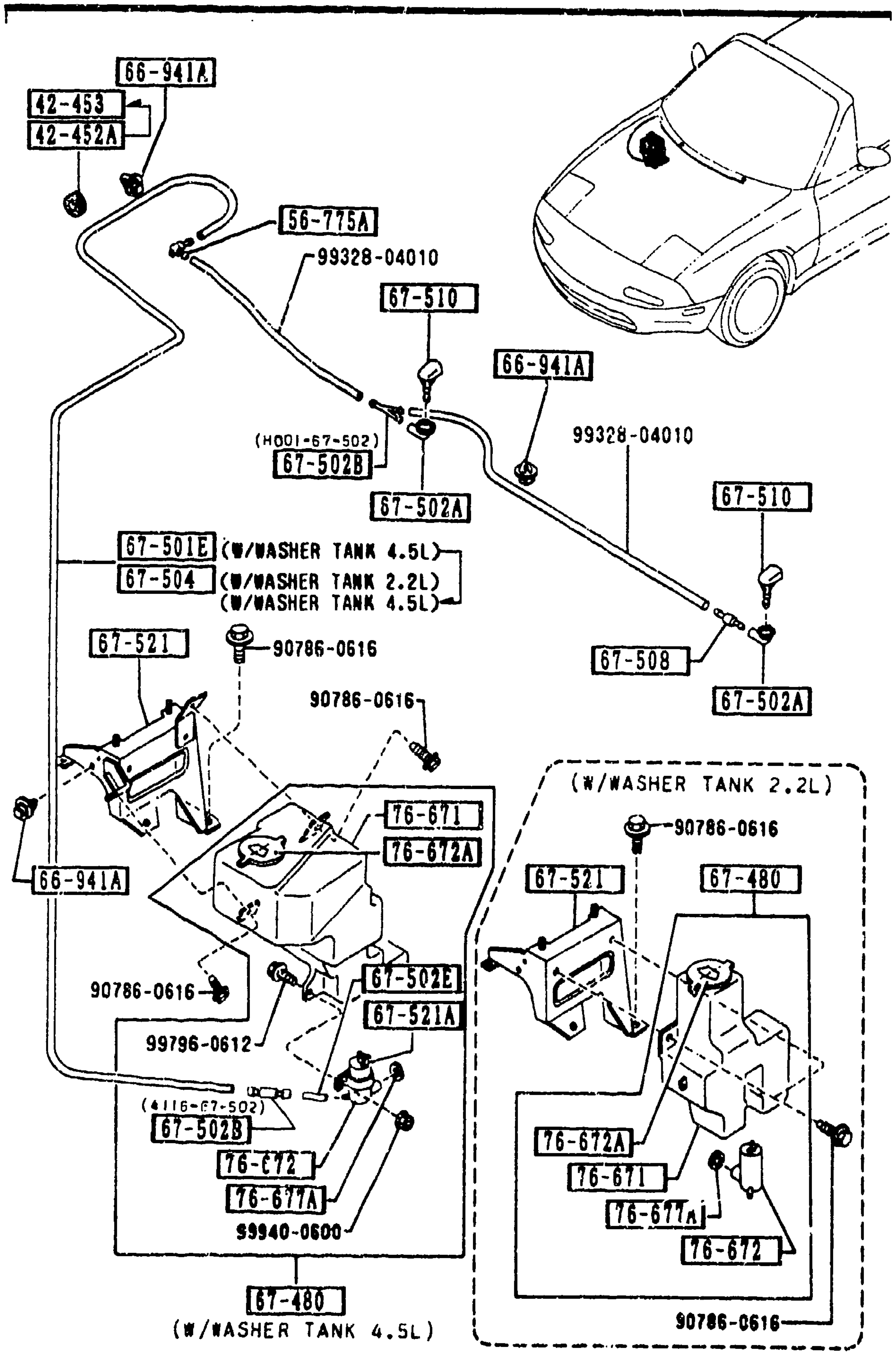
② 67-CS1
99786-0612
③ 67-013A
④ 67-013D
⑤ 67-014F
99786-0620
⑥ 67-022
⑦ 67-026
⑧ 67-048A
99786-0612
⑨ 67-051E
⑩
⑪ 67-051J
⑫ 67-052H
⑬ 67-062B
99786-0612
⑭ 67-073
90845-0612
⑮ 67-073A
⑯ 67-073B
99940-0603
⑰ 67-074
99786-0612
⑱ 67-191
⑲ 13-447C
⑳ 14-726
㉑ 45-961B
㉒ 67-CT2
㉓ 67-011C
㉔ 67-072H
99786-0620
㉕ 67-076
㉖ 68-865

6704 -2 * WIRING HARNESS CLAMPS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-051E		CLIP			
UB42-67-051	1				
67-051J		CLIP			
G031-67-053A	2				
67-052H		CLIP			
G030-67-018A	4				-9701
G030-67-018A	3				9701-
67-062B		CLIP,HARNESS			
NA02-67-CS1A	1				
67-072H		CLIP,ENGINE HARNESS			
NA01-67-CS6	1				
67-073		CLIP			
UB73-67-073A	1				
67-073A		CLIP			
NA01-67-CH7	1				
67-073B		CLIP			
H261-67-073	1				
67-074		CLIP,HARNESS			
NA01-67-CS5	1				
67-076		CLIP,ENGINE HARNESS			
NA01-67-CH8	1				
67-191		GROMMET			
B300-67-HD1	4				
68-865		FASTENER			
B003-68-865	8				
00		NA0 BLACK			
81		NA1 BEIGE			

9701 NA35**-111969

6720 WINDSHIELD WASHER

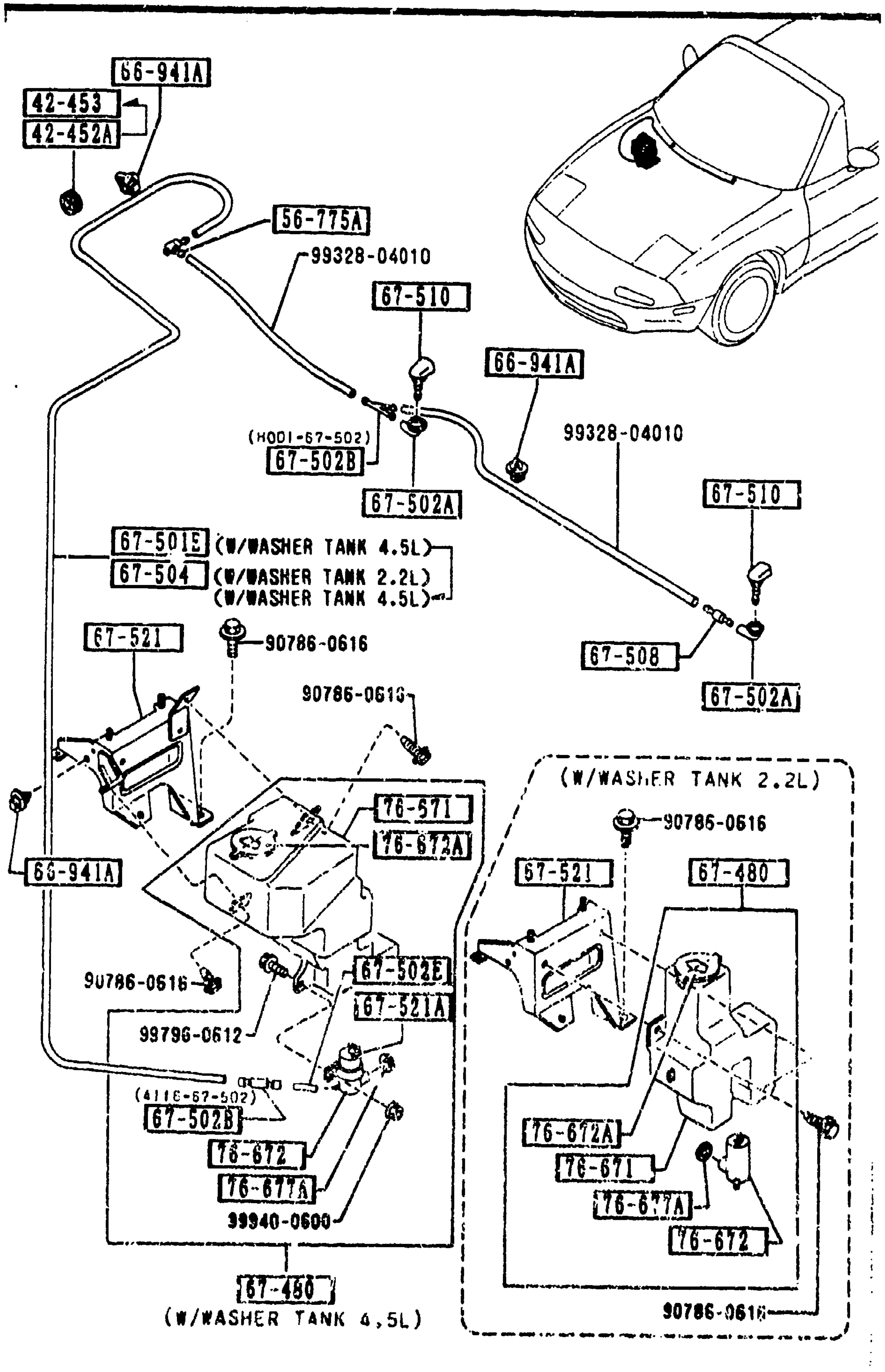

66-941A
42-453
42-452A
56-775A
99328-04010
67-510
66-941A
99328-04010
(H001-67-502)
67-502B
67-502A
67-510
67-501E (W/WASHER TANK 4.5L)
67-504 (W/WASHER TANK 2.2L)
(W/WASHER TANK 4.5L)
67-521
90786-0616
67-508
67-502A
90786-0616
(W/WASHER TANK 2.2L)
76-671
76-672A
66-941A
90786-0616
67-521
67-480
90786-0616
67-502E
67-521A
99796-0612
(4116-67-502)
67-502B
76-672
76-677A
99940-0600
76-672A
76-671
76-677A
76-672
67-480
(W/WASHER TANK 4.5L)
90786-0616

6720 -1 WINDSHIELD WASHER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
42-452A		GROMMET			
0111-41-692	1				-0904
42-453		PROTECTOR,CABLE			
G048-42-453	1				0904-
56-775A		CLIP,WASHER HOSE			
LA01-67-505A	1				
66-941A		CLIP			
GB08-66-941	4				
67-480		TANK,WASHER-FRONT			
NA01-67-480	1	BASE, (W/WASHER TANK 2.2L)			
NA04-67-480A	1	PKG-OPT, (W/WASHER TANK 4.5L)			
67-501E		PIPE,NOZZLE-FRONT WASHER			
NA04-67-501A AN(NA01-67-501A)	1				-9601
67-502A		JOINT,HOSE			
NA01-67-502	2				
67-502B		JOINT,HOSE			
H001-67-502	1				
4116-67-502	1	PKG-OPT, (W/WASHER TANK 4.5L)			
67-502E		JOINT,ELBOW-W.TANK			
S084-67-502	1	PKG-OPT, (W/WASHER TANK 4.5L)			
67-504		HOSE'C',WASHER			
NA01-67-501A	1				9601-
67-508		VALVE,CHECK			
FA54-67-508	1				

9601 NA35**-106797
0904 NA35**-709115

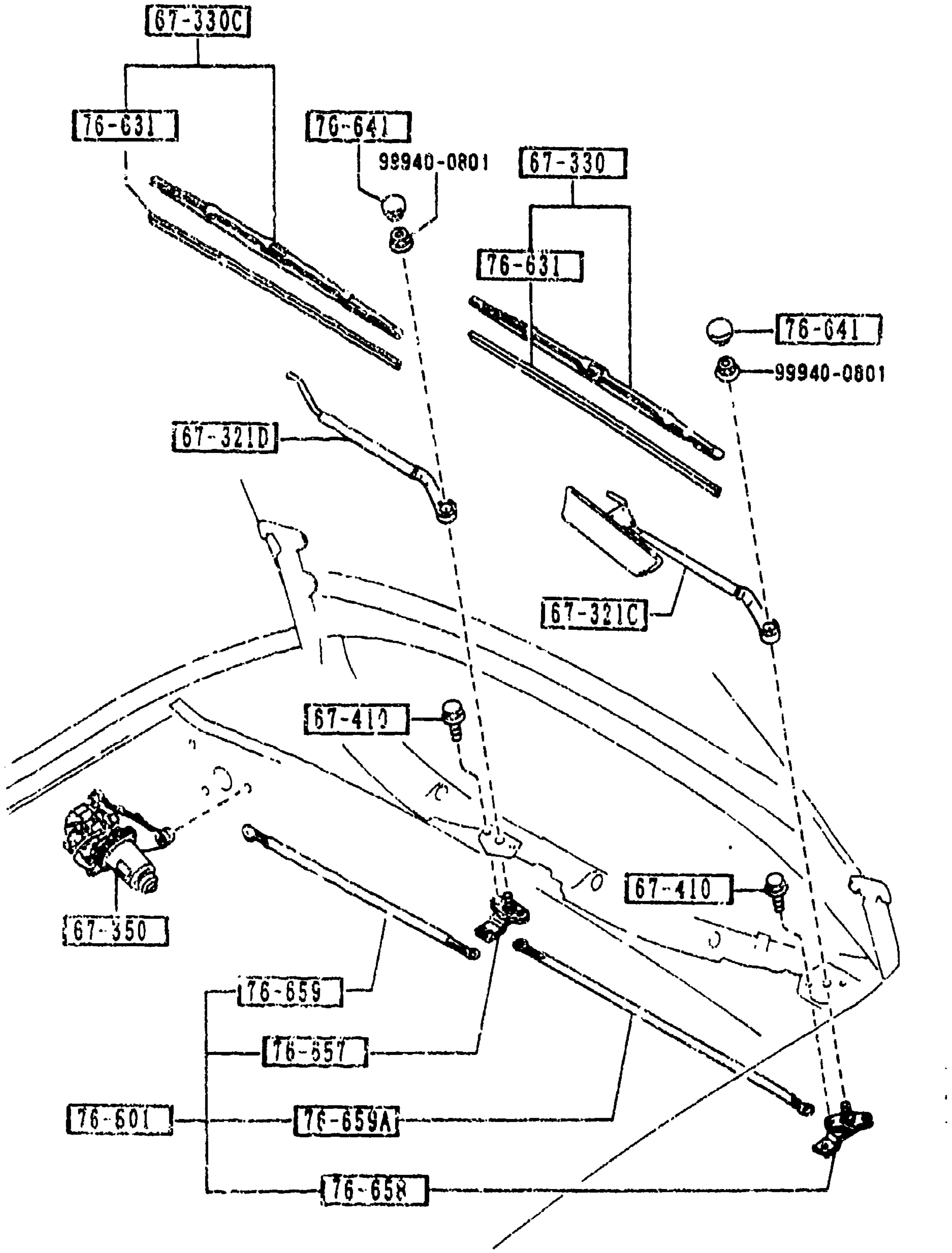
6720 WINDSHIELD WASHER


66-941A
42-453
42-452A
56-775A
99328-04010
67-510
66-941A
99328-04010
(H001-67-502)
67-502B
67-502A
67-510
67-501E (W/WASHER TANK 4.5L)
67-504 (W/WASHER TANK 2.2L)
(W/WASHER TANK 4.5L)
67-521
90786-0616
67-508
67-502A
90786-0616
(W/WASHER TANK 2.2L)
76-671
76-672A
66-941A
90786-0616
67-521
67-480
67-502E
90786-0616
67-521A
99796-0612
(4116-67-502)
67-502B
76-672
76-677A
99940-0600
76-672A
76-671
76-677A
76-672
67-480
(W/WASHER TANK 4.5L)
90786-0616

6720 -2 * WINDSHIELD WASHER

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-510		NOZZLE,WASHER-F.WIND			
NA01-67-510	2				
67-521		BRACKET,WASHER TANK			
NA01-67-520	1	BASE, (W/WASHER TANK 2.2L)			
NA04-67-520	1	PKG-OPT, (W/WASHER TANK 4.5L)			
67-521A		BRACKET			
S095-67-521	1	PKG-OPT, (W/WASHER TANK 4.5L)			
76-671		TANK,WASHER			
NA01-67-481	1	BASE, (W/WASHER TANK 2.2L)			
NA04-67-481	1	PKG-OPT, (W/WASHER TANK 4.5L)			
76-672		PUMP,WASHER			
S084-76-672	1				
76-672A		CAP,TANK			
UB39-51-815	1				
76-677A		GROMMET,WASHER TANK			
S084-76-677	1				

6730 WINDSHIELD WIPERS



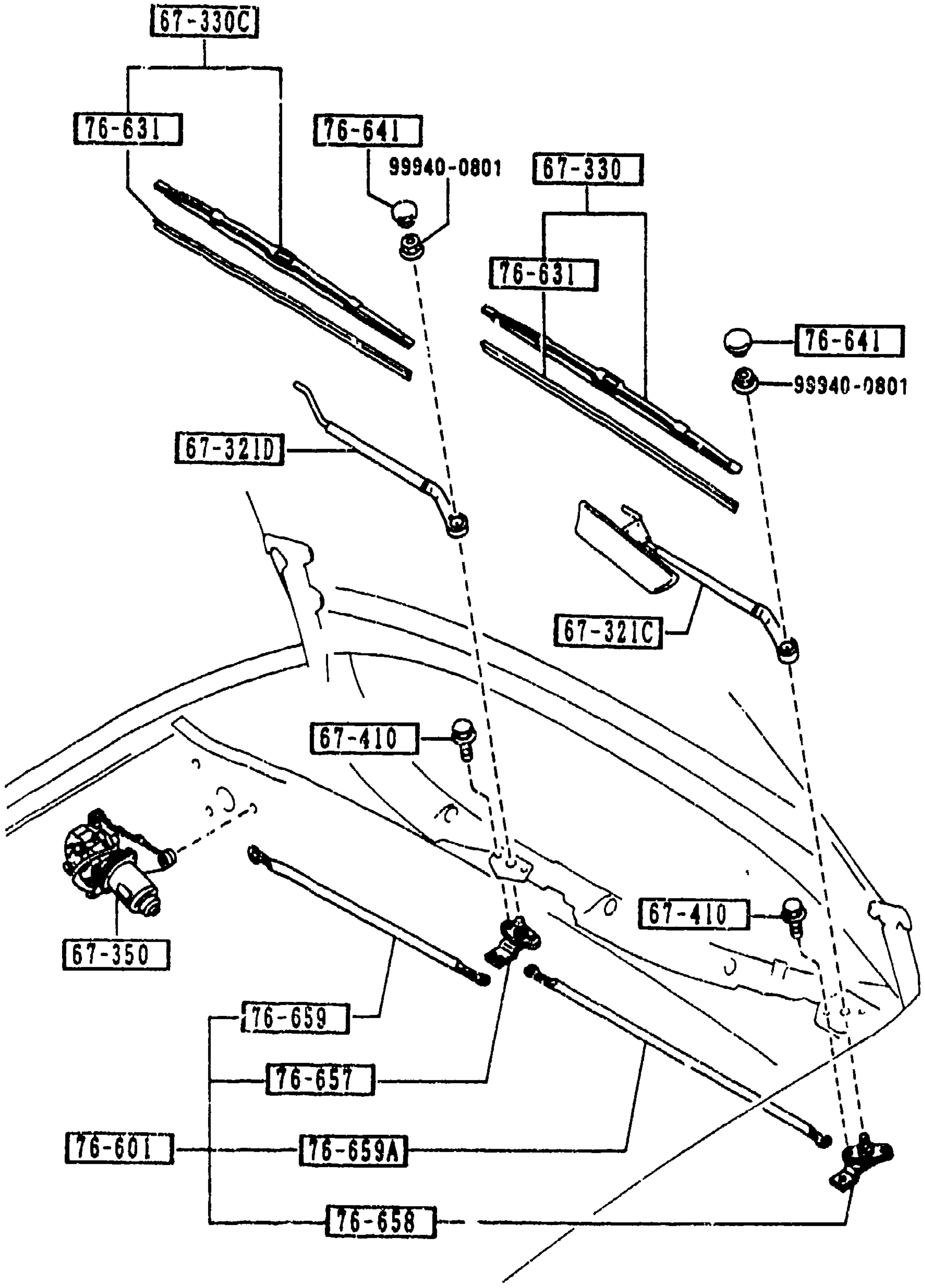
67-330C
76-631
76-641
99940-0801
67-330
76-631
76-641
99940-0801
67-321D
67-321C
67-410
67-410
67-350
76-659
76-657
76-601
76-659A
76-658

6730 -1 WINDSHIELD WIPERS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-321C		ARM,WIPER-DRIVER SIDE			
NA01-67-321	1				
67-321D		ARM,WIPER-CO DRIVER SIDE			
NA02-67-321	1				
67-330		BLADE,WIPER-FRONT			
BM90-67-330 A (BM90-67-330A)	1				-9A01
BM90-67-330A	1				9A01-
67-330C		BLADE(R),WIPER-FRONT			
BR71-67-330	1				-9A01
NA02-67-330	1				9A01-
67-350		MOTOR,WIPER			
NA01-67-340A	1	(EXC COLD SPEC.)			-0701
NA04-67-340	1	(COLD SPEC.)			-0701
NA01-67-340B	1	(EXC.COLD SPEC.)			0701-
NA04-67-340A	1	(W/AIR BAG+COLD SPEC.)			0701-
NA12-67-340A	1	(W/O AIR BAG+COLD SPEC.)			0701-
67-410		BOLT			
B455-67-369	4				
76-601		LINK,WIPER			
NA01-67-360A	1				
76-631		RUBBER,BLADE-FRONT			
BM90-67-331 A (BM90-67-331A)	1				-9A01
KA02-67-331A	1	(PASSENGER SIDE)			-9A01
BM90-67-331A	1	(DRIVER SIDE)			9A01-
NA02-67-331	1	(PASSENGER SIDE)			9A01-
76-641		COVER,WIPER ARM-FRONT			
LA01-67-395 A (LA01-67-395A)	2				-9601
LA01-67-395A	2				9601-

9601 NA35**-106797
9A01 NA35**-122908
0701 NA35**-200041

6730 WINDSHIELD WIPERS


67-330C
76-631
76-641
99940-0801
67-330
76-631
76-641
99940-0801
67-321D
67-321C
67-410
67-410
67-350
76-659
76-657
76-601
76-659A
76-658

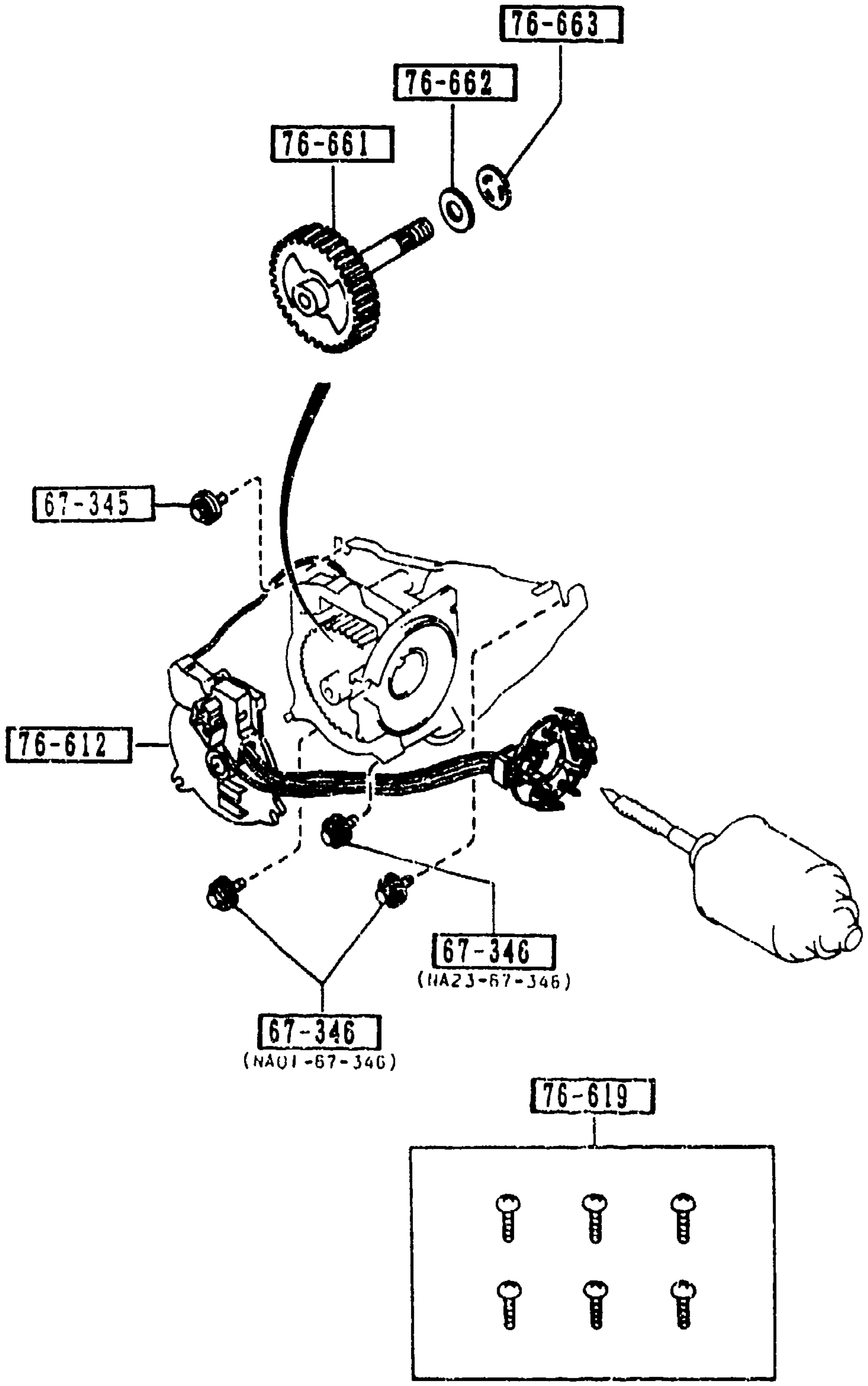
AUNA01

6730 -2 * WINDSHIELD WIPERS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
76-657		SHAFT,DRIVE NO.1			
NA01-67-363	1				
76-658		SHAFT,DRIVE NO.2			
NA01-67-364	1				
76-659		ARM NO.1,LINK			
NA01-67-361	1				
76-659A		ARM NO.2,LINK			
NA01-67-362	1				

6740 WIPER MOTOR COMPONENTS(FRONT)

COMPONENTS OF NA01-67-340B
NA04-67-340A
NA12-67-340A

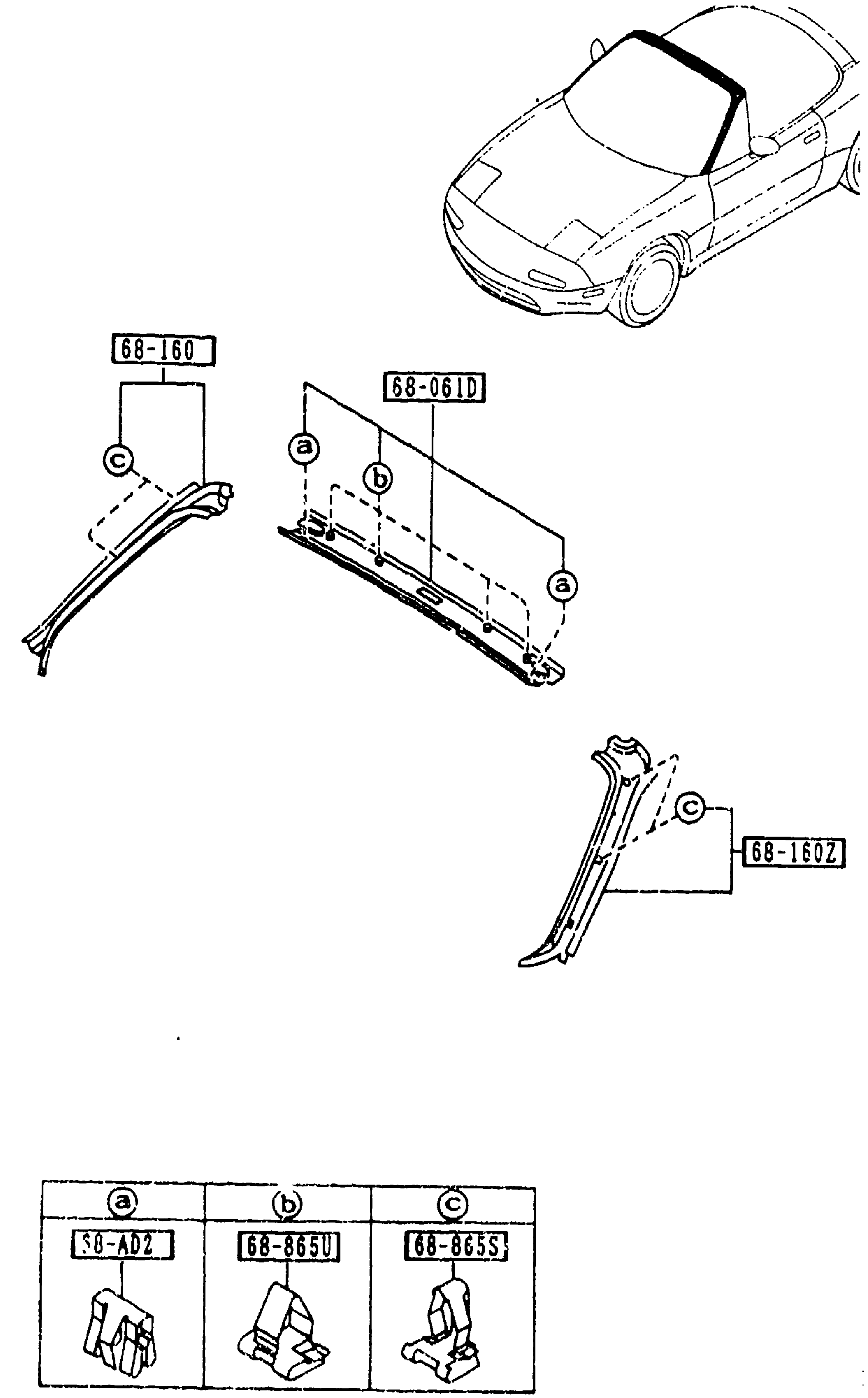


6740 -1 * WIPER MOTOR COMPONENTS(FRONT)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-345		SCREW,EARTH SET-MOTOR BRK			
NA01-67-345	1				
67-346		SCREW,BRACKET-WIPER MOTOR			
NA01-67-346	2				
NA23-67-346	1				0701-
76-612		PLATE,HOLDER-BRUSH			
NA01-67-351	1	(EXC.COLD SPEC.)			-0701
NA04-67-351	1	(COLD SPEC.)			-0701
NA17-67-351	1	(W/O AIR BAG+COLD SPEC.)			0701-
NA23-67-351	1	(EXC.COLD SPEC.)			0701-
NA26-67-351	1	(W/AIR BAG+COLD SPEC.)			0701-
76-619		PARTS SET			
H043-76-619A	1				
76-661		GEAR,SHAFT			
B455-67-354	1	(EXC.COLD SPEC.)			-9801
NA04-67-354	1	(COLD SPEC.)			-9801
B455-67-354	1				9801-0701
GJ21-67-354	1	(W/O AIR BAG+COLD SPEC.)			0701-
NA23-67-354	1	(EXC.COLD SPEC.) (W/AIR BAG+COLD SPEC.)			0701-
76-662		WASHER			
B094-76-662	1				
76-663		WASHER,TOOTHED			
B094-76-663	1				

9801 NA35**-116316
0701 NA35**-200041

6820 FRONT HEADER TRIM & PILLAR TRIMS


68-160
68-061D
a
b
c
a
c
68-160Z
a
S8-AD2
b
68-865U
c
68-865S

6820 -1 * FRONT HEADER TRIM & PILLAR TRIMS

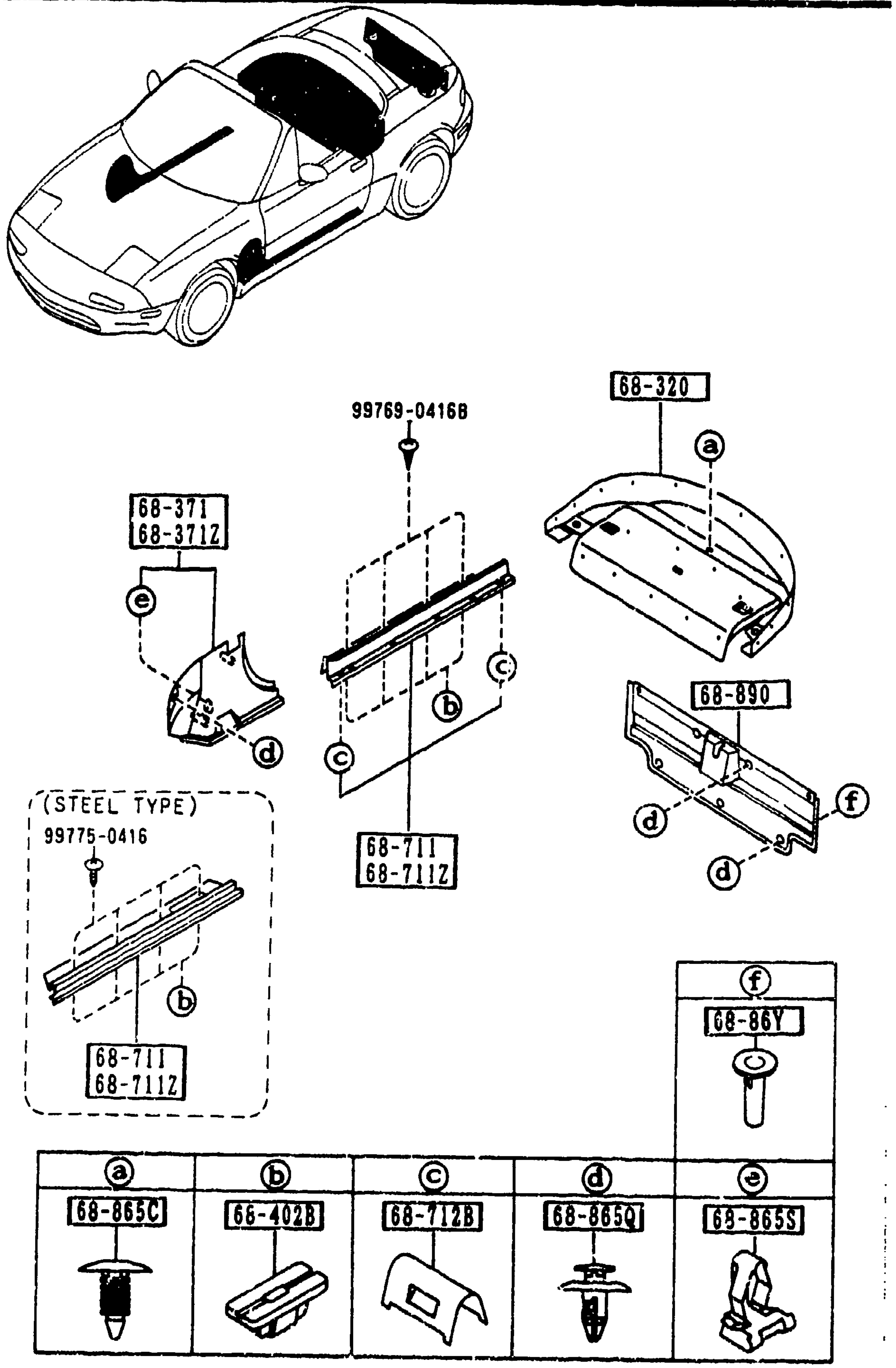
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-AD2		CLIP			
B455-68-AD2	2				
68-061D		TRIM,FRONT HEADER			
NA01-68-090	1				-9330
00		NA0 BLACK			
NA01-68-090A	1				9330-
00		NA0 BLACK			
68-160		TRIM(R),'A'PILLAR			
NA01-68-160	1				
00		NA0 BLACK			
68-160Z		TRIM(L),'A'PILLAR			
NA01-68-170	1				
00		NA0 BLACK			
68-865S		CLIP TRIM			
GJ12-68-865	4				
68-865U		CLIP,TRIM			
GJ21-68-865	4				

9330 NA35**-100072

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS
2-E05	5000	FRONT BUMPER
2-H05	5010	REAR BUMPER
2-J05	5030	WINDOW MOULDING & COWL GRILLES
2-L05	5100	HEAD LAMPS
2-M05	5103	HEAD LAMP RETRACTORS
2-D06	5105	FRONT COMBINATION LAMPS
2-F06	5110	REAR COMBINATION LAMPS
2-I06	5120	LICENSE LAMPS
2-J06	5180	REAR FINISHER
2-L06	5230	BONNET
2-N06	5260	TRUNK LID
2-D07	5310	BODY PANELS (FRONT)
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)
2-H07	5330	BODY PANELS (DASH & COWL PANEL)
2-I07	5340	BODY PANELS (SIDE)
2-C08	5370	BODY PANELS (FLOOR)
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)
2-G08	5390	FLOOR ATTACHMENTS
2-C09	5500	DASHBOARD EQUIPMENTS
2-E09	5520	METER HOOD
2-F09	5530	SPEEDOMETER CABLE
2-G09	5540	METER COMPONENTS
2-I09	5560	DASHBOARD & RELATED PARTS
2-L09	5570	CONSOLE
2-C10	5580	VENTILATOR
2-D10	5700	SEATS
2-K10	5790	SEAT BELTS
2-L10	5800	FRONT DOORS
2-C11	5830	FRONT DOOR MECHANISMS
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS
2-C12	6100	HEATER
2-D12	6110	HEATER UNIT COMPONENTS
2-E12	6115	HEATER CONTROLS COMPONENTS
2-F12	6120	HEATER BLOWER COMPONENTS
2-G12	6130	AIR CONDITIONER
2-K12	6135	O RING SET,PIPING
2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)
2-N12	6150	COOLING UNIT (AIR CONDITIONER)
2-C13	6300	WINDOW GLASSES
2-D13	6330	SUNROOF
2-M13	6600	SWITCHES & RELAYS (ENGINE)
2-D14	6610	DASHBOARD SWITCHES
2-E14	6611	COMBINATION SWITCH
2-F14	6630	RELAYS & UNIT (BODY)
2-G14	6535	DOOR SWITCH & HORNS
2-H14	6640	AUTO CRUISE CONTROL SYSTEM
2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)
2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)
2-L14	6700	WIRING HARNESSES(FRONT & REAR)
2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)
2-D15	6702	WIRING HARNESSES(DASHBOARD)
2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)
2-F15	6704	WIRING HARNESS CLAMPS
2-I15	6720	WINDSHIELD WASHER
2-K15	6730	WINDSHIELD WIPERS
2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)
2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS
2-C16	6840	TRIMS & SCUFF PLATES
2-E16	6860	FLOOR MATS & PADS
2-G16	6870	SERVICE TOOLS
2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS
2-J16	6930	CAUTION PLATES & LABELS
2-L16	7250	QUARTER WINDOW & TRIMS
3-C03	7900	ACCESSORIES

6840 TRIMS & SCUFF PLATES

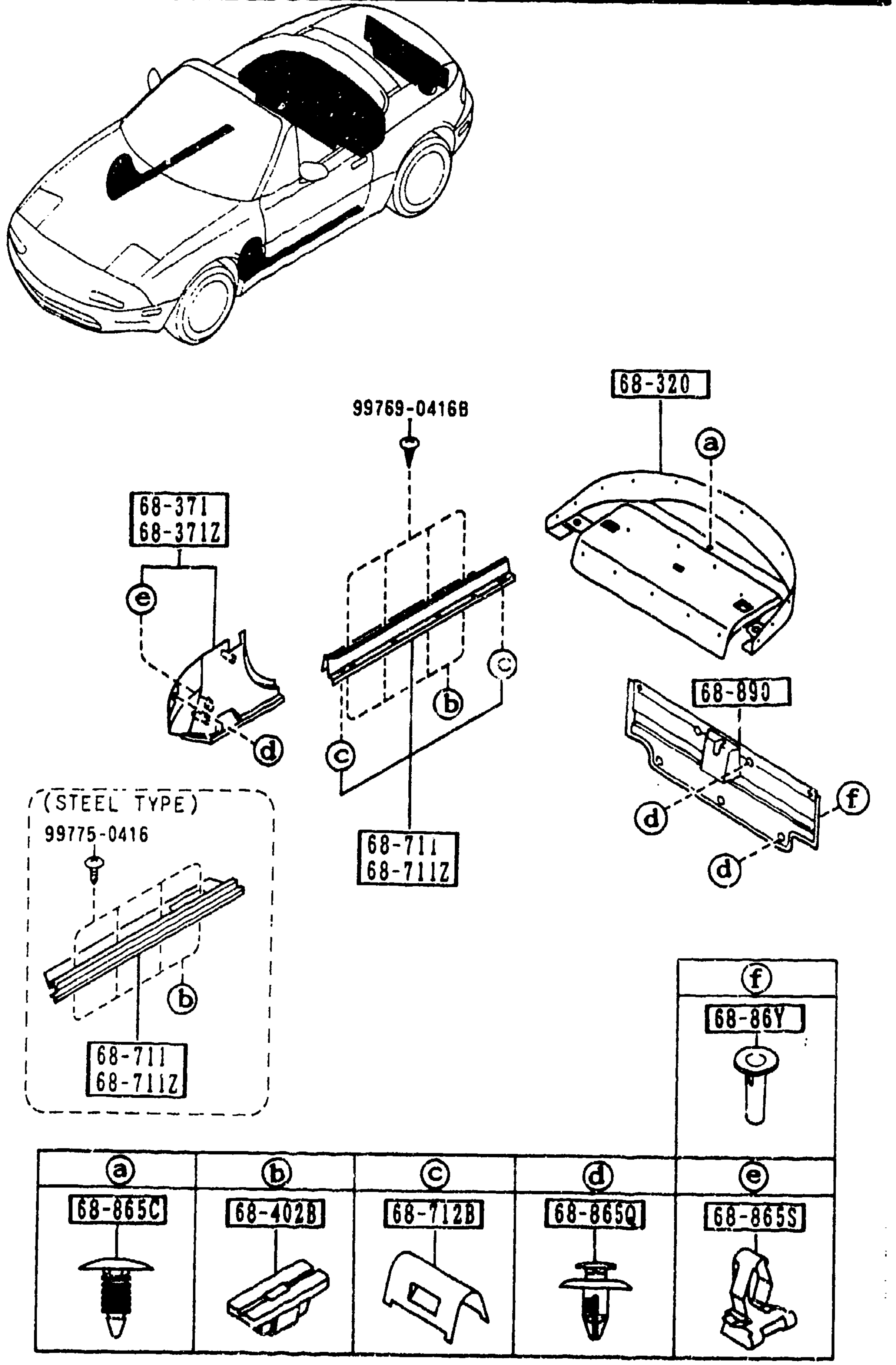


99769-0416B
68-320
ⓐ
68-371
68-371Z
ⓔ
ⓒ
ⓑ
ⓒ
ⓓ
68-890
ⓕ
ⓓ
ⓓ
68-711
68-711Z
(STEEL TYPE)
99775-0416
ⓑ
68-711
68-711Z
ⓕ
68-86Y
ⓐ
68-865C
ⓑ
68-402B
ⓒ
68-712B
ⓓ
68-865Q
ⓔ
68-865S

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-320		TRAY, REAR PACKAGE			
NA01-68-3F1B	1				
00		NA0 BLACK			
68-371		TRIM(R), FRONT SIDE			
NA01-68-370	1				
00		NA0 BLACK			
68-371Z		TRIM(L), FRONT SIDE			
NA01-68-390	1				
00		NA0 BLACK			
68-402B		GROMMET, SCREW			
FA54-68-719B	8				
68-711		PLATE(R), FRONT SCUFF			
NA01-68-710	1	BASE, (PLASTIC TYPE)			
00		NA0 BLACK			
68-711Z		PLATE(L), FRONT SCUFF			
NA01-68-720	1	BASE, (PLASTIC TYPE)			
00		NA0 BLACK			
68-712B		CLIP			
B235-68-712	4	BASE, (PLASTIC TYPE)			
68-86Y		CAP, SEAL-TRUNK END TRIM			
KA01-68-86Y	3				
68-865C		FASTENER			
G032-68-865A	20				
00		NA0 BLACK			
68-865Q		FASTENER			
GJ21-68-885A AN(GJ21-68-885B)	9				-9526
00		NA0 BLACK			
GJ21-68-885B	9				9526-

9526 NA35**-105742

6840 TRIMS & SCUFF PLATES

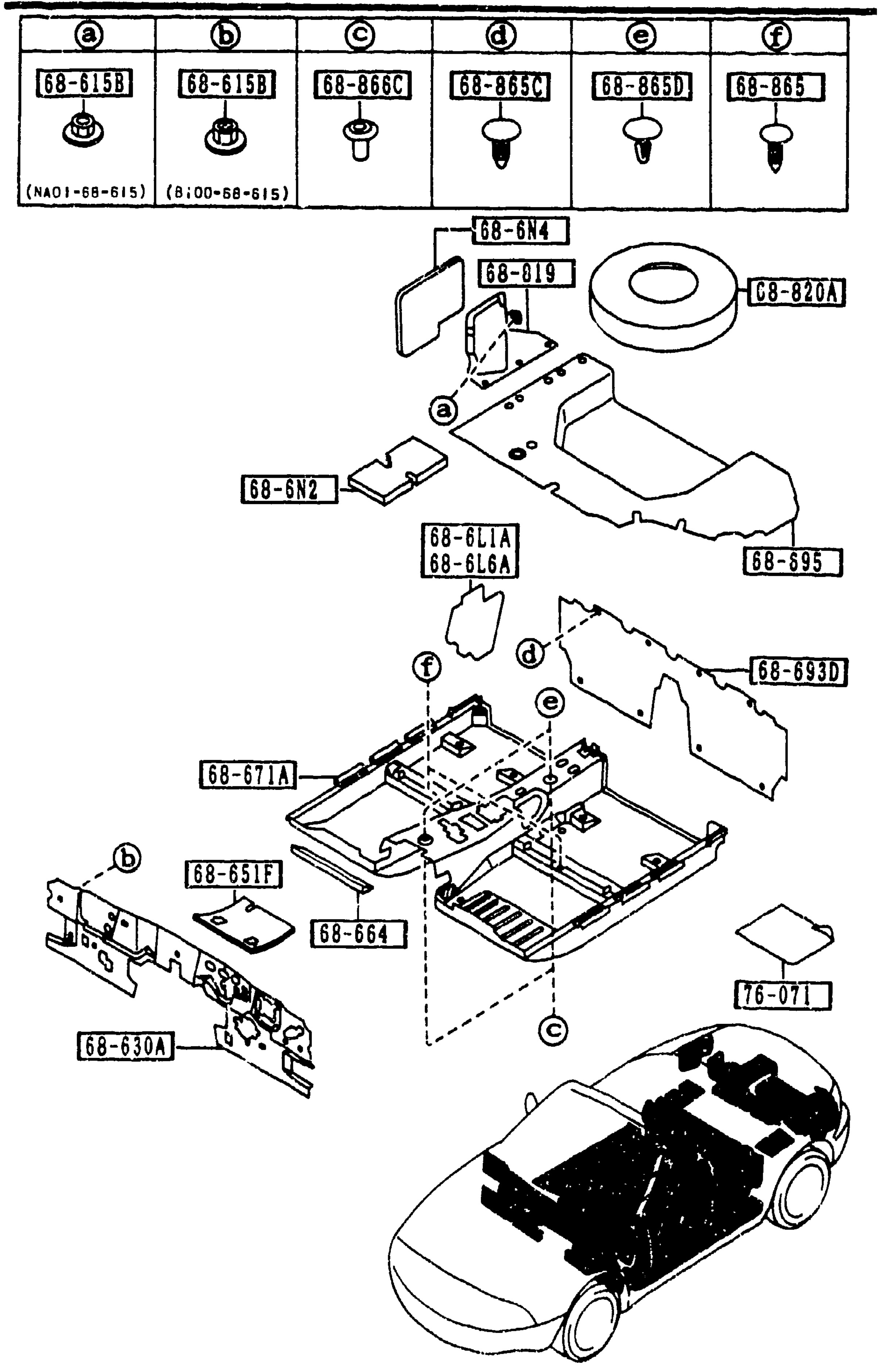


68-320
a
99769-0416B
68-371
68-371Z
e
c
b
d
c
68-890
d
f
d
68-711
68-711Z
(STEEL TYPE)
99775-0416
b
68-711
68-711Z
f
68-86Y
a
68-865C
b
68-402B
c
68-712B
d
68-865Q
e
68-865S

6840 -2 * TRIMS & SCUFF PLATES

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
00		NAO BLACK			
68-865S		CLIP,TRIM			
GJ12-68-865	2				
68-890		TRIM,TRUNK END			
NA01-68-891	1				
00		NAO BLACK			

6860 FLOOR MATS & PADS

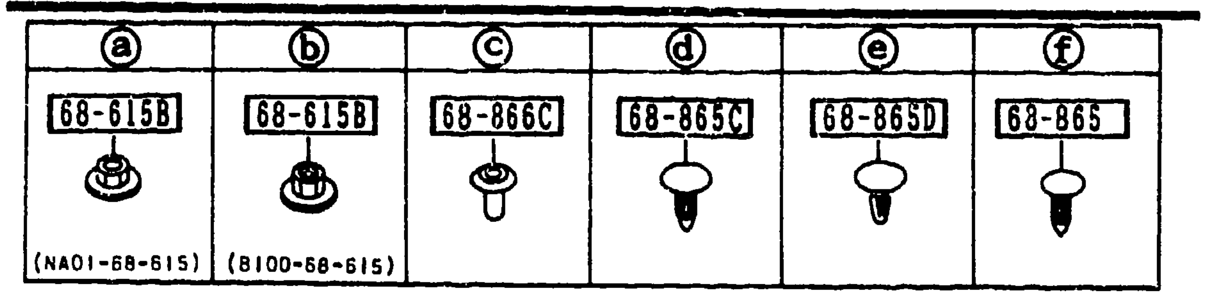

a
b
c
d
e
f
68-615B
68-615B
68-866C
68-865C
68-865D
68-865
(NA01-68-615)
(B100-68-615)
68-6N4
68-819
68-820A
a
68-6N2
68-695
68-6L1A
68-6L6A
f
d
68-693D
e
68-671A
b
68-651F
68-664
76-071
68-630A
c

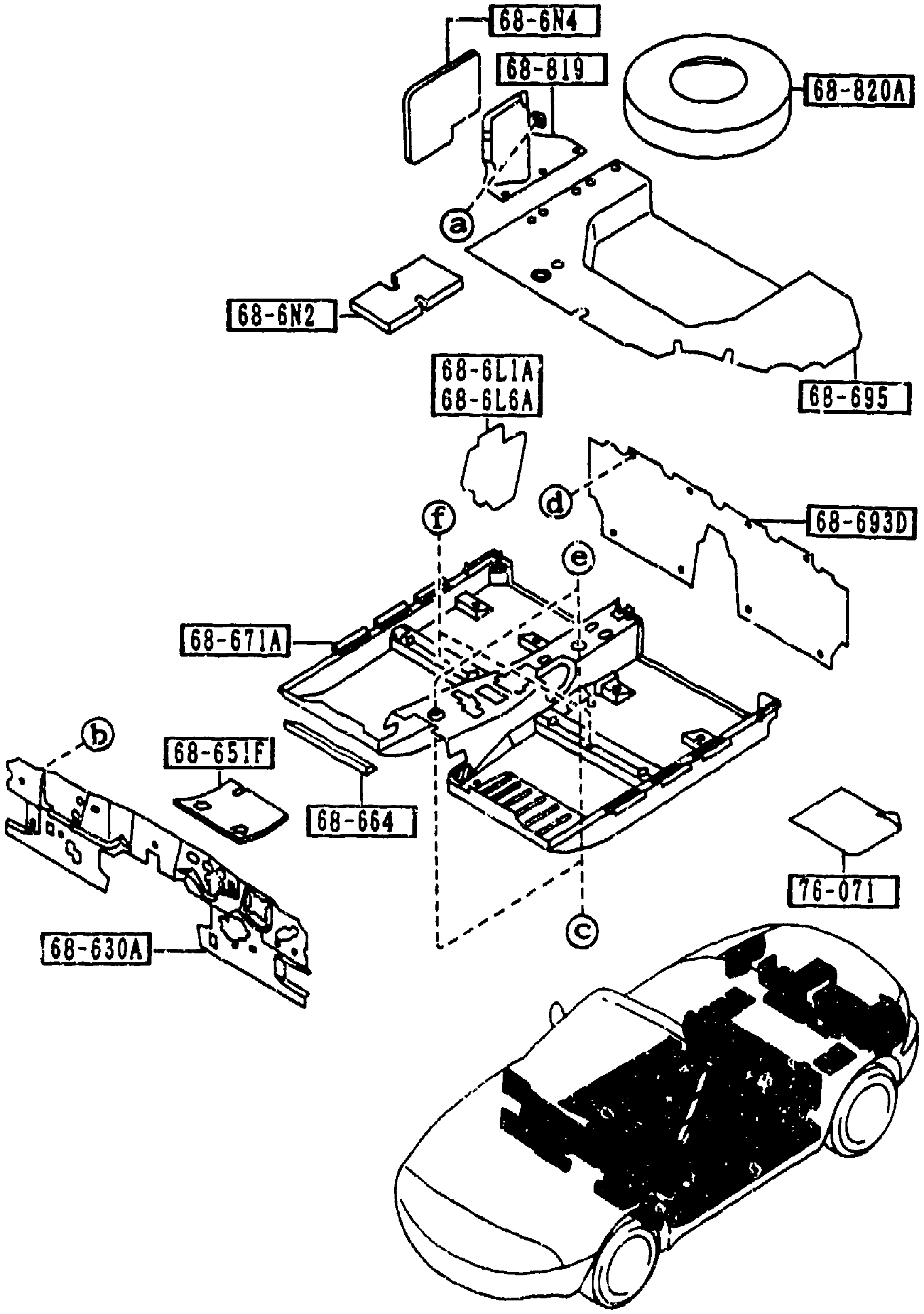
6860 -1 FLOOR MATS & PADS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-6L1A		COVER(R),HOLE			
NA01-68-6L1	1				
68-6L6A		COVER(L),HOLE			
NA01-68-6L6	1				
68-6N2		INSULATOR,RR FLOOR			
NA01-68-6N2	2				
68-6N4		PAD,RR FENDER			
NA01-68-6N4	1				
68-615B		NUT,FLANGE-CAP			
B100-68-615	5				
NA01-68-615	1				
68-630A		INSULATOR,DASHBOARD			
NA01-68-631A A (NA01-68-631B)	1				-0701
NA01-68-631B	1				0701-
68-651F		PAD,FRONT FLOOR			
FB01-68-652	1				
68-664		CUSHION,UNIT COVER			
NA01-68-664A	1				0701-
68-671A		MAT,FLOOR			
NA01-68-671 A (NA01-68-67XB)	1				-0401
00		NAO BLACK			
NA01-68-67XB	1				0401-
00		BLACK			
68-693D		MAT,REAR END			
NA01-68-693	1	(BLACK-USA)			
00		NAO BLACK			
68-695		MAT,TRUNK ROOM			
NA01-68-811	1				

0401 NA35**-146561
0701 NA35**-200041

6860 FLOOR MATS & PADS

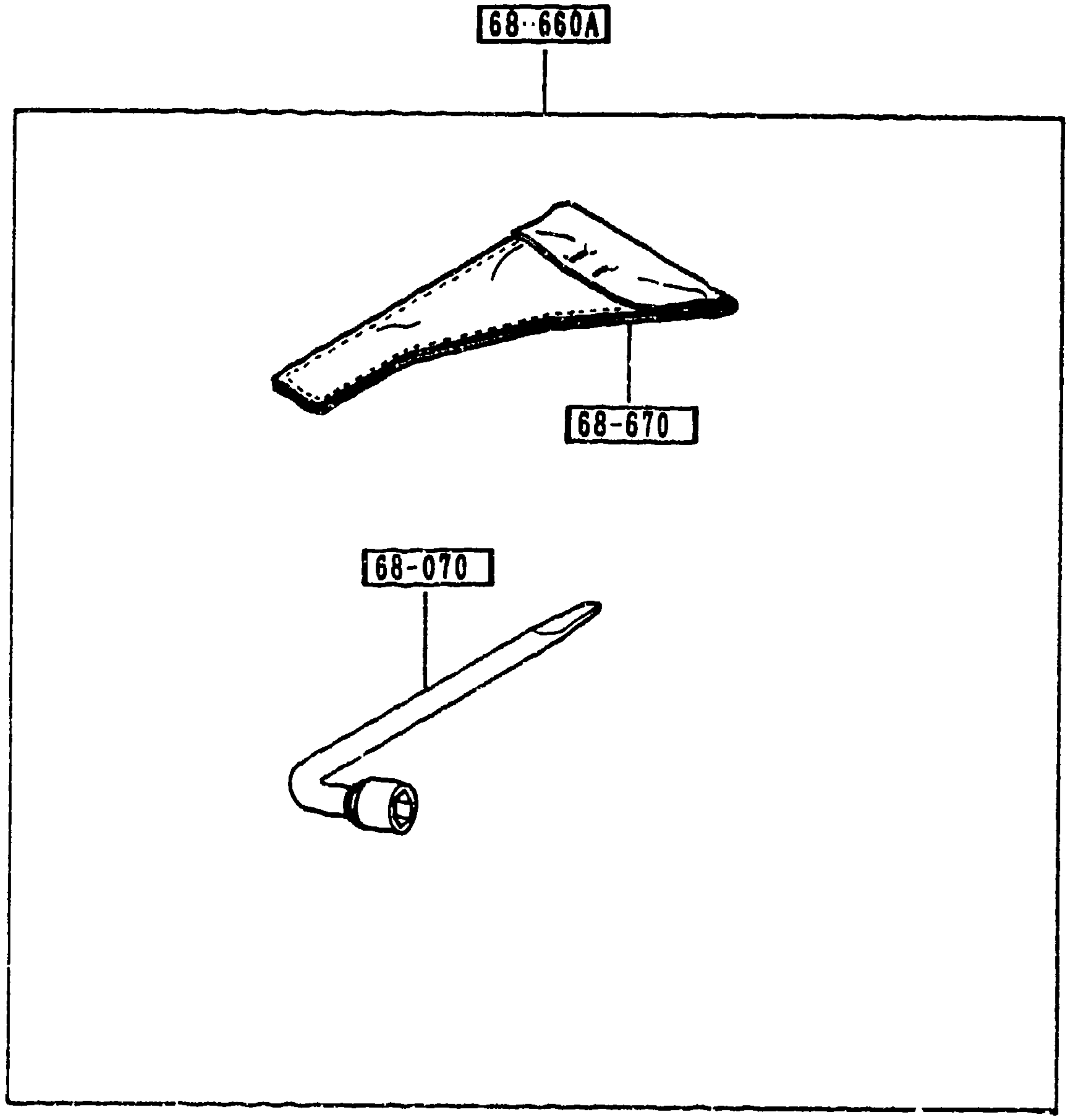

ⓐ
68-615B
(NA01-68-615)
ⓑ
68-615B
(B100-68-615)
ⓒ
68-866C
ⓓ
68-865C
ⓔ
68-865D
ⓕ
68-865


68-6N4
68-819
68-820A
ⓐ
68-6N2
68-695
68-6L1A
68-6L6A
ⓕ
ⓓ
68-693D
ⓔ
68-671A
ⓑ
68-651F
68-664
76-071
68-630A
ⓒ

6860 -2 * FLOOR MATS & PADS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					
00		NA0 BLACK			
68-819		COVER,BATTERY			
NA01-68-819B	1				
00		NA0 BLACK			
68-820A		COVER,SPARE TIRE			
NA01-68-8P9A	1				
68-865		FASTENER			
B003-68-865	2				
00		NA0 BLACK			
68-865C		FASTENER			
G032-68-865A	4				
00		NA0 BLACK			
68-865D		FASTENER			
S083-68-865A	6				
00		NA0 BLACK			
68-866C		FASTENER,SEAL			
B235-68-865A	6				
76-071		SILENCER,FLOOR			
0208-76-071	1	30CMX30CM			

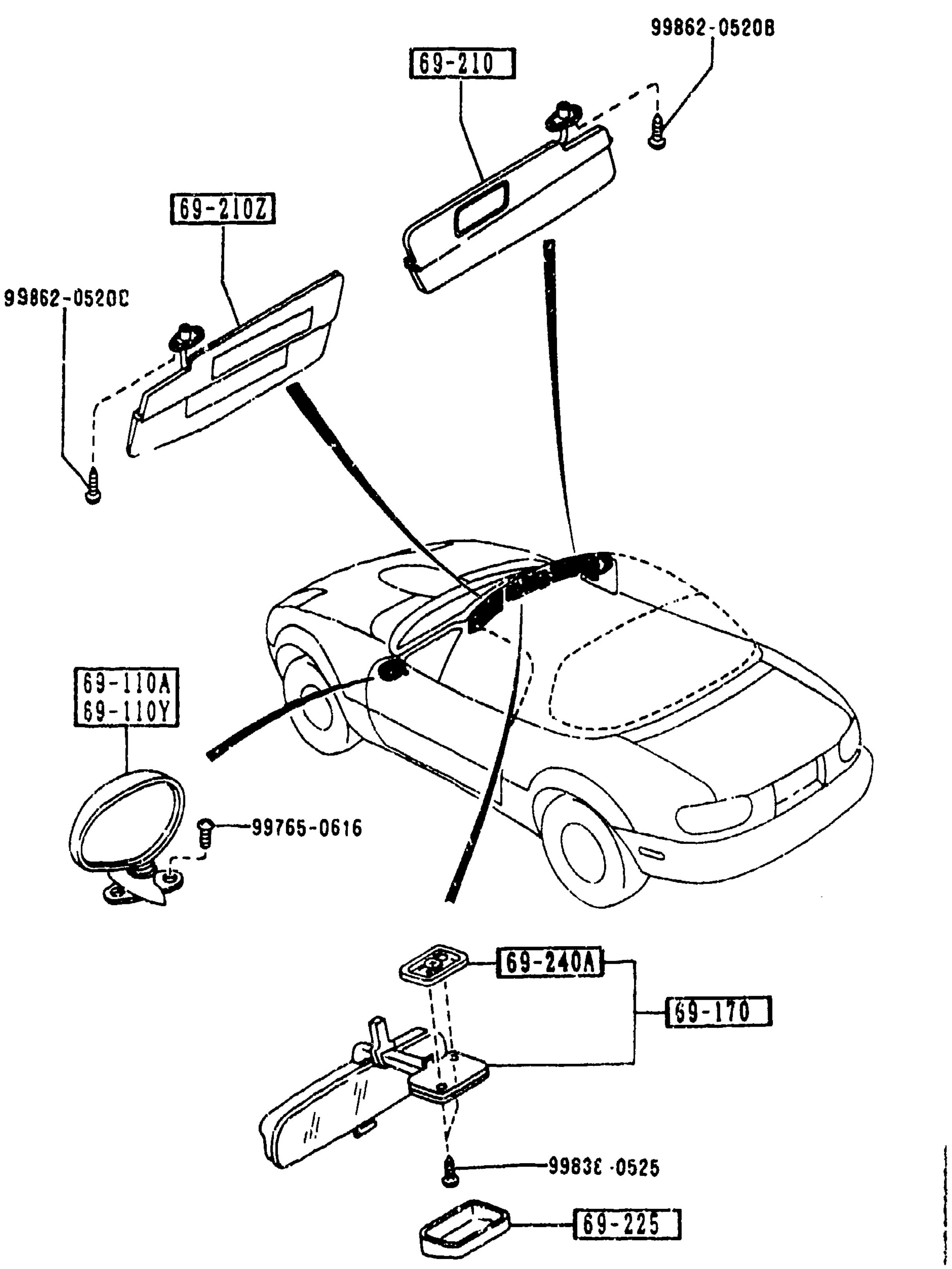
6870 SERVICE TOOLS



6870 -1 M SERVICE TOOLS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-070		WRENCH,HUB NUT			
0810-68-070D	1				-9421
NA01-68-070	1				9421-
68-660A		TOOL SET			
NA01-69-650	1				
68-670		BAG,TOOL			
8173-69-670	1				-9601
NA01-69-670	1				9601-

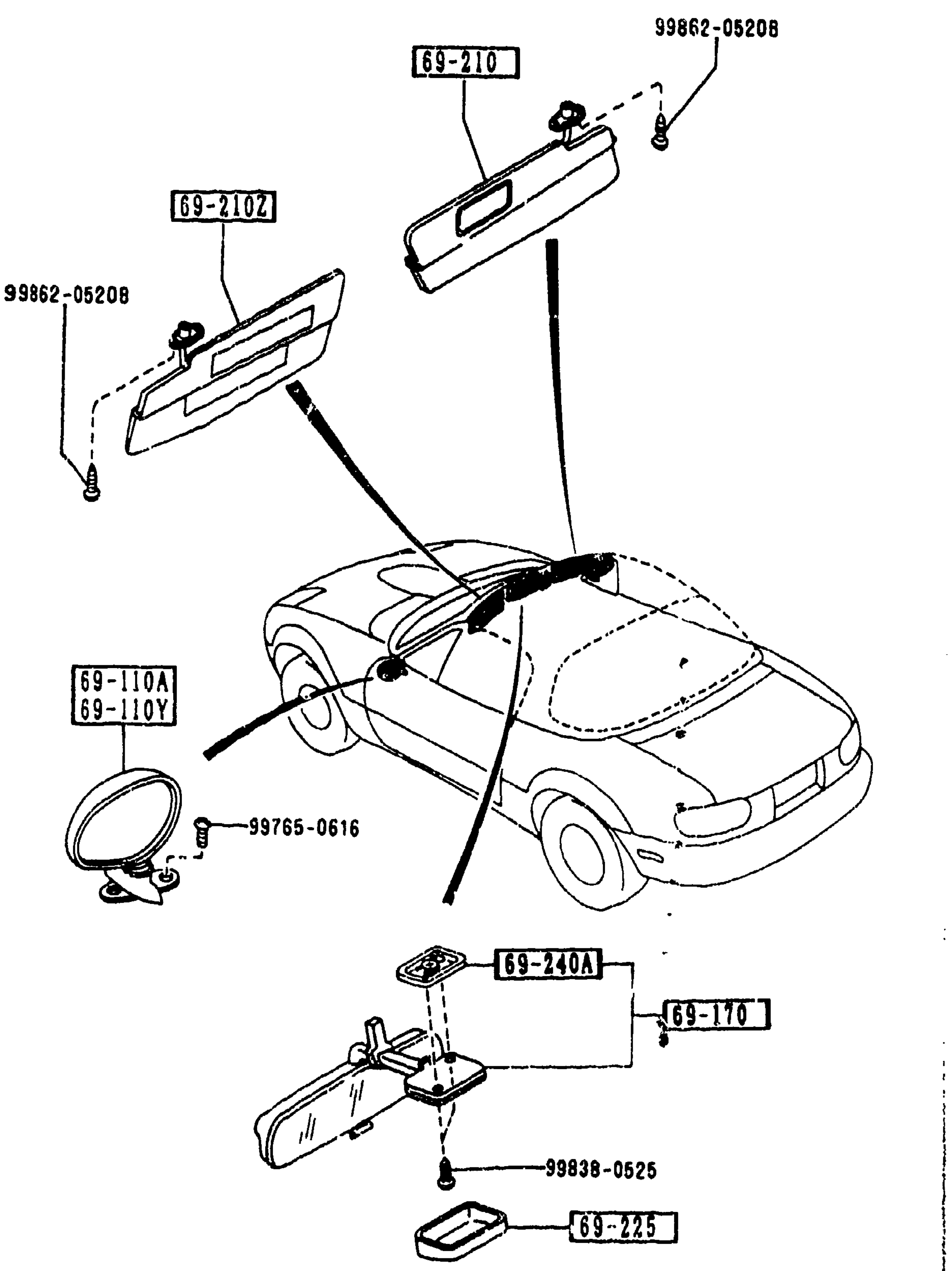
9421 NA35MM-101369
9601 NA35MM-106797


99862-0520B
69-210
69-210Z
99862-0520C
69-110A
69-110Y
99765-0616
69-240A
69-170
99838-0525
69-225

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
69-110A		MIRROR(R),DOOR			
NA05-69-120	1				
DU		DU MARINER BLUE			
HU		HU NEO GREEN			
SU		SU CLASSIC RED			
UC		UC CRYSTAL WHITE			
3L		3L SILVER STONE METALLIC			
69-110Y		MIRROR(L),DOOR			
NA05-69-180	1				
DU		DU MARINER BLUE			
HU		HU NEO GREEN			
SU		SU CLASSIC RED			
UC		UC CRYSTAL WHITE			
3L		3L SILVER STONE METALLIC			
69-170		MIRROR,INTERIOR			
NA01-69-220	1				
00		NAO BLACK			
69-210		SUN VISOR(R)			
NA01-69-270A AN(NA01-69-270B)	1				-9601
02		NAO BLACK			
NA01-69-270B	1				9601-
02		NAO BLACK			
69-210Z		SUN VISOR(L)			
NA01-69-320B AN(NA01-69-320C)	1				-9601
02		NAO BLACK			
NA01-69-320C	1	(W/AIR BAG)			9601-
02		NAO BLACK			
NA07-69-320B	1	(W/O AIR BAG)			0701-
02		NAO BLACK			

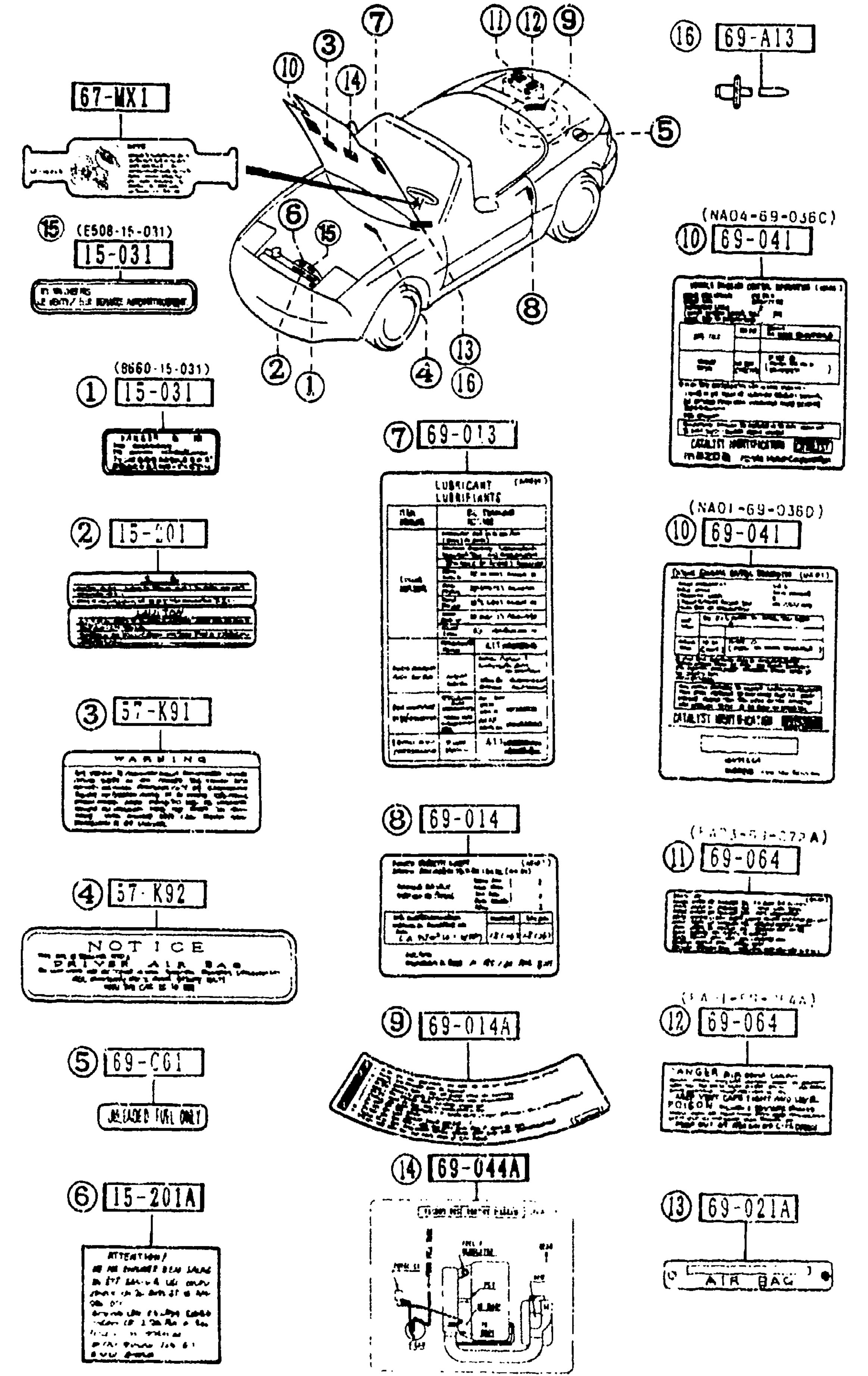
9601 NA35**-106797
0701 NA35**-200041

6900 VISORS,ASSIST HANDLES & MIRRORS


99862-05208
69-210
69-210Z
99862-05208
69-110A
69-110Y
99765-0616
69-240A
69-170
99838-0525
69-225

6900 -2 K VISORS,ASSIST HANDLES & MIRRORS

PART NO	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
69-225		COVER,INTERIOR MIRROR			
GJ21-69-225	1				
00		NAO BLACK			
69-240A		BASE,INTERIOR MIRROR			
NA01-69-240	1				

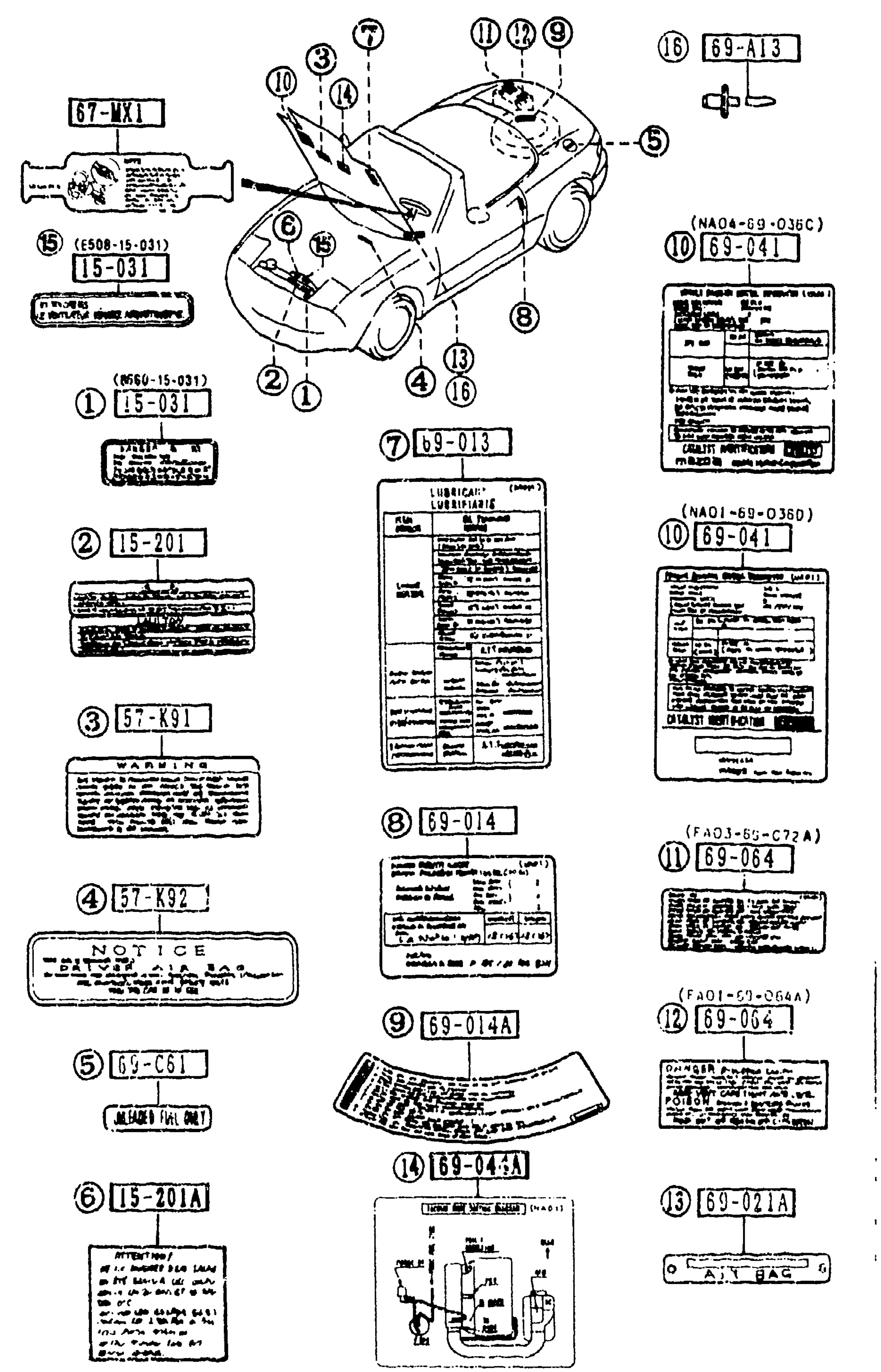

67-MX1
⑮ (E508-15-031) 15-031
① (B660-15-031) 15-031
② 15-201
③ 57-K91
WARNING
④ 57-K92
NOTICE
DRIVER AIR BAG
⑤ 69-C61
UNLEADED FUEL ONLY
⑥ 15-201A
ATTENTION
⑦ 69-013
LUBRICANT
LUBRIFIANTS
⑧ 69-014
⑨ 69-014A
⑭ 69-044A
⑯ 69-A13
⑩ (NA04-69-036C) 69-041
CATALYST
mazda
⑩ (NA01-69-036D) 69-041
CATALYST
⑪ 69-064
⑫ 69-064
DANGER
POISON
⑬ 69-021A
AIR BAG
⑦ ⑪ ⑫ ⑨ ③ ⑩ ⑭ ⑤ ⑥ ⑮ ⑧ ② ① ④ ⑬ ⑯

6930 -1 CAUTION PLATES & LABELS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-031		LABEL,CAUTION			
B660-15-031	1				
E508-15-031	1				
15-201		PLATE,CAUTION			
0488-15-201	1				
15-201A		LABEL,CAUTION-RADTOR			
8791-15-201	1				
57-K91		LABEL'A',CAUTION-A/B			
NA01-57-K91	1	(W/AIR BAG)			-0701
57-K92		LABEL'B',CAUTION-A/B			
NA01-57-K92	1	(W/AIR BAG)			-0701
67-MX1		LABEL,CAUTION-AIR BAG			
NA01-67-MX1	1	(W/AIR BAG)			
69-A13		RIVET,BUND-MODEL PLATE			
GJ21-69-A13	2				0701-
69-C61		LABEL,UNLEADED FUEL			
UB40-69-C61	1				
69-013		LABEL,OIL			
NA01-69-D21A A (NA01-69-D21C)	1				-0201
NA01-69-D21C	1				0201-
69-014		LABEL,TIRE			
NA01-69-014	1				
69-014A		LABEL,TEMPORARY TIRE			
BF68-69-073	1	ENGLISH			
69-021A		PLATE,CAUTION			
NA01-69-0[illegible]	1	(VIN PLATE-USA)			
69-041		LABEL,EMISSION			

0201 NA35**-137180
0701 NA35**-200041

6930 CAUTION PLATES & LABELS

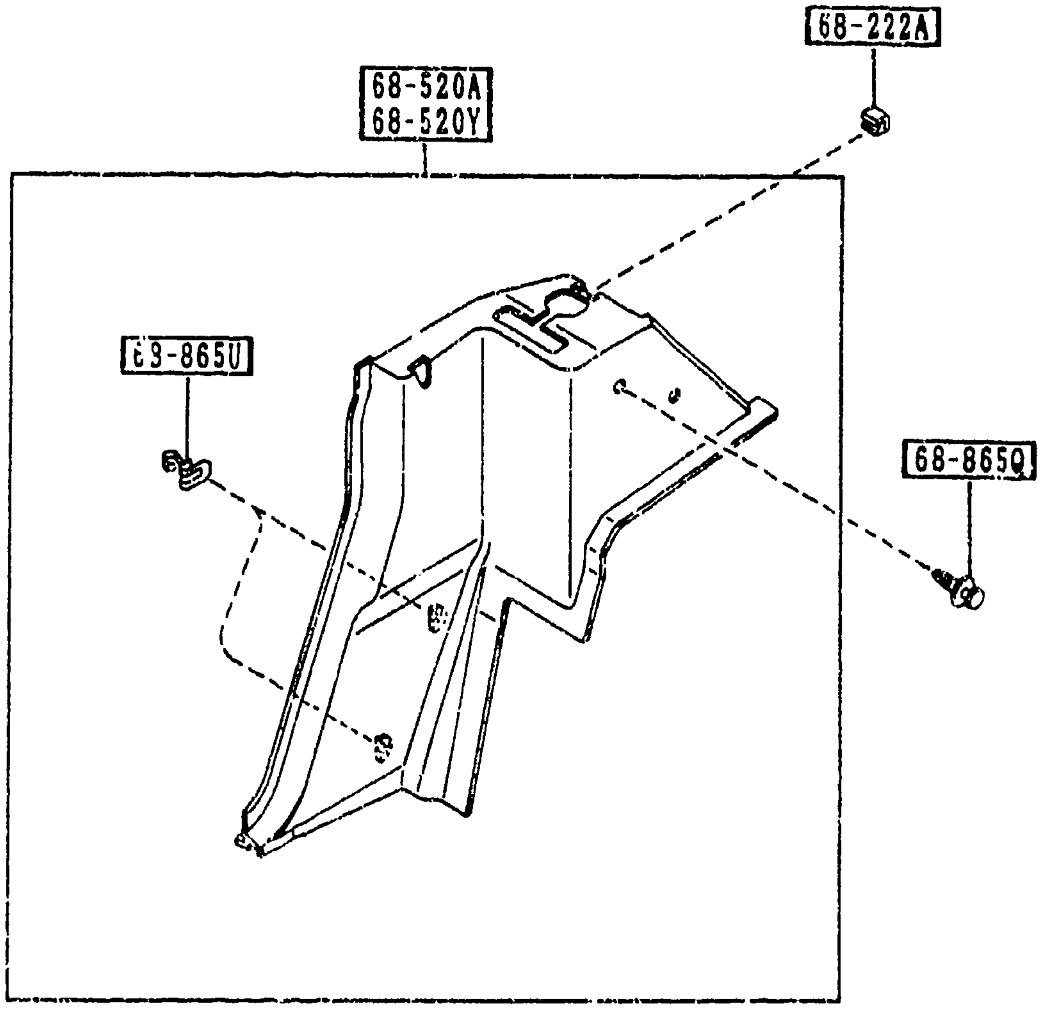

67-MX1
⑮ (E508-15-031)
⑮ 15-031
① (8660-15-031)
① 15-031
② 15-201
③ 57-K91
WARNING
④ 57-K92
NOTICE
DRIVER AIR BAG
⑤ 69-C61
UNLEADED FUEL ONLY
⑥ 15-201A
⑦ 69-013
LUBRICANT
⑧ 69-014
⑨ 69-014A
⑭ 69-044A
⑯ 69-A13
(NA04-69-036C)
⑩ 69-041
CATALYST IDENTIFICATION
(NA01-69-036D)
⑩ 69-041
CATALYST IDENTIFICATION
(FA03-69-C72A)
⑪ 69-064
(FA01-69-064A)
⑫ 69-064
DANGER
POISON
⑬ 69-021A
AIR BAG
⑩
③
⑭
⑦
⑪
⑫
⑨
⑤
⑥
⑮
②
①
④
⑬
⑯
⑧

6930 -2 * CAUTION PLATES & LABELS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-69-036A A (NA01-69-036C)	1				-9C20
NA04-69-036 A (NA04-69-036B)	1				-9C20
NA01-69-036C	1	(CALIF)			9C20-0701
NA04-69-036B	1	(FED)			9C20-0701
NA01-69-036D	1	(CALIF)			0701-
NA04-69-036C	1	(FED)			0701-
69-044A		LABEL,VAC.DIAPHRAGM			
NA01-69-044	1	(CALIF)			-0701
69-064		LABEL,BATTERY			
FA01-69-064A	1	(W/BATTERY LABEL)			
FA03-69-C72 A (FA03-69-C72A)	1				-9728
FA03-69-C72A	1	(W/BATTERY LABEL)			9728-

9728 NA35**-115823
9C20 NA35**-132590
0701 NA35**-200041

7250 QUARTER WINDOW & TRIMS



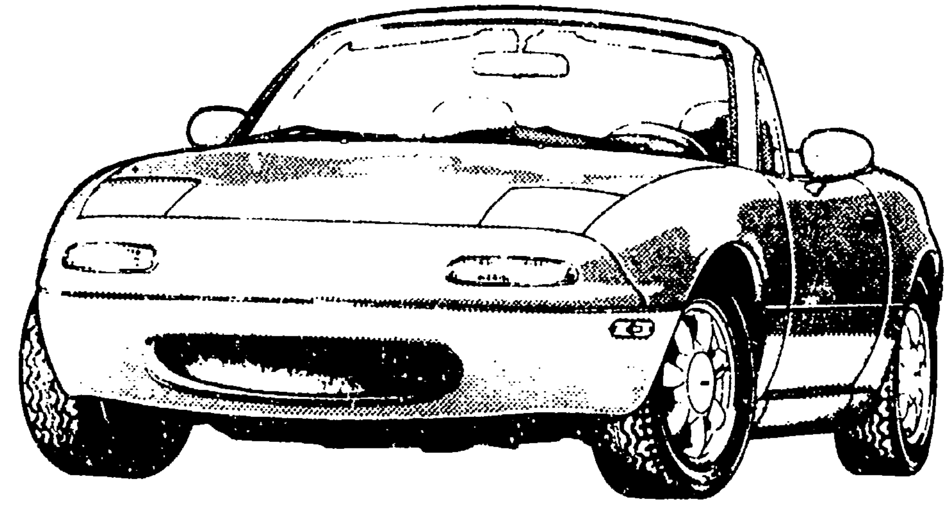
7250 -1 * QUARTER WINDOW & TRIMS

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-222A		COVER,HOLE			
NA01-68-222A	2				
00		NA0 NA1 BLACK			
68-520A		TRIM(R),QUARTER			
NA01-68-520A	1	BASE, (W/O DETACHABLE TOP)			
00		NA0 NA1 BLACK			
NA02-68-520A	1	OPTION, (W/DETACHABLE TOP)			
00		NA0 NA1 BLACK			
68-520Y		TRIM(L),QUARTER			
NA01-68-550A	1	BASE, (W/O DETACHABLE TOP)			
00		NA0 NA1 BLACK			
NA02-68-550A	1	OPTION, (W/DETACHABLE TOP)			
00		NA0 NA1 BLACK			
68-865Q		FASTENER			
GJ21-68-885A AN(GJ21-68-885B)	2				-952
00		NA0 BLACK			
GJ21-68-885B	2				9526-
00		NA0 BLACK			
68-865U		CLIP,TRIM			
GJ21-68-865	4				

9526 NA35**-105742

Parts Catalog

Mazda MX-5 MIATA
U.S.A.
('90)



(NA35**-100001-200000)

Feb.'92 (FINAL)

Catalog No. AU-NA01-07

mazda

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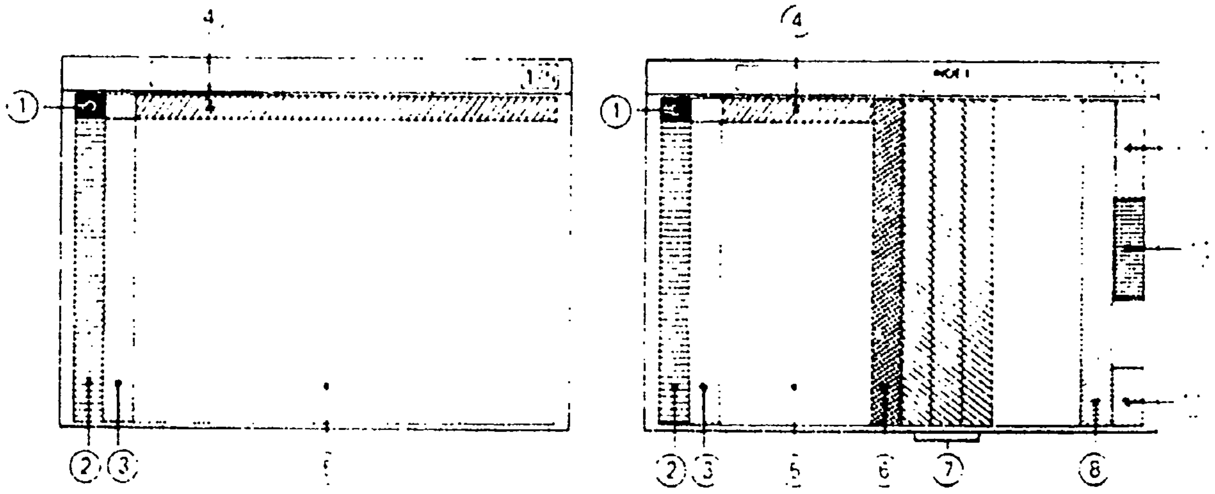
LAYOUT OF CONTENTS

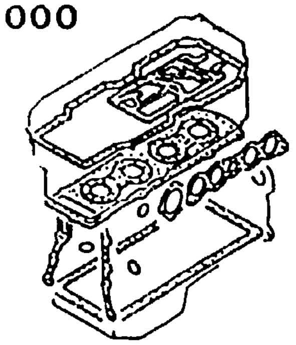
- The following is a typical example of the layout of contents on Mazda microfiche parts catalogs

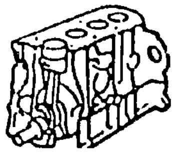


① · Layout of contents
② · Pictorial Index
③ · Master Section No. Index
④ · Section No. Index for the Column
⑤ · Illustration & Text
⑥ · Part No. Index
⑦ · Alphabetical Index
⑧ · Model Identification
⑨ · Vehicle Identification System

PICTORIAL INDEX

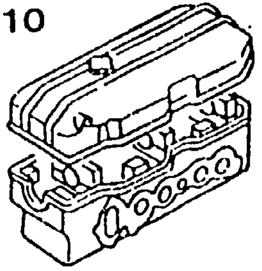
1000





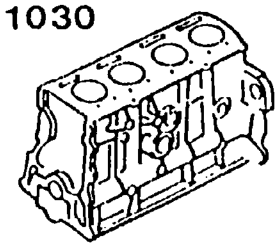
SHORT ENGINE & GASKET SETS

1 1010



CYLINDER HEAD & COVER

2 1030



CYLINDER BLOCK

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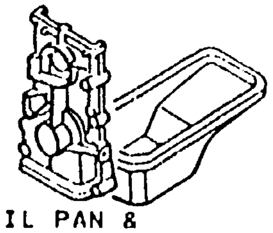

OIL PAN & TIMING COVER

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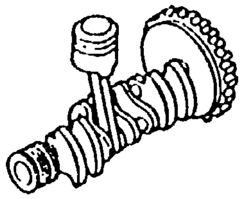
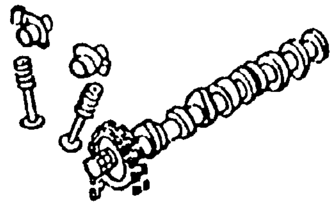


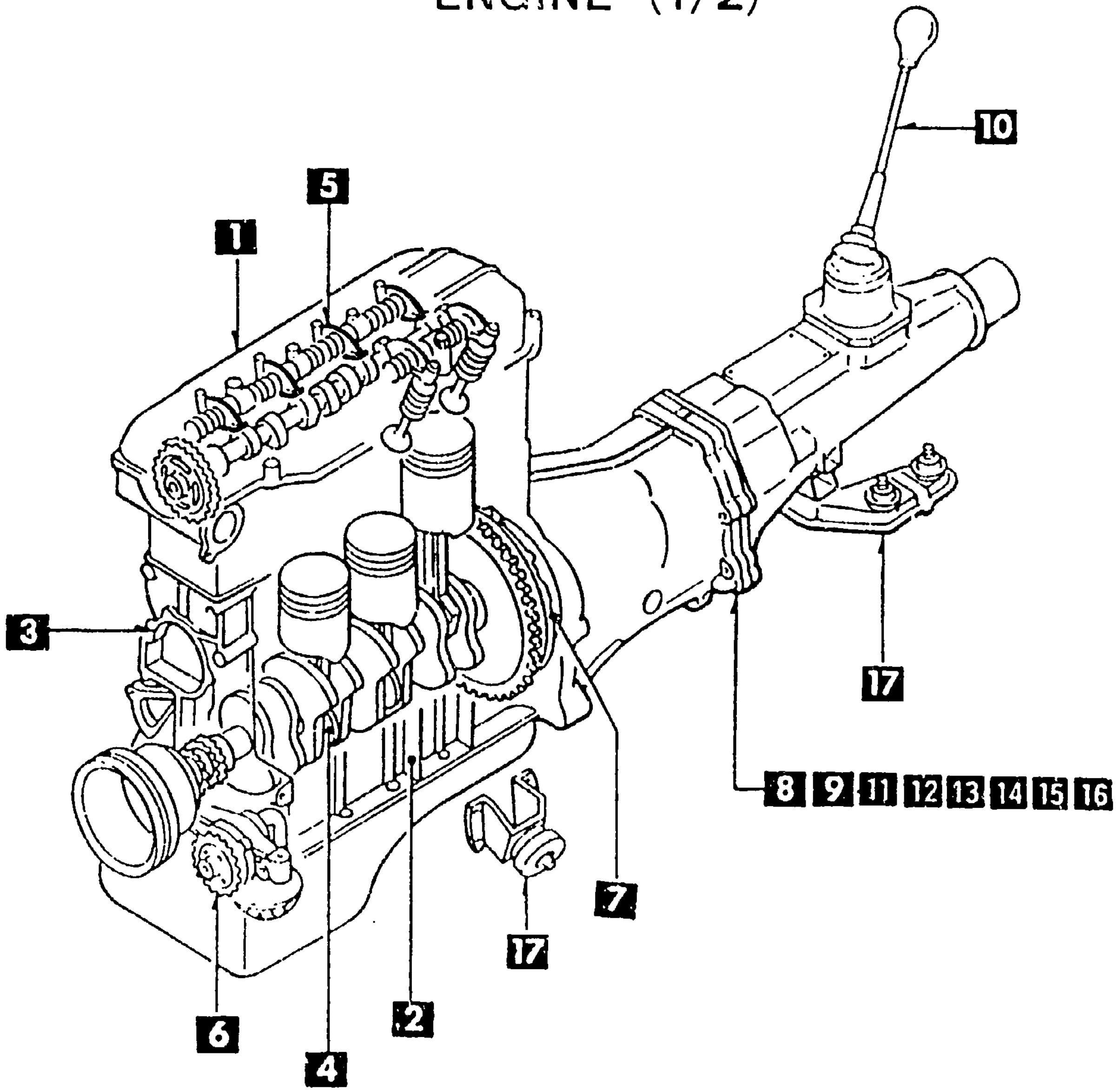
PISTON, CRANKSHAFT & FLYWHEEL

5 1200

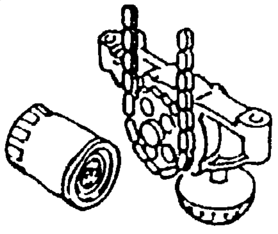


VALVE SYSTEM

ENGINE (1/2)

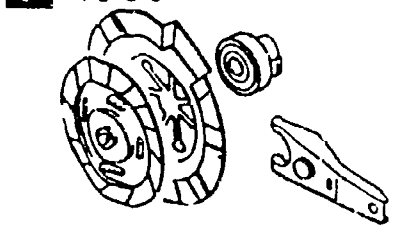


6 1400



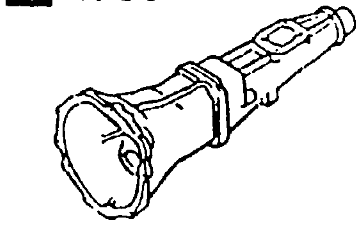
OIL PUMP & FILTER

7 1600



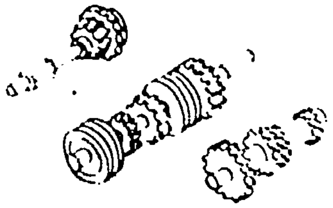
CLUTCH DISC & COVER (MANUAL)

8 1700



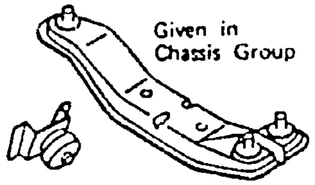
TRANSMISSION CASE (MANUAL)

9 1710



TRANSMISSION GEARS (MANUAL)

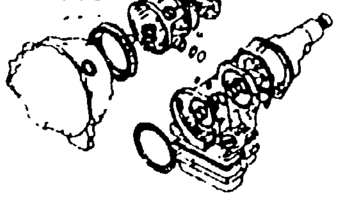
17 3900



Given in Chassis Group

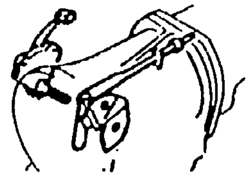
ENGINE & T/MISSION MOUNTINGS

16 1960



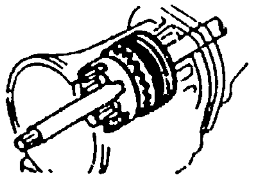
GASKET & SEAL KIT (AUTOMATIC)

15 1950



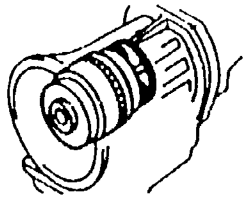
MANUAL LINKAGE SYSTEM (AUTOMATIC)

14 1940



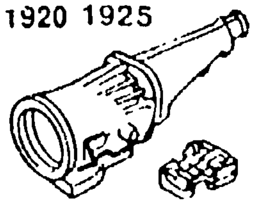
GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)

13 1930



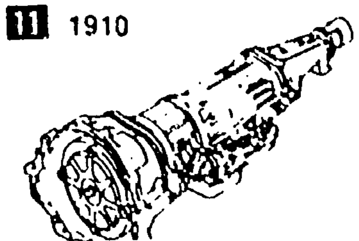
CLUTCH & PLANETARY GEARS (AUTOMATIC)

12 1920 1925



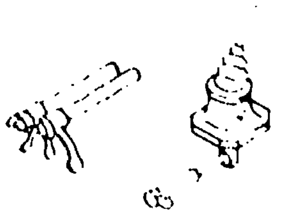
TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)

11 1910



TORQUE CONVERTER, OIL PUMP & PIPINGS (AUTOMATIC)

10 1720

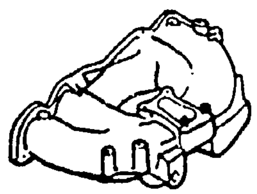


CHANGE CONTROL SYSTEM (MANUAL)

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

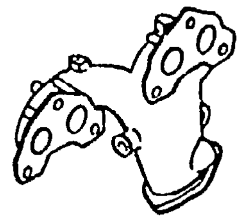
PICTORIAL INDEX

1 1300



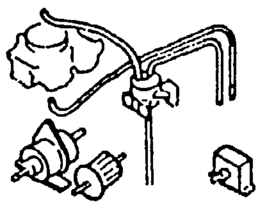
INLET MANIFOLD

2 1310



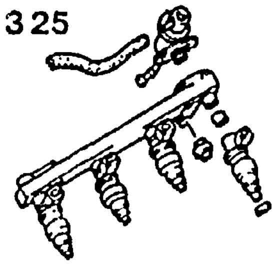
EXHAUST MANIFOLD

3 1320



FUEL SYSTEM

4 1325



FUEL DISTRIBUTOR

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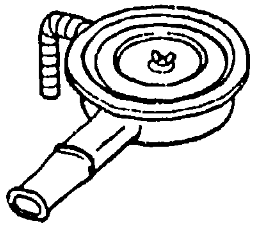

AIR CLEANER

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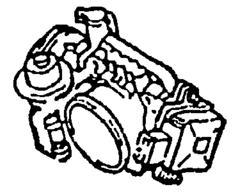
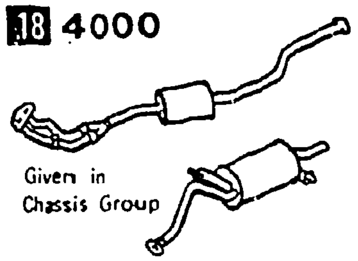


THROTTLE BODY

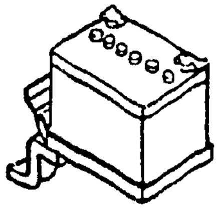
18 4000



Given in Chassis Group

EX. SYSTEM

17 1850



BATTERY

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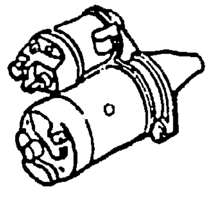

STARTER

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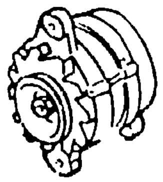
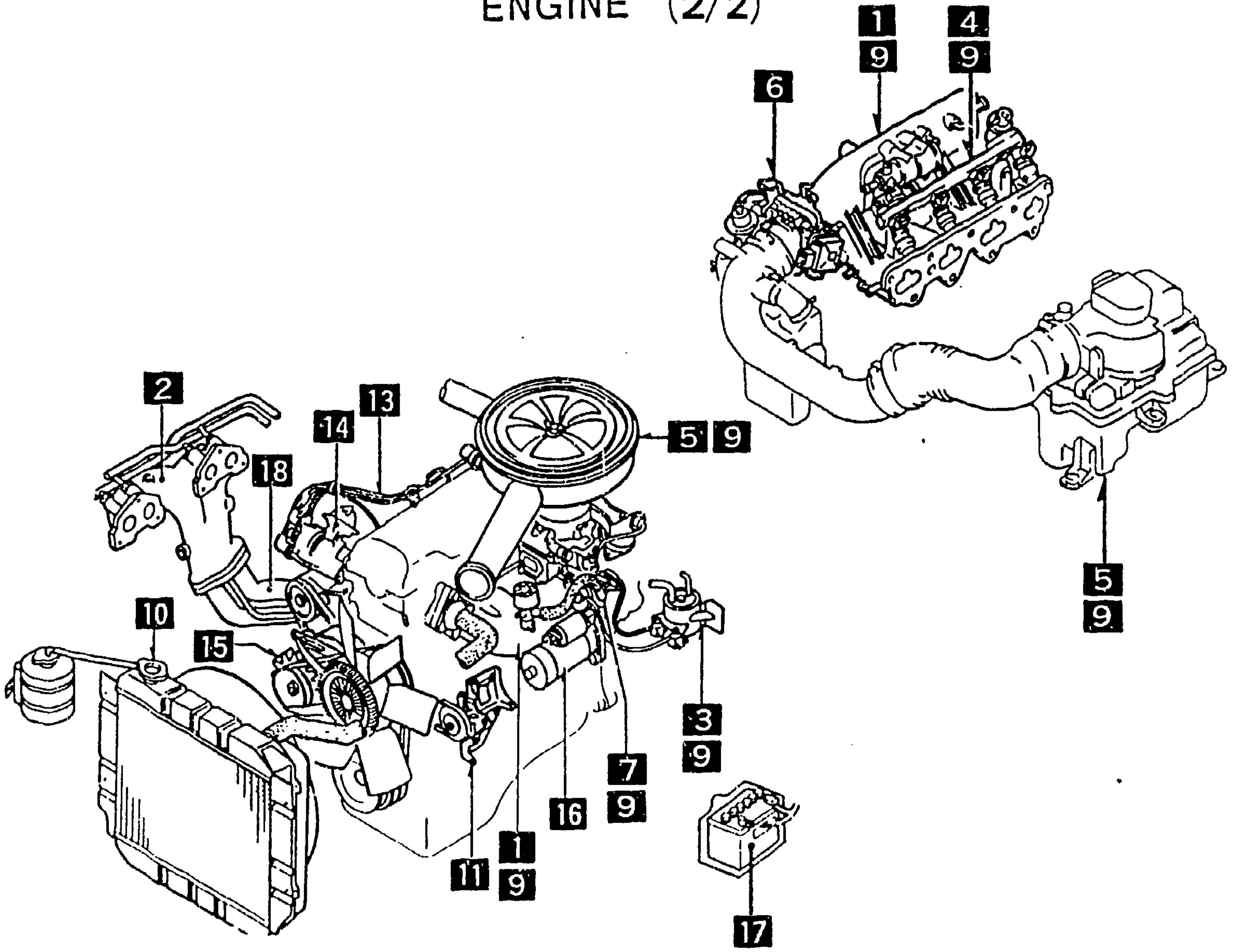
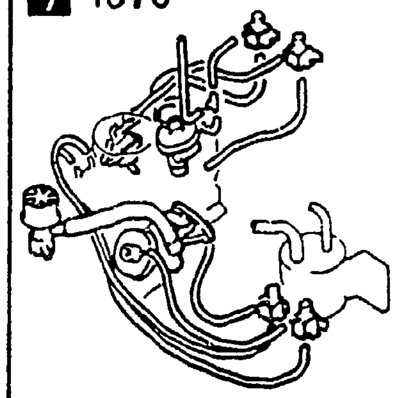


ALTERNATOR

ENGINE (2/2)



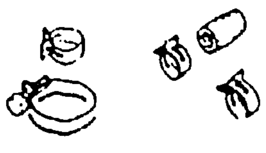
7 1370



EMISSION CONTROL SYSTEM
(INLET SIDE)

8

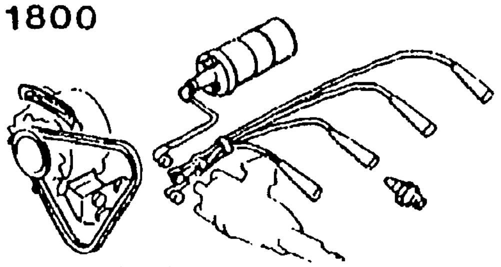
9 1399



CAP & HOSE CLIP
'INLET & EXHAUST SIDE'

14

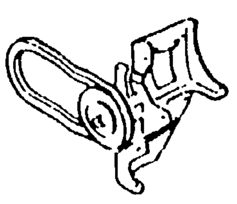
13 1800



ENGINE ELECTRICAL SYSTEM

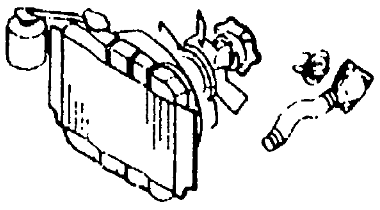
12

11 1580



BRACKET, PULLEY & BELT

10 1500

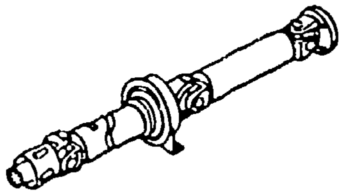


COOLING SYSTEM

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

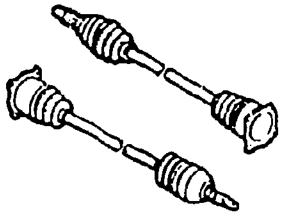
PICTORIAL INDEX

1 2505



REAR PROPELLER SHAFT

2 2550



REAR DRIVE SHAFTS

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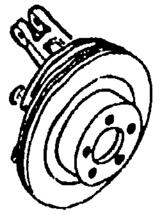
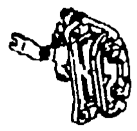


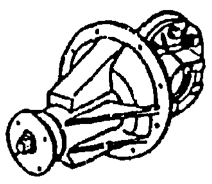
REAR AXLE

3 2610



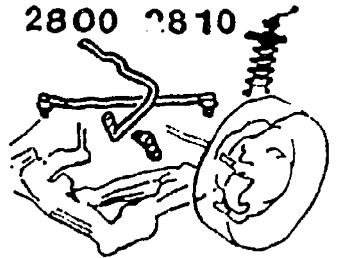
REAR BRAKE MECHANISMS

4 2710



REAR DIFFERENTIALS

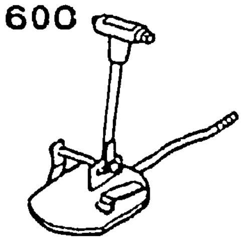
5 2800 2810



REAR SUSPENSION MECHANISMS
REAR STABILIZER

CHASSIS (1/2)

16 4600



CHANGE CONTROL SYSTEM (AUTOMATIC)

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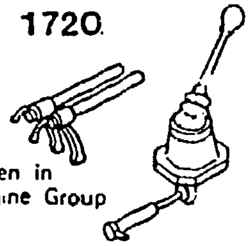
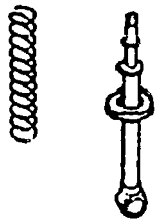


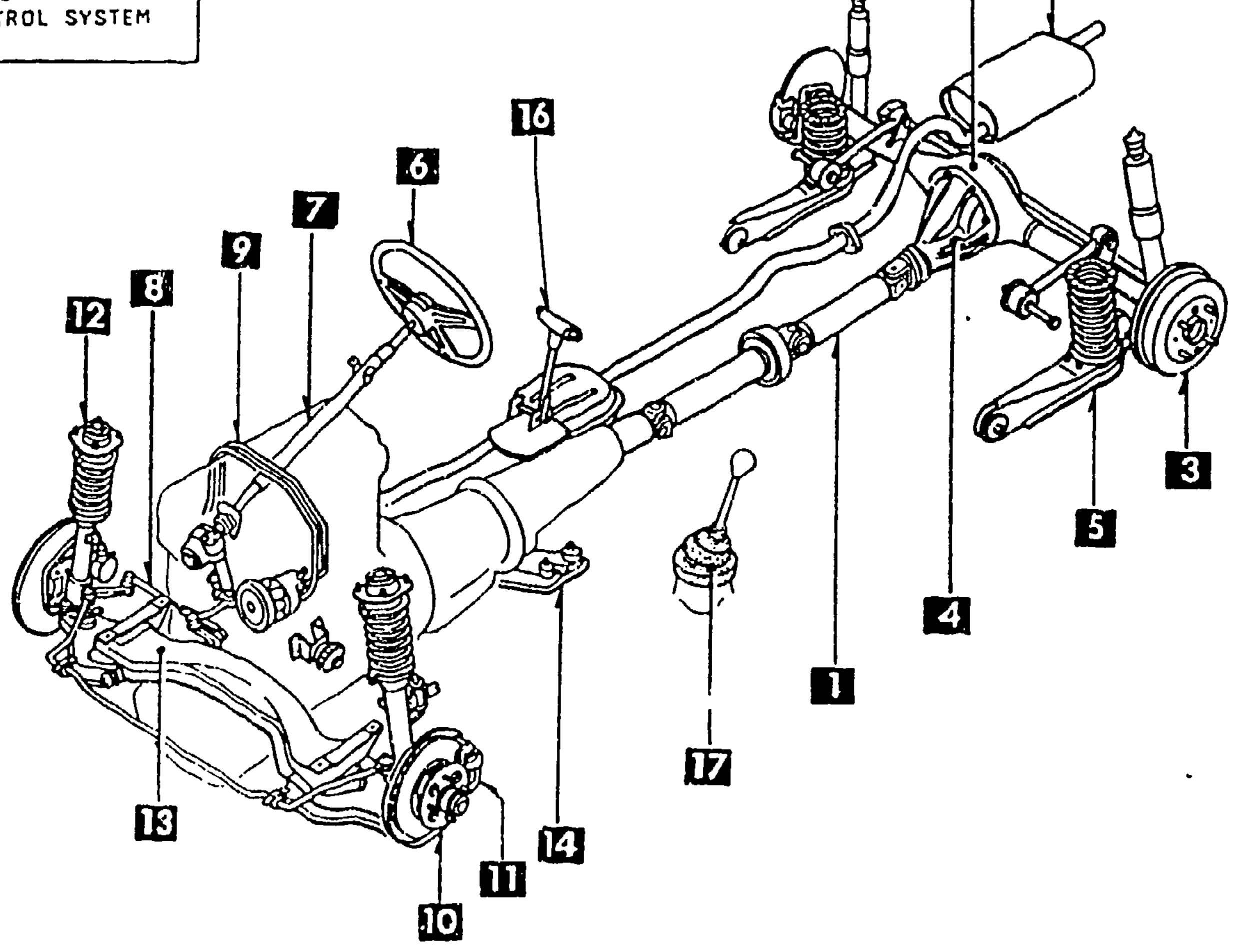
Given in Engine Group

CHANGE CONTROL SYSTEM (MANUAL)

2801



REAR SPRING & DAMPER



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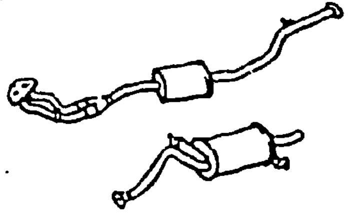
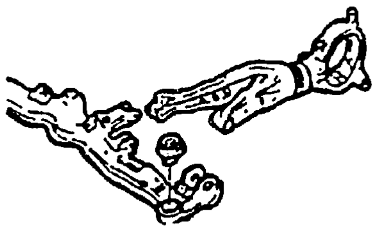


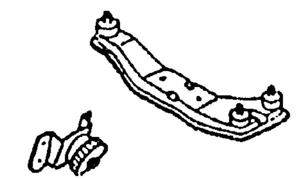
EXHAUST SYSTEM

2830



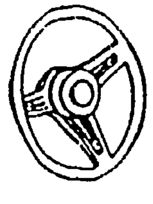
REAR LOWER ARMS & SUB FRAME

14 3900



ENGINE & T/MISSION MOUNTINGS

6 3200



STEERING WHEEL

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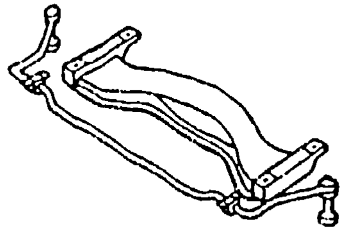
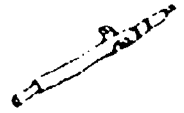


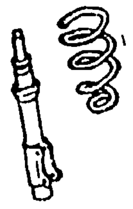
CROSSMEMBER & STABILIZER

7 3210



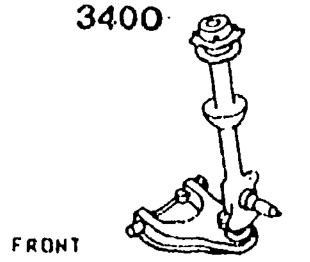
STEERING COLUMN & SHAFTS

12 3401



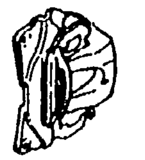
FRONT SPRING & DAMPER

3400



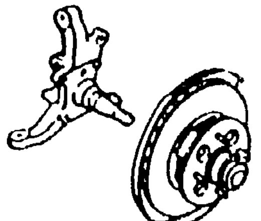
FRONT SUSPENSION MECHANISMS

11 3310



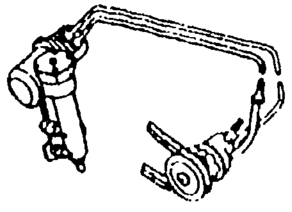
FRONT BRAKE MECHANISMS

10 3300



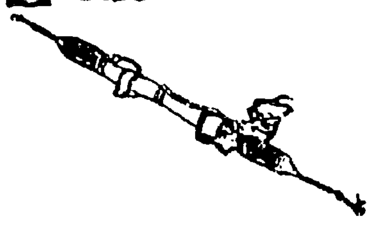
FRONT AXLE

9 3240



POWER STEERING SYSTEM

8 3220



STEERING GEAR

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

PICTORIAL INDEX

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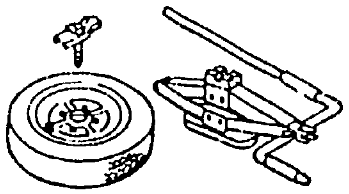
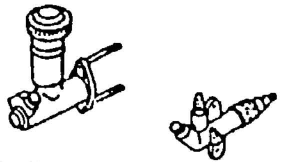


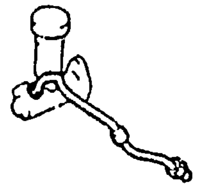
TIRES & JACK

2 4140



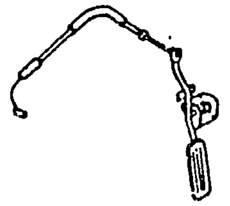
CLUTCH RELEASE
& MASTER CYLINDERS
(MANUAL TRANSMISSION)

4145



CLUTCH PIPINGS
(MANUAL TRANSMISSION)

3 4160



ACCELERATOR CONTROL SYSTEM

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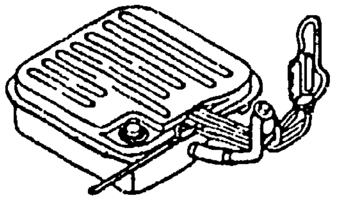

FUEL TANK

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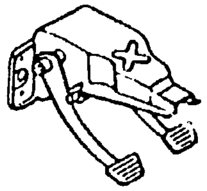
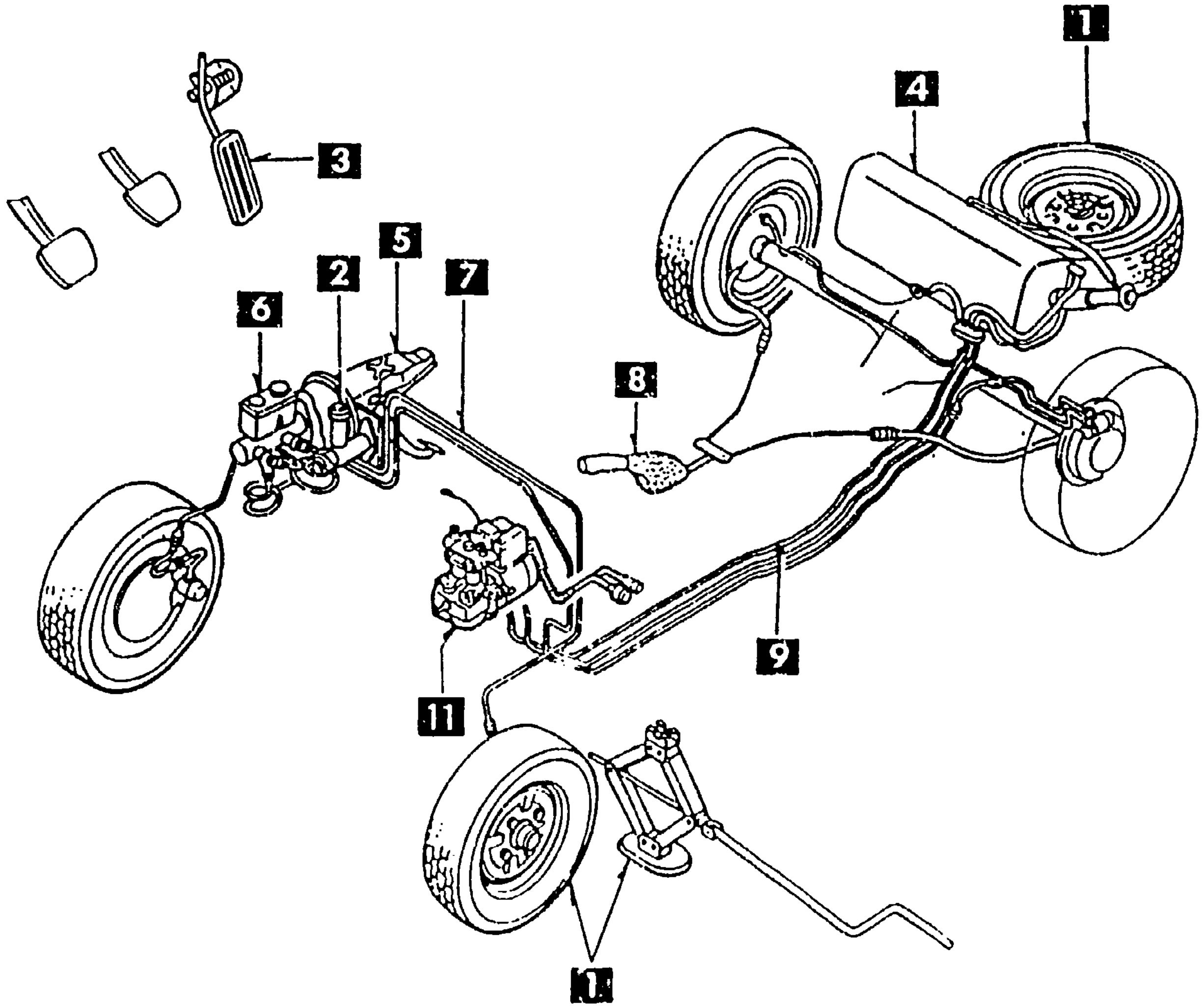


CLUTCH & BRAKE PEDALS

CHASSIS (2/2)



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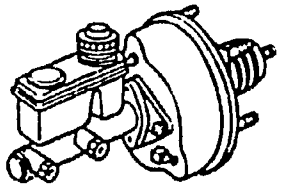

BRAKE MASTER CYLINDER
& POWER BRAKE

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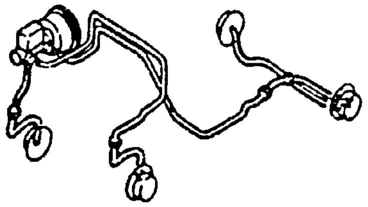

BRAKE PIPINGS

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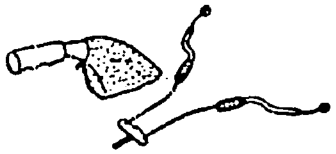

PARKING BRAKE SYSTEM

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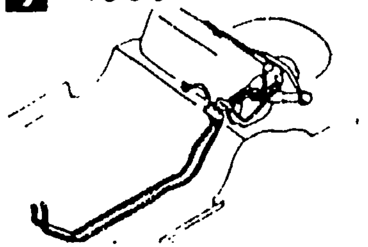

FUEL PIPINGS

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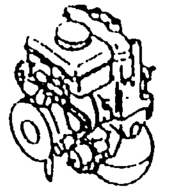

ANTILOCK BRAKE SYSTEM

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

PICTORIAL INDEX

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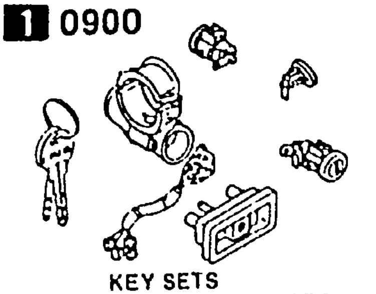

KEY SETS

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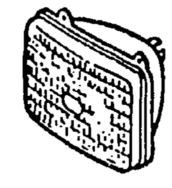

HEAD LAMPS

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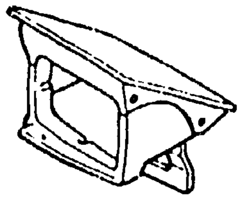

HEAD LAMP RETRACTORS

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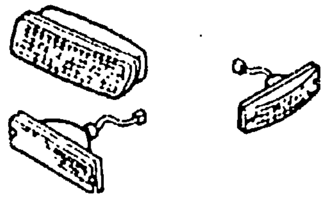

FRONT COMBINATION LAMPS

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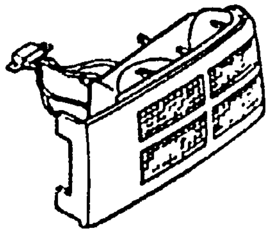

REAR COMBINATION LAMPS

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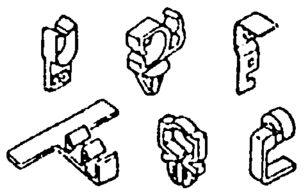

WIRING HARNESS CLAMPS

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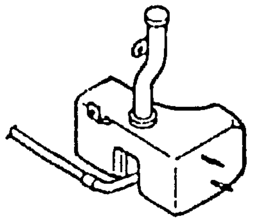

WINDSHIELD WASHER

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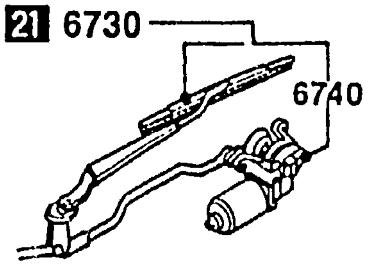

WINDSHIELD WIPERS

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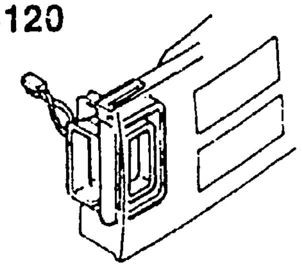

LICENSE LAMPS

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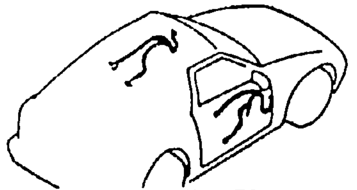
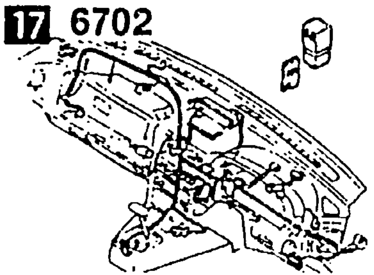


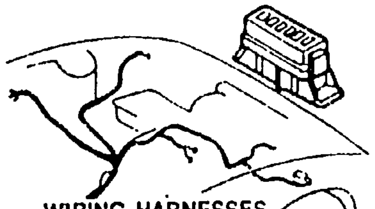
WIRING HARNESSES
(DOOR, FLOOR/CEILING)

17 6702



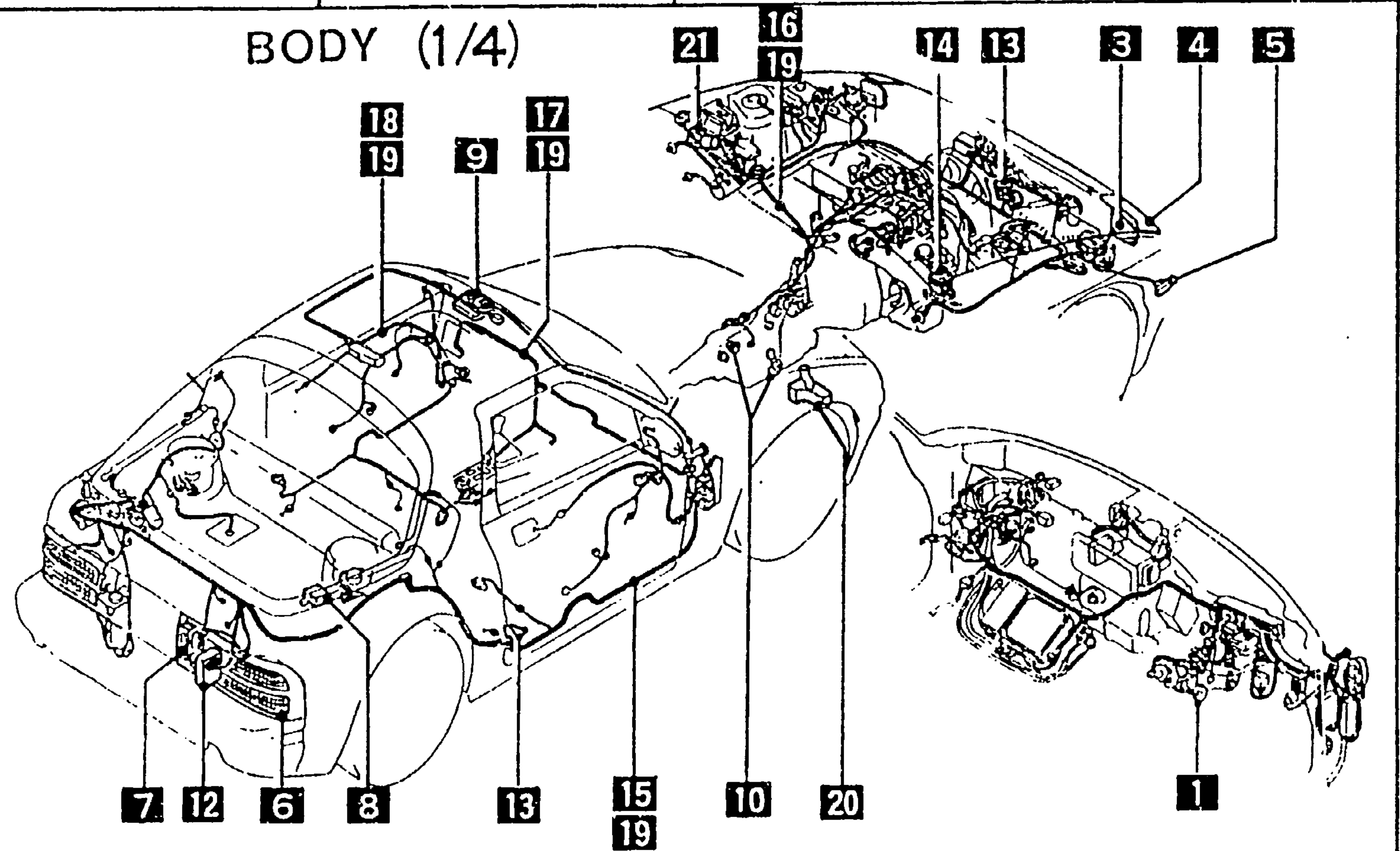
WIRING HARNESSES (DASHBOARD)

16 6701



WIRING HARNESSES
(ENGINE & T/MISSION)

BODY (1/4)



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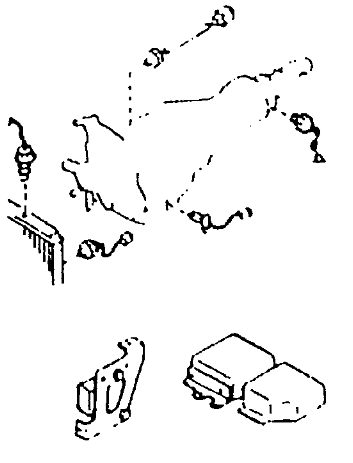

SWITCHES & RELAYS (ENGINE)

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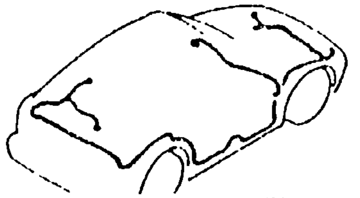
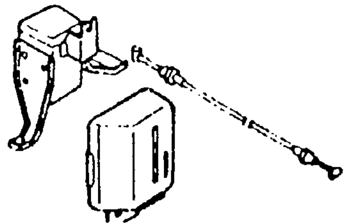


WIRING HARNESSES
(FRONT & REAR)

14 6640



AUTO CRUISE CONTROL SYSTEM

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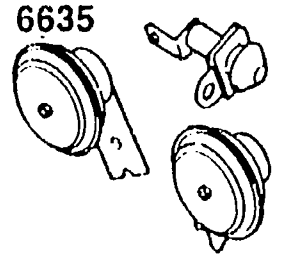

DOOR SWITCH & HORNS

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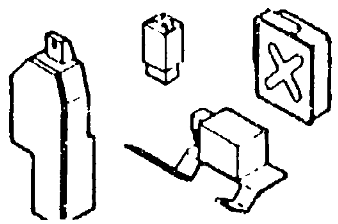


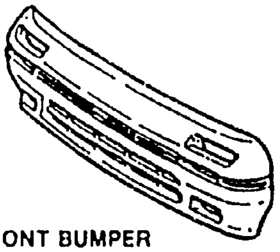
RELAYS & UNIT (BODY)

11

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

PICTORIAL INDEX

1 5000



FRONT BUMPER

2

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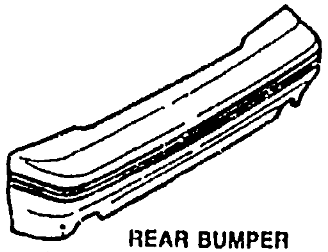

REAR BUMPER

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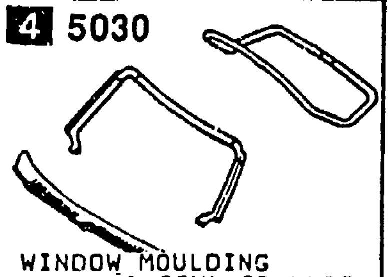

WINDOW MOULDING & COWL GR.LLES

5

6

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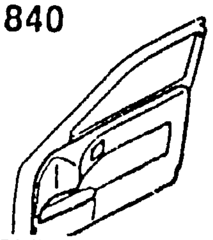
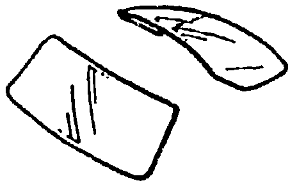


FRONT DOOR TRIMS & RELATED PARTS

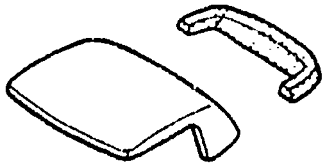
21

22 6300



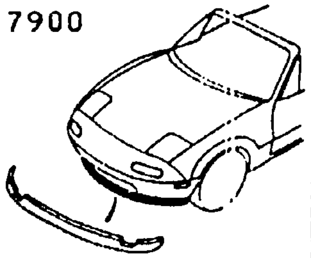
WINDOW GLASSES

23 6330



SUNROOF

24 7900



ACCESSORIES

7

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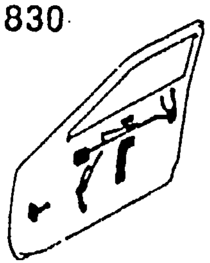
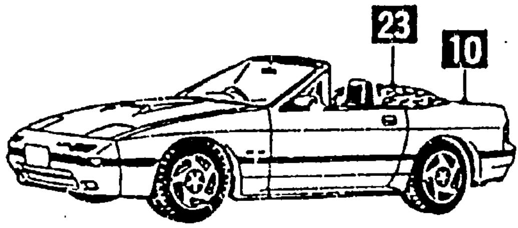
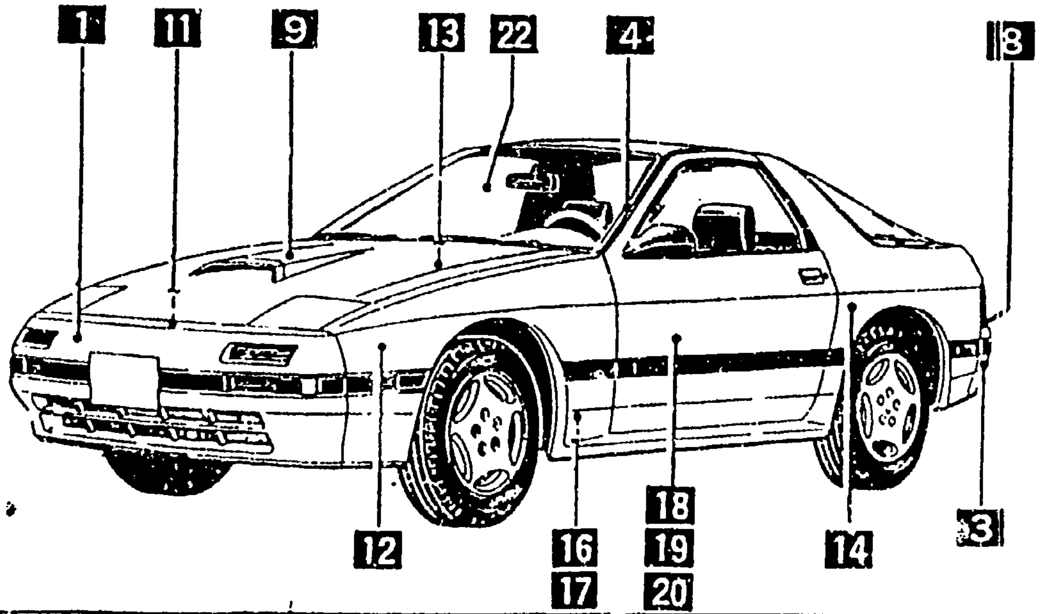


FRONT DOOR MECHANISMS

BODY (2/4)





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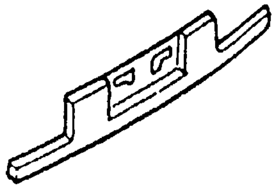

REAR FINISHER

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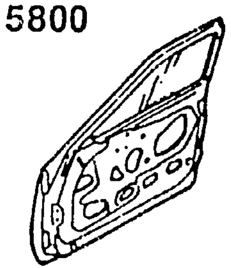

FRONT DOORS

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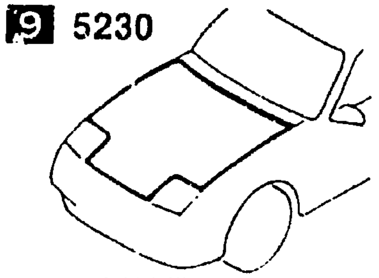

BONNET

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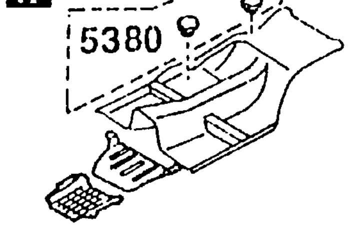

FLOOR ATTACHMENTS

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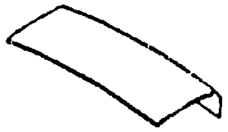

TRUNK LID

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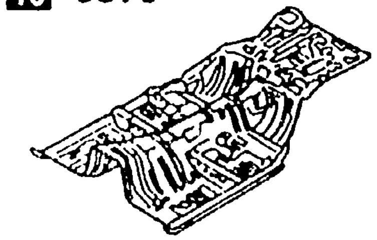
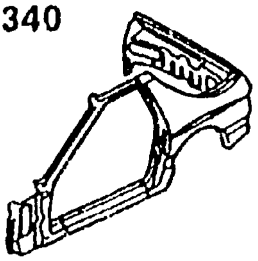


BODY PANELS (FLOOR)

15

14 5340



BODY PANELS (SIDE)

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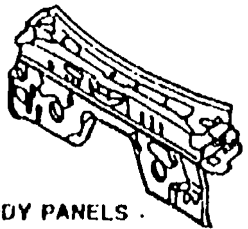

BODY PANELS (DASH & COWL PANEL)

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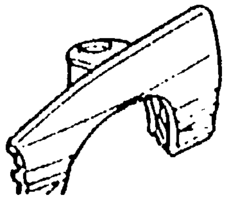
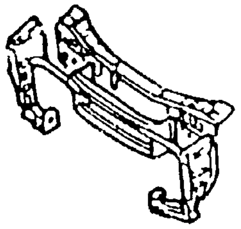


BODY PANELS (FENDER & WHEEL APRON)

11 5310



BODY PANELS (FRONT)

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog

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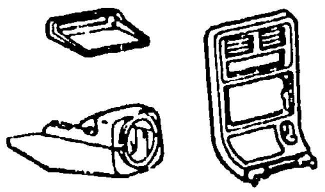

DASHBOARD EQUIPMENTS

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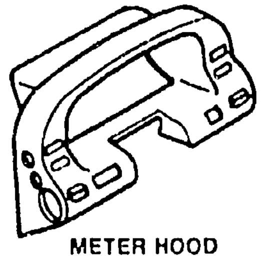

METER HOOD

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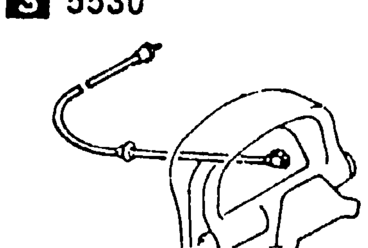

SPEEDOMETER CABLE

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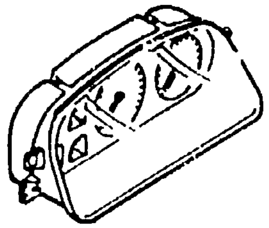

METER COMPONENTS

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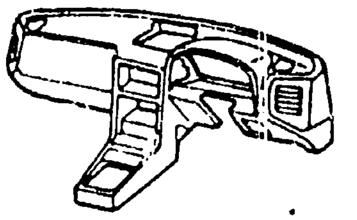

DASHBOARD & RELATED PARTS

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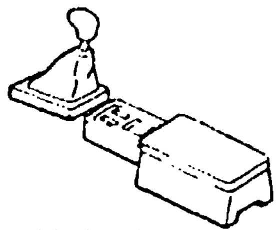
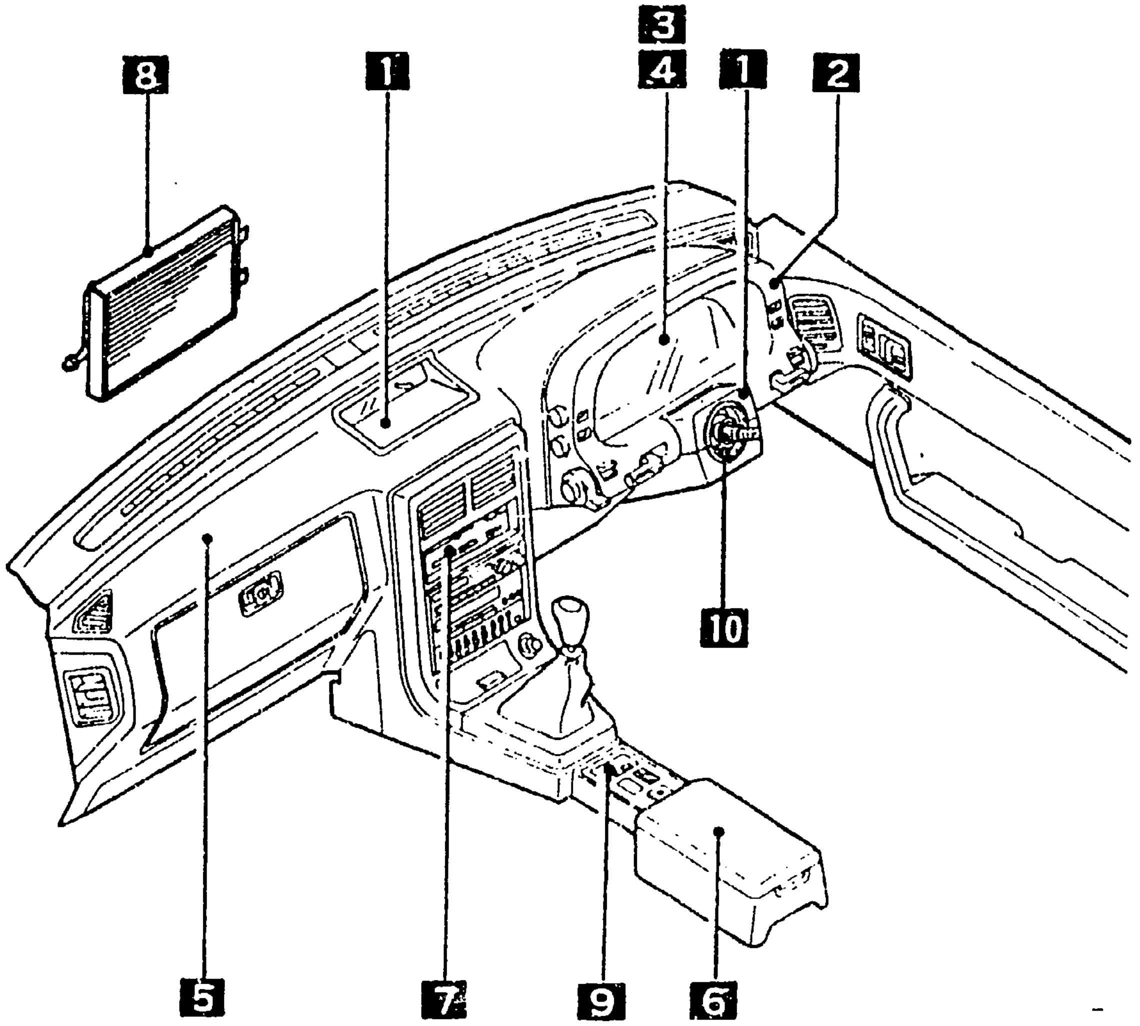


CONSOLE

BODY (3/4)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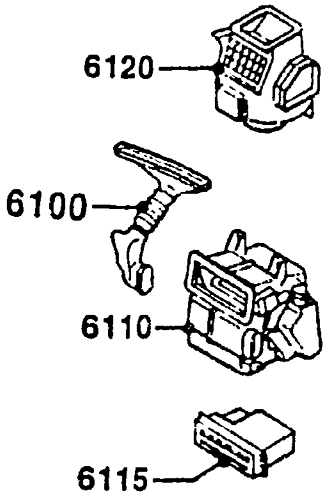
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HEATER

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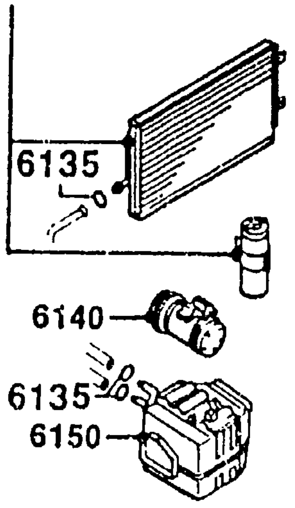
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AIR CONDITIONER

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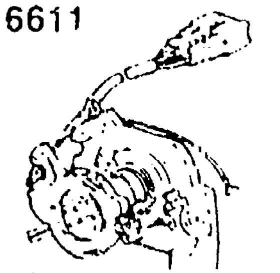

COMBINATION SWITCH

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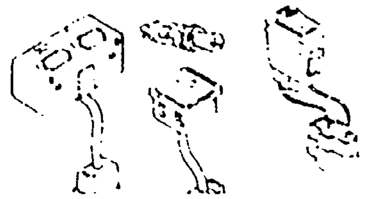

DASHBOARD SWITCHES

As this illustration is prepared to be applicable to all models, some parts are different in specific ones from the parts listed in this parts Catalog.

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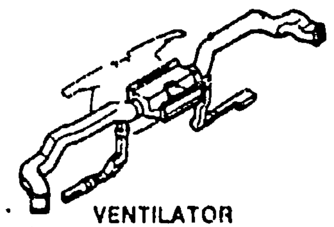

VENTILATOR

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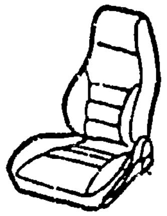
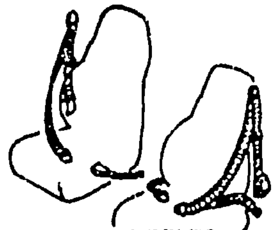


SEATS

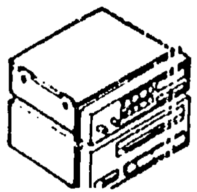
3

4 5790



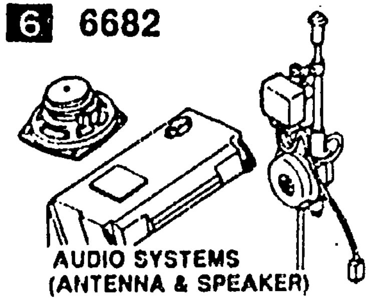
SEAT BELTS

5 6680



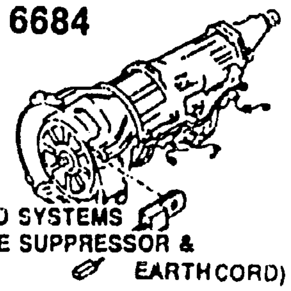
AUDIO SYSTEMS
(RADIO & TAPE DECK)

6 6682



AUDIO SYSTEMS
(ANTENNA & SPEAKER)

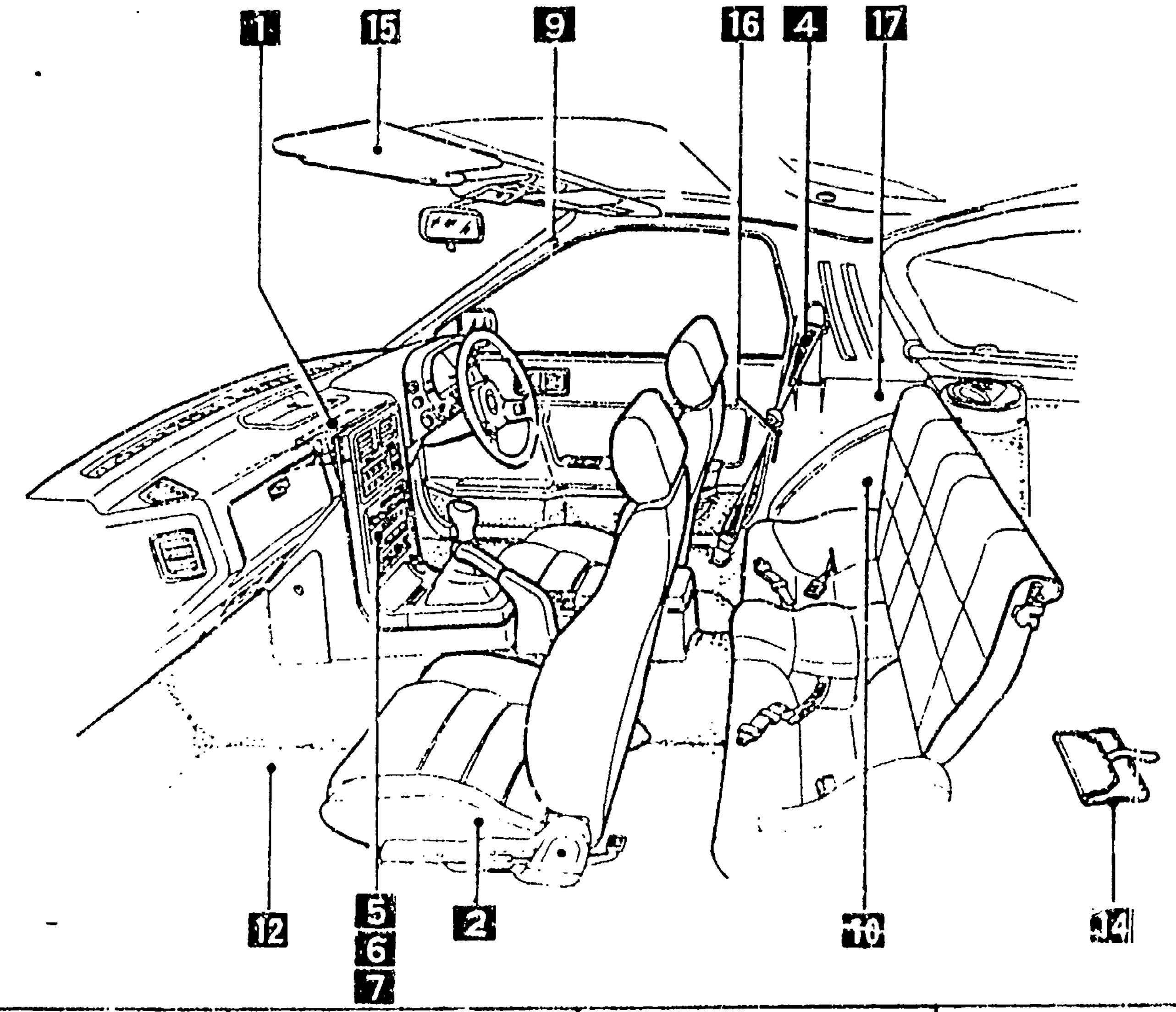
7 6684



AUDIO SYSTEMS
(NOISE SUPPRESSOR &
EARTHCORD)

8

BODY (4/4)



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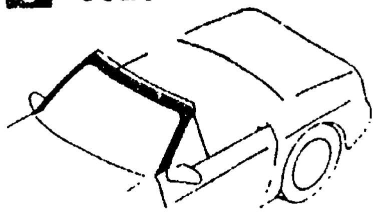
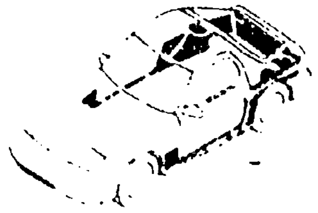


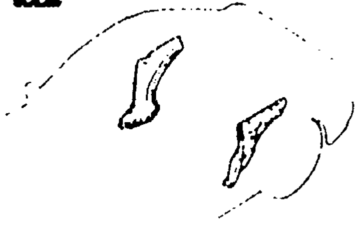
FRONT HEADER TRIM
& PILLAR TRIMS

10 6840



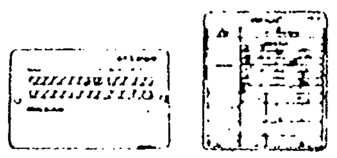
TRIMS & SCUFF PLATES

17 7250



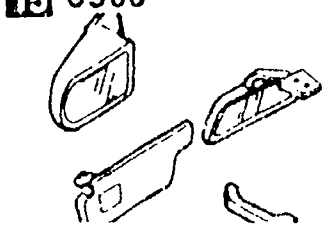
REAR WINDOW GLASSES & TRIMS

16 6930



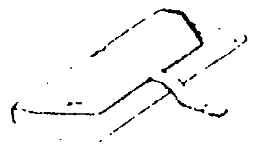
CAUTION PLATES & LABELS

15 6900



VISORS, ASSIST HANDLES & MIRRORS

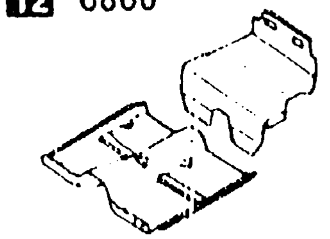
14 6870



SERVICE TOOLS

13

12 6860



FLOOR MATS & PADS

11

As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-I03	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON,CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-I04	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET,PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER,OIL PUMP & PIPINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTROL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-I08	1930	CLUTCHES & PLANETARY GEARS (AUTOMATIC)						
1-D09	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMATIC)						
1-I09	1960	GASKET & SEAL KIT (AUTOMATIC)						

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SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT
1-D11	2550	REAR DRIVE SHAFT
1-E11	2600	REAR AXLE
1-F11	2610	REAR BRAKE MECHANISMS
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)
1-D12	2800	REAR SUSPENSION MECHANISMS
1-E12	2801	REAR SPRING & DAMPER
1-F12	2810	REAR STABILIZER
1-G12	2830	REAR LOWER ARMS & SUB FRAME
1-I12	3200	STEERING WHEEL
1-L12	3210	STEERING COLUMN & SHAFTS
1-M12	3220	STEERING GEAR (W/O POWER STEERING)
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)
1-F13	3240	POWER STEERING SYSTEM
1-H13	3300	FRONT AXLE
1-I13	3310	FRONT BRAKE MECHANISMS
1-K13	3400	FRONT SUSPENSION MECHANISMS
1-M13	3401	FRONT SPRING & DAMPER
1-N13	3410	CROSSMEMBER & STABILIZER
1-C14	3700	TIRES & JACK
1-C15	3900	ENGINE & T/MISSION MOUNTINGS
1-D15	4000	EXHAUST SYSTEM
1-F15	4140	CLUTCH RELEASE & MASTER CYLINDERS (MANUAL TRANSMISSION)
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMISSION)
1-H15	4160	ACCELERATOR CONTROL SYSTEM
1-I15	4200	FUEL TANK
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE
1-H16	4360	BRAKE PIPINGS
1-J16	4400	PARKING BRAKE SYSTEM
1-L16	4500	FUEL PIPINGS
2-C03	4600	CHANGE CONTROL SYSTEM (AT)

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SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS
2-E05	5000	FRONT BUMPER
2-H05	5010	REAR BUMPER
2-J05	5030	WINDOW MOULDING & COWL GRILLES
2-L05	5100	HEAD LAMPS
2-M05	5103	HEAD LAMP RETRACTORS
2-D06	5105	FRONT COMBINATION LAMPS
2-F06	5110	REAR COMBINATION LAMPS
2-I06	5120	LICENSE LAMPS
2-J06	5180	REAR FINISHER
2-L06	5230	BONNET
2-N06	5260	TRUNK LID
2-D07	5310	BODY PANELS (FRONT)
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)
2-H07	5330	BODY PANELS (DASH & COWL PANEL)
2-I07	5340	BODY PANELS (SIDE)
2-C08	5370	BODY PANELS (FLOOR)
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)
2-G08	5390	FLOOR ATTACHMENTS
2-C09	5500	DASHBOARD EQUIPMENTS
2-E09	5520	METER HOOD
2-F09	5530	SPEEDOMETER CABLE
2-G09	5540	METER COMPONENTS
2-I09	5560	DASHBOARD & RELATED PARTS
2-L09	5570	CONSOLE
2-C10	5580	VENTILATOR
2-D10	5700	SEATS
2-K10	5790	SEAT BELTS
2-L10	5800	FRONT DOORS
2-C11	5830	FRONT DOOR MECHANISMS
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS
2-C12	6100	HEATER
2-D12	6110	HEATER UNIT COMPONENTS
2-E12	6115	HEATER CONTROLS COMPONENTS
2-F12	6120	HEATER BLOWER COMPONENTS
2-G12	6130	AIR CONDITIONER
2-K12	6135	O RING SET,PIPING
2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)
2-N12	6150	COOLING UNIT (AIR CONDITIONER)
2-C13	6300	WINDOW GLASSES
2-D13	6330	SUNROOF
2-M13	6600	SWITCHES & RELAYS (ENGINE)
2-D14	6610	DASHBOARD SWITCHES
2-E14	6611	COMBINATION SWITCH
2-F14	6630	RELAYS & UNIT (BODY)
2-G14	6635	DOOR SWITCH & HORNS
2-H14	6640	AUTO CRUISE CONTROL SYSTEM
2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)
2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)
2-L14	6700	WIRING HARNESSES(FRONT & REAR)
2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)
2-D15	6702	WIRING HARNESSES(DASHBOARD)
2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)
2-F15	6704	WIRING HARNESS CLAMPS
2-I15	6720	WINDSHIELD WASHER
2-K15	6730	WINDSHIELD WIPERS
2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)
2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS
2-C16	6840	TRIMS & SCUFF PLATES
2-E16	6860	FLOOR MATS & PADS
2-G16	6870	SERVICE TOOLS
2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS
2-J16	6930	CAUTION PLATES & LABELS
2-L16	7250	QUARTER WINDOW & TRIMS
3-C03	7900	ACCESSORIES

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET,PIPING			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)			
2-M05	5103	HEAD LAMP RETRACTORS	2-N12	6150	COOLING UNIT (AIR CONDITIONER)			
2-D06	5105	FRONT COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
2-F06	5110	REAR COMBINATION LAMPS	2-D13	6330	SUNROOF			
2-I06	5120	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-J06	5180	REAR FINISHER	2-D14	6610	DASHBOARD SWITCHES			
2-L06	5230	BONNET	2-E14	6611	COMBINATION SWITCH			
2-N06	5260	TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)			
2-D07	5310	BODY PANELS (FRONT)	2-G14	6635	DOOR SWITCH & HORNS			
2-E07	5320	BODY PANELS (FENDER & WHEEL APRON)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL)	2-I14	6680	AUDIO SYSTEMS (RADIO & TAPE DECK)			
2-I07	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAKER)			
2-C08	5370	BODY PANELS (FLOOR)	2-L14	6700	WIRING HARNESSES(FRONT & REAR)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS)	2-N14	6701	WIRING HARNESSES(ENGINE & T/MISSION)			
2-G08	5390	FLOOR ATTACHMENTS	2-D15	6702	WIRING HARNESSES(DASHBOARD)			
2-C09	5500	DASHBOARD EQUIPMENTS	2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CEILING)			
2-E09	5520	METER HOOD	2-F15	6704	WIRING HARNESS CLAMPS			
2-F09	5530	SPEEDOMETER CABLE	2-I15	6720	WINDSHIELD WASHER			
2-G09	5540	METER COMPONENTS	2-K15	6730	WINDSHIELD WIPERS			
2-I09	5560	DASHBOARD & RELATED PARTS	2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)			
2-L09	5570	CONSOLE	2-N15	6820	FRONT HEADER TRIM & PILLAR TRIMS			
2-C10	5580	VENTILATOR	2-C16	6840	TRIMS & SCUFF PLATES			
2-D10	5700	SEATS	2-E16	6860	FLOOR MATS & PADS			
2-K10	5790	SEAT BELTS	2-G16	6870	SERVICE TOOLS			
2-L10	5800	FRONT DOORS	2-H16	6900	VISORS,ASSIST HANDLES & MIRRORS			
2-C11	5830	FRONT DOOR MECHANISMS	2-J16	6930	CAUTION PLATES & LABELS			
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS	2-L16	7250	QUARTER WINDOW & TRIMS			
2-C12	6100	HEATER						
2-D12	6110	HEATER UNIT COMPONENTS						

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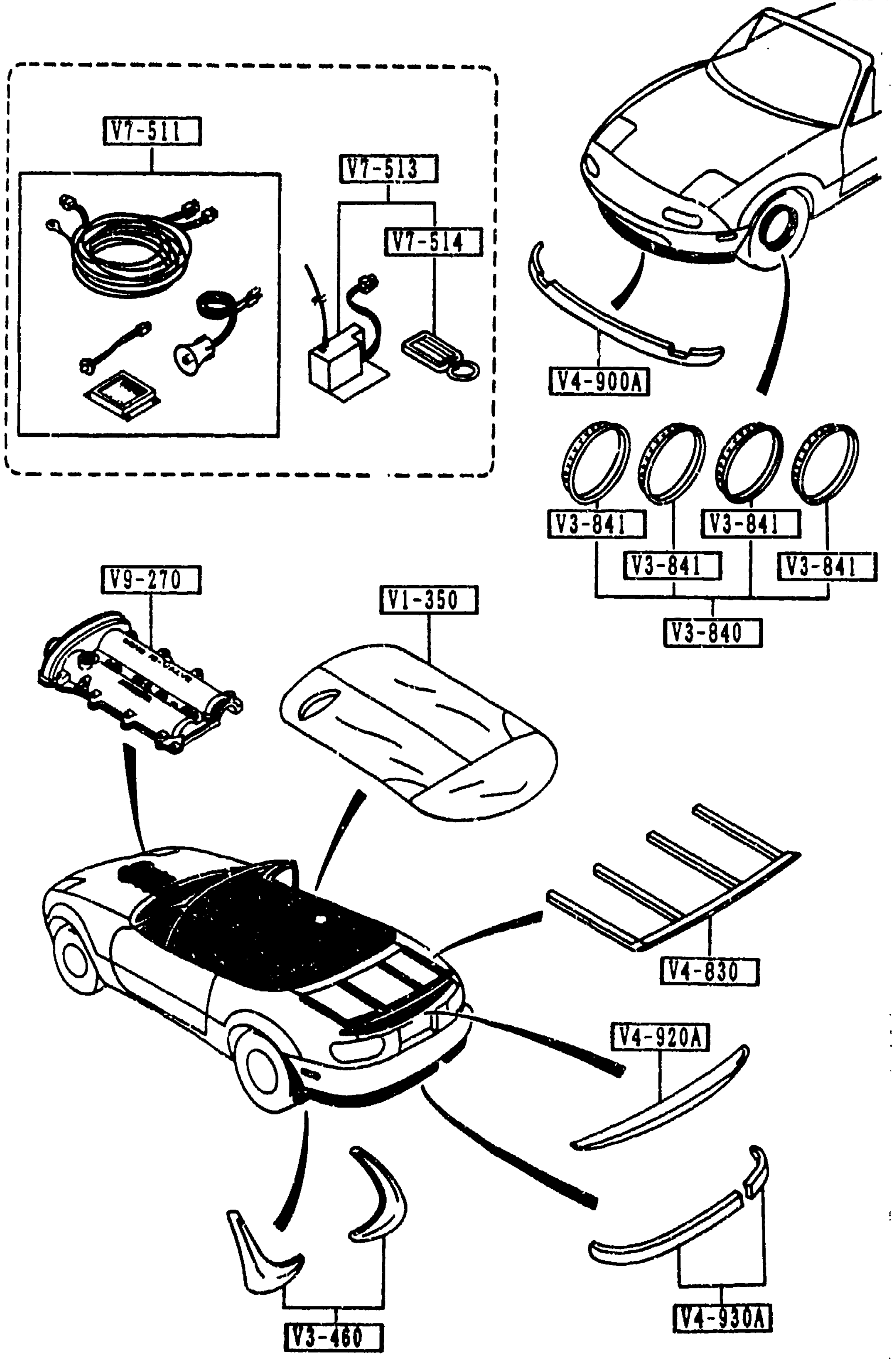
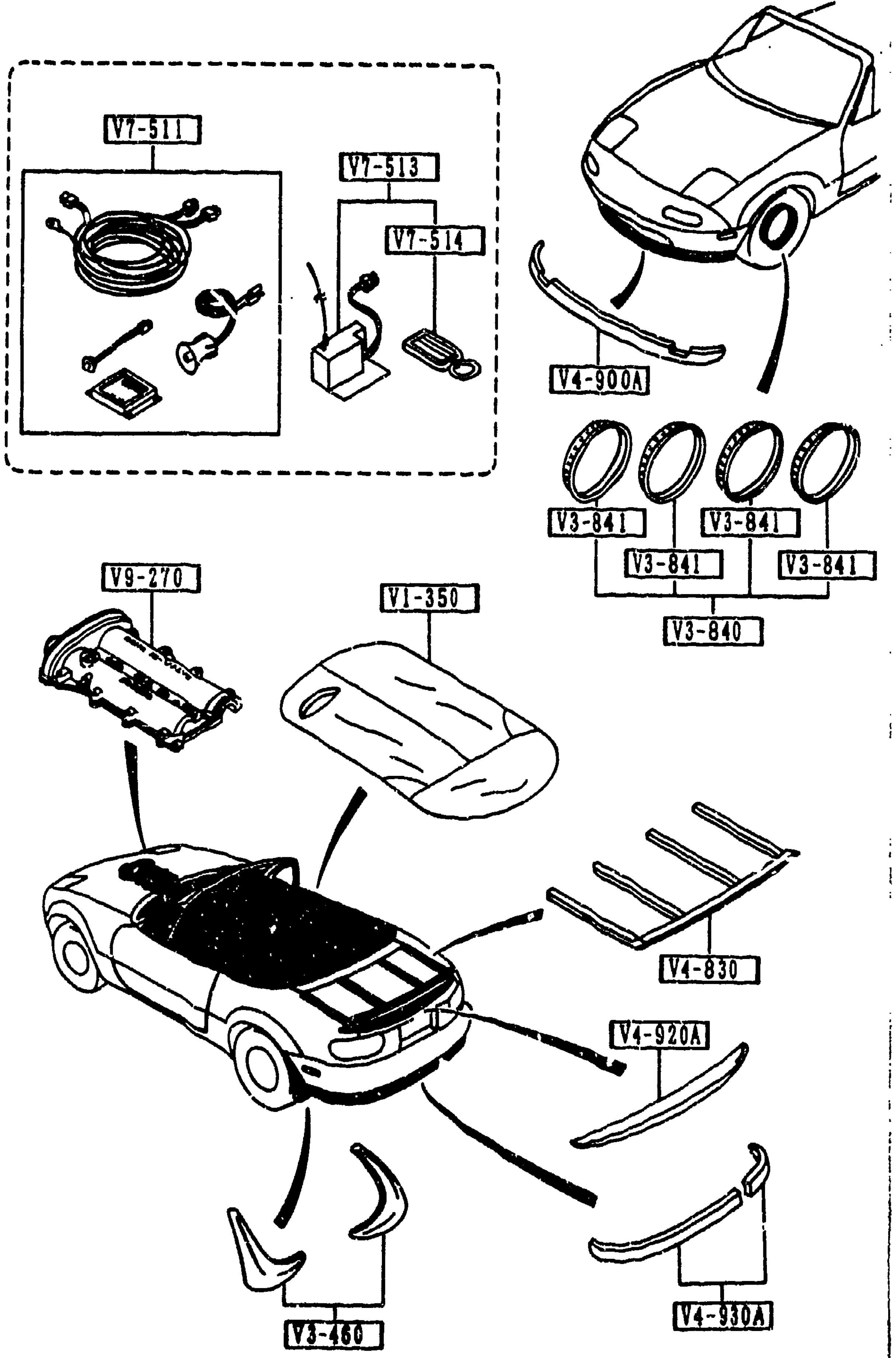
7900 ACCESSORIES


V7-511
V7-513
V7-514
V4-900A
V3-841
V3-841
V3-841
V3-841
V3-840
V9-270
V1-350
V4-830
V4-920A
V3-460
V4-930A

7900 -1 ACCESSORIES

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
V1-350		COVER,TONNEAU			
0000-88-5590	1				
V3-460		FLAP,REAR-MUD			
NA01-V3-460	1				
V3-840		TRIM RING SET			
0000-88-0014	1				
M5					
V3-841		TRIM RING			
0000-88-0014	4				
01					
V4-830		DECK RACK			
0000-88-5305	1				
BK		BLACK			
CM		CHROME			
V4-900A		AIRDAM SKIRT,FRONT			
0000-86-510A	1				
V4-920A		REAR SPOILER			
0000-86-2290	1				
V4-930A		REAR UNDER SKIRT			
0000-86-710A	1				
V7-511		SECURITY SYSTEM			
0000-88-1905	1				
V7-513		REMOTE VPGRADE KIT			
0000-88-1905	1				
RC					
V7-514		REMOTE TRANSMITTER			
0000-88-1905	1				
RR					


V7-511
V7-513
V7-514
V4-900A
V3-841
V3-841
V3-841
V3-841
V3-840
V9-270
V1-350
V4-830
V4-920A
V4-930A
V3-460

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
V9-270		CHROME VALVE COVER			
NA01-V9-270	1				

PART NUMBER INDEX

This index is listed in the following sequence.

INDEX DES NOMBRES DE PIECES

Cet index a été composé selon la sequence suivante.

NUMERO INDICE DE PIEZA

Este indice se ordena en la siguiente secuencia.

TEILENUMMERN

Die Teilenummern setzen sich wie folgt zusammen

GENERAL PARTS

EXAMPLE

❶ Model/Type
Third, in the sequence of model/typs (1st-4th digits)

❷ Group
First, in the sequenece of group (5th & 6th digits)

❸ Part
Second, in the sequence of part (7th-9th digits)

PIECES GENERALES

EXEMPLE

❶ Modéle/type
Troisiemement, séquence du modele/type (1er a 4ème chiffres)

❷ Groupe
Premierement, sequence du groupe (5ème et 6ème chiffres)

❸ Pièce
Deuxiemement, séquence de la pièce (7ème à 9ème chiffres)

PIEZAS GENERALES

EJEMPLO

❶ Tipo de modelo
Tercero, en la secuencia de tipo de modelo (entre las cifras 1ro-4to lugar)

❷ Grupo
Primero, en la secuencia de grupo (las cifras en 5to y 6to lugar)

❸ Pieza
Segundo, en la secuencia de pieza (entre las cifras 7mo-9no lugar)

ALLGEMEINE TEILE

BEISPIEL

❶ Modell/Typ
Angabe des Modells bzw. Typs (1. bis 4. Ziffer)

❷ Baugruppe
Angabe der Baugruppe (5. und 6. Ziffer)

❸ Teil
Angabe des Teils (7. bis 9. Ziffer)

$$\overbrace{\mathrm{B\ A\ 0\ 1}}^{❶}\quad\overbrace{6\ 0}^{❷}\quad\overbrace{3\ 5\ 0}^{❸}$$

STANDARD PARTS

Standard Parts are listed in numerical sequence after General Parts.
(Note: Those parts which do not have D-Code are not listed in the index.)

PIECES STANDARD

Les pièces standard sont énumérées selon une séquence numérique, après les pièces générales.
(Remarque: Les pièces qui ne possèdent pas de code D ne sont pas mentionnées dans cet index.)

PIEZAS NORMALES

Las piezas normales se numeran secuencialmente despues de las Piezas generales.
(Nota: Las piezas que no tienen un codigo D no estan en el indice.)

STANDARDTEILE

Die Standardteile sind nach den allgemeinen Teilen mit fortlaufender Numerierung aufgeführt.
(Hinweis: Teile ohne D-Code sind nnd nicht aufgeführt.)

PART NUMBER INDEX / INDEX DES NUMEROS DE PIECES / TEILENUMNER-INDEX / INDICE DE NUMERO DE PARTES

R1-000

NA01-R1-100C	2-E13
NA01-R1-100D	2-E13
NA01-R1-181	2-E13
NA01-R1-210D	2-E13
NA01-R1-210E	2-E13
NA01-R1-210F	2-E13
NA01-R1-210G	2-E13
NAY1-R1-211	2-E13
NAY1-R1-240C	2-E13
NAY1-R1-242	2-E13
NAY1-R1-243	2-E13
NA01-R1-250	2-E13
NA01-R1-250A	2-E13
NA01-R1-271	2-E13
NA01-R1-272	2-E13
NA01-R1-281	2-F13
NA01-R1-291	2-E13
NA01-R1-310A	2-I13
NA01-R1-310B	2-I13
NA02-R1-310A	2-F13
NA02-R1-310B	2-F13
NA01-R1-320A	2-I13
NA01-R1-320B	2-I13
NA01-R1-331	2-F13
NA01-R1-361A	2-I13
NA01-R1-361B	2-J13
NA02-R1-361A	2-J13
NA02-R1-361B	2-J13
NA01-R1-371A	2-J13
NA01-R1-371B	2-J13
NA02-R1-371A	2-J13
NA02-R1-371B	2-J13
NA01-R1-38XA	2-F13
NA01-R1-38XB	2-F13
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NA01-R1-381B	2-F13
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NA01-R1-382A	2-F13
NA01-R1-391A	2-F13
NA01-R1-391B	2-F13
NA01-R1-411B	2-G13
NA01-R1-412B	2-G13
NA01-R1-413B	2-G13
NA01-R1-421B	2-G13
NA01-R1-422B	2-G13
NA01-R1-423B	2-G13
NA01-R1-461	2-F13
NA01-R1-462	2-F13
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NA01-R1-491	2-G13
NA01-R1-560C	2-G13
NA01-R1-581B	2-G13
NA01-R1-582A	2-G13
NA01-R1-592A	2-G13
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NA01-R1-721B	2-H13
NA01-R1-731A	2-H13
NA01-R1-731B	2-H13
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NA01-R1-741B	2-H13
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NA01-R1-742B	2-H13
NA01-R1-750B	2-H13
NA01-R1-750C	2-H13
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NA02-R1-810E	2-I13
NA02-R1-810F	2-I13
NA03-R1-810	2-I13
NA04-R1-810	2-I13
NA02-R1-82X	2-H13
NA02-R1-82XA	2-I13
NA03-R1-82X	2-I13
NA04-R1-82X	2-I13
NA01-R1-832A	2-I13
NA01-R1-881B	2-K13
NA01-R1-882	2-J13
NA01-R1-89XA	2-J13
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NA01-R1-892	2-J13
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NA01-R1-926	2-K13
NA01-R1-931A	2-J13
NA01-R1-935A	2-J13
NA01-R1-936	2-J13
NA01-R1-941A	2-J13
NA01-R1-946	2-J13
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B235-R1-958A	2-K13
NA01-R1-96XA	2-K13
NA01-R1-96XB	2-K13
NA01-R1-960B66	2-I13
NA01-R1-970	2-K13
NA01-R1-970A	2-K13
NA01-R1-981A	2-K13
NA01-R1-982A	2-K13

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B64J-02-200	1-C3
B64J-02-200A	1-C3

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NA01-09-010C00	2-C5
NA03-09-010 00	2-C5
NA03-09-010A00	2-C5

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B61P-10-100B	1-D3
B660-10-104A	1-D3
B660-10-106	1-D3
B660-10-126	1-D3
B660-10-135A	1-D3
B630-10-138A	1-D3
B660-10-155	1-N3
B61P-10-210B	1-D3
B61P-10-210C	1-D3
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B6S7-10-225	1-D3
B61P-10-227	1-D3
B61P-10-235	1-D3
8AN1-10-235	1-C3
B660-10-241	1-E3
B660-10-244	1-E3
0453-10-250A	1-E3
0324-10-252	1-E3
B6F4-10-271A	1-E3
8AN1-10-271	1-C3
B6Z0-10-280	1-F3
B6Z0-10-290	1-F3
B6A7-10-300G	1-G3
B64J-10-300	1-G3
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B630-10-306	1-G3
B6F4-10-308	1-I3
B630-10-319	1-G3
0221-10-327	1-G3
B660-10-328	1-G3
B630-10-352	1-G3
0290-10-353	1-H7
B61P-10-40YA	1-I3
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B6Y0-10-400C	1-I3
B6S7-10-404	1-I3
B6S7-10-404A	1-I3
B6F4-10-427	1-I3
B6F4-10-428	1-I3
B61P-10-440	1-G3
B61P-10-450B	1-G3
B61P-10-450C	1-G3
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B660-10-501D	1-I3
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B61P-10-510	1-I3
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B61P-10-513	1-I3
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B61P-10-540B	1-J3
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B61P-10-544	1-J3
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B61P-10-565	1-E3
B660-10-580A	1-G3
B630-10-602	1-N4
F801-10-602	1-J3
SE01-10-715	1-G3
SE01-10-730	1-H3
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B61P-10-901A	1-J3
B64J-10-901	1-J3
B64J-10-903	1-J3

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B6Z2-11-SA0C	1-M3
B6Z5-11-SA0	1-M3
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B6Z2-11-SBXC	1-M3
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B6Z2-11-SB0C	1-M3
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B6Y4-11-SC0	1-L3
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B6Y1-11-SKY	1-M3
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B6S7-11-210D	1-K3
B6S7-11-215A	1-K3
B616-11-300B	1-K3
F801-11-303	1-L3
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B366-11-321A	1-K3
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B631-11-405	1-K3
B630-11-406C	1-K3
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F201-11-511	1-L3

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B660-12-123	1-N3
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B660-12-700C	1-C4
B660-12-711C	1-C4
B660-12-730B	1-C4

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B61P-13-W80	1-K4
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FEH2-13-ZE4	1-F4
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B61P-13-ZE5	1-F4
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B61P-13-100C	1-D4
B61P-13-100D	1-D4
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F667-13-104	1-F3
1010-13-104	1-M4
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B61P-13-121	1-D4
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8574-13-157	1-L16 1-M4
B675-13-158	1-H4
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F8B3-13-164	1-H4
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B61P-13-190A	1-L4
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B61P-13-200B	1-I4
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B6S7-13-210A	1-I4
B6S7-13-211A	1-I4
B61P-13-221B	1-I4
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B6S7-13-250	1-H4
8574-13-252	1-H4
G601-13-253	1-H4
8574-13-253	1-H4
JE06-13-257	1-H4
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JE16-13-298	1-F4
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SLA1-13-321	1-J4
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B61P-13-330E	1-I4
B64J-13-330	1-I4
B61P-13-331B	1-I4
E301-13-338A	1-E3
B61P-13-348	1-M6
V115-13-348	1-J4
S501-13-349	1-J4
B61P-13-350B	1-F4
B61P-13-363A	1-M6
FE51-13-363	1-J4
N326-13-363B	1-F4
0222-13-363	2-M13
B61P-13-366	1-E3
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B61P-13-380B	1-E4
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B61P-13-447	1-M4 2-G15
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B695-13-460	1-E4
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B695-13-462	1-E4
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B61P-13-682A	1-L4
B61P-13-685A	1-L4
B61P-13-691A	1-L4
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B630-13-736	1-M4
F249-13-736	1-M4
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B61P-13-741	1-F3
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B61P-13-743A	1-F3
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B61P-13-971	1-F4
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B61P-13-986	1-F3

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0324-14-116A	1-N4
0222-14-118	1-N4
B630-14-121	1-N4
FE1H-14-124	1-N4
B660-14-132	1-N4
B660-14-141	1-N4
0810-14-171A	1-N4
B61P-14-240	1-N4
B6Y1-14-302	1-N4
N304-14-726	2-G15

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B660-15-031	2-J16
E508-15-031	2-J16
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B621-15-116A	1-C5
B366-15-131	1-C5
B366-15-131A	1-C5
B6S8-15-140A	1-C5
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B64J-15-150	1-E5
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B621-15-165	1-C5
B61P-15-170A	1-C5
B61P-15-170B	1-C5
8AN1-15-171	1-C5
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B621-15-173	1-D5
B61P-15-176A	1-D5
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B61P-15-179	1-D5
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B61P-15-184	1-D5
B61P-15-185	1-D5
B61P-15-186	1-D5
B61P-15-190	1-D5
B61P-15-200	1-D5
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0488-15-201	2-J16
8791-15-201	2-J16
E501-15-202	1-J4
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D316-15-205	1-D5
B61P-15-210A	1-E5
B61P-15-240	2-D7
B61P-15-250	2-D7
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B61P-15-290	1-E5
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F201-15-388A	1-E5
JF02-15-538	1-F3 1-F5 1-M4
R230-15-538	1-H3
B61P-15-547	1-E5
SE01-15-612	1-H3
B61P-15-810A	1-G5
B61P-15-907	1-G5
B61P-15-907A	1-G5
B63H-15-908	1-G5
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B631-15-932	1-G5
BP01-15-933	1-G5
E564-15-934	1-G5
BP01-15-940	1-G5
E564-15-942	1-G5
BP01-15-951	1-G5
FE38-15-966	1-M6

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0603-16-102B	1-C6
FE86-16-214	1-C6
B622-16-220	1-C6
FE50-16-225A	1-C6
1416-16-232A	1-C6
B622-16-410	1-C6
B622-16-460	1-C6
B622-16-460A	1-C6
B622-16-510	1-C6
B622-16-520	1-C6

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H501-17-103	1-C6
0810-17-121	1-D6 1-H11 1-L11
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0317-17-225	1-E6
M513-17-231	1-E6
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F401-17-242A	1-F6
F401-17-243A	1-E6
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M505-17-260A	1-F6

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M503-17-262	1-F6
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0259-17-274A	1-F6
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0259-17-276	1-F6
0259-17-277	1-F6
0259-17-278	1-G6
0259-17-279	1-G6
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4069-17-283A	1-F6
4069-17-284E	1-F6
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M502-17-297A	1-G6
M502-17-298A	1-G6
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M504-17-304	1-G6
0839-17-305B	1-G6
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M510-17-308	1-H6
M501-17-309	1-H6
M509-17-310	1-H6
M509-17-310A	1-H6
M501-17-313	1-H6
4077-17-314A	1-H6
4077-17-315A	1-H6
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R502-17-316	1-H6
4077-17-316	1-H6
8086-17-326	1-D6
0305-17-327	1-H6
0305-17-328	1-H6
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	1-K7
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M501-17-404B	1-J6
M504-17-406A	1-J6
M503-17-411	1-J6
0014-17-411	1-J6
0103-17-411	1-J6
M507-17-412	1-J6
3648-17-415	1-J6
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M507-17-422	1-J6
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M508-17-432	1-K6
R502-17-435	1-K6
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1472-17-441A	1-D6
BU55-17-442	1-K7
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	1-K7
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M508-17-461	1-K6
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M501-17-475	1-K6
M502-17-476A	1-K6
M514-17-480	1-K6
M514-17-480A	1-K6
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M504-17-490A	1-L6
0183-17-491	1-L6
M501-17-501	1-L6
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M515-17-520 00	1-L6
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8601-17-629	1-I6
0884-17-632B	1-I6
0884-17-633B	1-I6
0884-17-634B	1-I6
0884-17-635B	1-I6
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1391-17-640	2-M13
8118-17-640A	2-M13
8118-17-640B	2-M13
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M501-17-652	1-I6
M501-17-653	1-I6
M501-17-654	1-I6
M501-17-655	1-I6
W501-17-724	1-I6
V501-17-725	1-I6
W501-17-732A	1-I6
W501-17-732B	1-I6

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RF71-18-W26	1-D7
F811-18-W27	1-C7
B366-18-W35	1-D7
B366-18-W35A	1-D7
B61P-18-W35	1-D7
N336-18-W36	1-C7
B366-18-W45	1-C7
G608-18-W45	1-C7
B61P-18-W50	1-C7
B64J-18-W50	1-C7
B366-18-W51	1-C7
B675-18-W59	1-C7
B366-18-W60	1-C7
B61P-18-W60	1-C7
B61P-18-W70	1-C7
FE2H-18-W77	1-C7
N337-18-W80	1-D7
B61R-18-X00	1-E7
F210-18-X01	1-F7
E356-18-X05	1-E7
E356-18-X10	1-F7
E356-18-X30	1-E7
B630-18-X45	1-E7
B6S8-18-X60	1-E7
F210-18-X60	1-E7
B61R-18-X65	1-E7
B630-18-X66	1-F7
B660-18-X66	1-F7
B61R-18-X70	1-F7
E356-18-X80	1-E7
E356-18-X81	1-E7
B630-18-X90	1-E7
E356-18-X92	1-E7
E356-18-X95	1-E7
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BP06-18-110	1-M6
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E356-18-141	2-G15
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B61P-18-170B	1-M6
B61P-18-180B	1-M6
B61P-18-190B	1-N6
B61P-18-2F0A	2-M13
B61P-18-2F0B	2-N13
B61P-18-230	2-M13
B61P-18-251	2-C14
B61R-18-266	1-N6
B61R-18-266A	1-N6
B61P-18-300D	1-C7
B64J-18-300A	1-C7
B61P-18-360	1-N6
B61P-18-360A	1-N6
F201-18-363	1-G5
	1-N6
B6S7-18-381A	1-N6
B6S7-18-381B	1-N6
B61R-18-400	1-E7
B61R-18-400A	1-E7
B61P-18-410	1-N6
B660-18-411C	1-N6
B61P-18-501	2-M13
B541-18-51X	2-M13
B61R-18-520A	1-G7
B61R-18-520B	1-G7
B61P-18-524	1-G7
B61P-18-526	1-G7
JE16-18-741	2-M13
B64J-18-780A	2-M13
B64J-18-780B	2-M13
B6S8-18-811	2-N13
N236-18-821	2-N13
N350-18-840	2-N13
8574-18-840	2-N13
B61R-18-861A	2-N13
FE30-18-867A	2-N13
B61P-18-881A	2-N13
B64J-18-881	2-N13
B61P-18-882	2-N13
B61P-18-883	2-N13
B61P-18-884	2-N13
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B61P-18-889A	2-N13
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B630-18-911	1-K4

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FT31-19-064	1-H7
FU51-19-065	1-H7
BUY2-19-090	1-H7
BUY2-19-090A	1-H7
BU55-19-100	1-H7
BU55-19-211	1-H7
BU01-19-215	1-H7
BU01-19-216	1-H7
BU55-19-217	1-H7
BU55-19-220	1-H7
BU55-19-223	1-I7
0338-19-223A	1-I7
BU55-19-240	1-I7
0338-19-255	1-I7
BU01-19-256	1-K7
BU01-19-257	1-K7
0338-19-258	1-I7
	1-K7
BV11-19-3C4	1-K7
BU55-19-3C8	1-K7
BU55-19-3F3	1-L7
BU55-19-310A	1-K7
BU01-19-332A	1-K7
0338-19-336	1-D9
0338-19-337	1-D9
0338-19-338	1-D9
0338-19-341	1-K7
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0338-19-361B	1-L7
BU17-19-363	1-L7
BU20-19-368	1-L7
BU06-19-381	1-L7
BV03-19-381	1-L7
BU10-19-384	1-L7
BU55-19-384	1-L7
FT03-19-385	1-L7
0842-19-385	1-L7
0338-19-386A	1-L7
0338-19-388A	1-L7
0338-19-389	1-L7
BU06-19-391	1-L7
1758-19-392A	1-L7
0842-19-394	1-L7
1758-19-394A	1-M7
0338-19-395	1-M7
0338-19-397	1-D9
1758-19-397	1-M7
0338-19-398	1-M7
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0338-19-432	1-G9
BU55-19-440	1-G9
BU55-19-444A	2-N13
0338-19-446	2-C14
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0338-19-488	1-J8
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0338-19-498	1-J8
BU55-19-499	1-J8
FT01-19-499	1-J8
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3959-19-509	1-K8
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1758-19-511	1-L8
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BV04-19-531	1-L8
BV01-19-533	1-L8
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1758-19-618	1-E9
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0338-19-814	1-G8
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0338-19-818	1-G8
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0338-19-836A	1-N7
0338-19-837	1-N7
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BU17-19-880B	1-N7
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BU17-19-917	1-I7
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BU55-19-920C	1-I7
BU55-19-930B	1-I7
BU55-19-930C	1-I7
BU55-19-933A	1-I7
BU55-19-934A	1-I7
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B61P-20-660	1-K4

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BU01-21-255	1-C8
BU01-21-273	1-C8
BU01-21-274	1-C8
BU01-21-277	1-C8
BU01-21-292A	2-C14
BU55-21-293	1-C8
BU01-21-294	2-C14
BU01-21-295	2-C14
BU55-21-3A5	2-C14
BU55-21-3B1	1-C8
BU55-21-320	1-C8
BU01-21-322	1-C8
BV01-21-330	1-C8
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BU20-21-390	1-D8
BU01-21-395	1-D8
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BV01-21-5A3	1-N8
BV01-21-5A4	1-N8
BV01-21-5A5	1-N8
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BU55-21-510	1-N8
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BV01-21-536	1-N8
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BU01-21-635	1-C9
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BU01-21-665	1-J7
BU01-21-666	1-J7
BU17-21-666	1-J7
BU01-21-677	1-J7
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BU01-21-679	1-C9
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BU35-21-682	1-G8
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BU17-21-815	1-H8
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M090-22-540	1-D11

M090-22-550 1-D11

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8028-24-533 1-D7
0222-24-752A 1-F7

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M090-25-500 1-D11

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BWOH-26-680 1-F11
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NA01-37-190 1-C14
B001-37-192 1-C14
8BN1-37-600 1-D14
8BN3-37-600 1-D14
B455-37-790 1-E14
B455-37-790A 1-E14
J21-37-810 1-E14

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NA01-39-040 1-C15
NA01-39-041 1-C15
S231-39-041 1-C15
NA01-39-710 1-C15
NA03-39-710 1-C15
NA01-39-721 1-C15
NA01-39-722 1-C15
NA01-39-723 1-C15
NA01-39-724 1-C15
NA01-39-730 1-C15
NA01-39-730A 1-C15

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B684-40-100B 1-E15
B690-40-100D 1-D15
B690-40-100E 1-E15
B690-40-100F 1-E15
B322-40-305 1-D15
B690-40-305 1-D15
JE10-40-355 1-D15
2158-40-355 1-D15
B6A5-40-356 1-D15
B690-40-356 1-D15
B690-40-450 1-D15
B690-40-500A 1-D15
B690-40-690 1-D15

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0727-41-061 1-M15
NA01-41-070A 1-M15
BR70-41-081 1-M15
B092-41-081 1-D16
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B104-41-114 1-H15
NA01-41-130A 1-H15
0824-41-131 1-M15
NA01-41-140B 1-M15
0750-41-308 1-J16
H266-41-341 1-F15

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NA01-41-370A 1-G15
NA02-41-370 1-G15
8871-41-370 1-G15
GK67-41-380A 1-G15
NA01-41-390 1-G15
NA01-41-400A 1-F15
NA01-41-443 1-D16
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NA01-41-610A 1-H15
NA02-41-610 1-H15
NA02-41-610A 1-H15
NA01-41-619 1-H15
B092-41-644 1-H15
0259-41-644 1-H15
NA01-41-660A 1-H15
B092-41-661 2-H14
1456-41-682 1-M15

0111-41-692 2-I15
HE29-41-920A 1-F15
NA01-41-920 1-F15

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NA01-42-230 1-I15
NA01-42-233 1-I15
NA01-42-241 1-I15
NA01-42-241A 1-I15

NA01-42-241B 1-I15
NA01-42-249 1-I15
NA01-42-249A 1-I15
NA01-42-249B 1-I15
NA02-42-250 1-I15
GB53-42-270 1-J15
H260-42-270 1-J15
NA01-42-291A 1-J15
0223-42-307 1-M4
0866-42-366B 1-I15
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NA01-42-410A 1-J15
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B048-42-453 2-I15
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NA03-42-561 1-J15
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NA01-42-772	1-K15
GN51-42-795	1-K15
H260-42-910B	1-K15
NA03-42-910	1-K15
FB01-42-980	1-K15
FB01-42-985	1-K15

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0268-43-028	1-D16
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G030-43-029	1-M15
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NA03-43-030	1-D16
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0866-43-062	1-D16
	1-N15
BR70-43-065	1-N15
NA01-43-070A	1-D16
	1-N15
NA02-43-070A	1-D16
	1-N15
NA03-43-090	1-D16
H001-43-095	2-N6
HF23-43-099	1-D16
1524-[illegible]-140	1-D16
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D001-43-152	1-D16
	1-N15
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FB02-43-152A	2-C3
B180-43-302	1-N15
NA01-43-360A	1-H16
NA01-43-370	1-H16
NA01-43-400C	1-G16
NA01-43-400D	1-G16
H001-43-443	1-F16
NA01-43-481	1-F16
W023-43-504	1-F16
W023-43-505	1-F16
GA97-43-540	1-F16
3597-43-542	1-F16
BW0A-43-61Z	1-G16
GJ21-43-61Z	1-G16
BW0A-43-62Z	1-G16
GJ21-43-62Z	1-G16
BJ14-43-63Z	1-G16
BW0A-43-63Z	1-G16
W023-43-635	1-H16
	1-J16
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NA01-43-980	1-H16
NA01-43-990	1-H16

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G030-44-031	1-J16
NA01-44-032	1-J16
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FB01-44-034	1-J16
FB01-44-061B	1-J16
FB01-44-062A	1-J16
FC01-44-063	1-J16
NA01-44-150B	1-J16
0866-44-187A	1-J16
0866-44-189	1-J16
NA01-44-410B	1-J16
NA01-44-420B	1-K16
1011-44-439	1-K16

45-000

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NA01-45-112A	1-L16
NA01-45-280B	1-H16
NA01-45-320B	1-H16
NA01-45-360B	1-H16
NA01-45-510B	1-G15
NA01-45-510C	1-G15
NA01-45-611	1-L16
NA01-45-711A	1-L16
H266-45-910A	1-L16
NA01-45-911	1-H16
H260-45-912	1-L16
H266-45-912	1-L16
NA01-45-912	1-L16
NA01-45-913	1-L16
FB01-45-914	1-L16
NA01-45-914	1-L16
B001-45-915	1-I16
NA01-45-915A	1-I16
B001-45-916	1-I16
H115-45-916A	2-L6
NA01-45-916	1-I16
B210-45-917	1-M16
B001-45-919B	1-I16
G030-45-919	1-G15
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H260-45-930	1-M16
H266-45-930A	1-M16
H002-45-961	2-G15

46-000

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H338-46-AT9	2-C3
H338-46-027	2-C3
NA03-46-030A	2-C3
NA03-46-030B	2-C3
NA03-46-040A	2-C3
NA03-46-040B	2-C3
FB02-46-058C	2-C3
1015-46-085	1-E16
	1-N15
NA03-46-088	2-C3
NA03-46-100C	2-C3
NA03-46-100E	2-C3
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NA03-46-302	2-D3
NA16-46-302	2-D3
NA03-46-570	2-D3
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1015-46-684A	2-D3

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8239-49-114	1-I13
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H005-49-470	1-F15
B093-49-580	1-F15
GA02-49-638	1-F16
D001-49-650	1-F16
D001-49-650A	1-F16
B216-49-680	1-F16
B216-49-680A	1-F16
0305-49-686B	1-F15
	1-G16

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NA01-50-0G9	2-E5
NA01-50-0J1	2-E5
NA01-50-0J5	2-E5
NA01-50-0K0B	2-E5
NA01-50-0Z2	2-E5
NAY1-50-030	2-E5
B092-50-032	2-F5
GJ21-50-032	2-H5
BF67-50-033	2-E5
	2-H5
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NA01-50-070	2-E5
NA07-50-070	2-E5
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NA01-50-1AYB	2-F5
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NA01-50-1ZY	2-F5
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NA01-50-2J0	2-H5
NA01-50-2S4	2-H5
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NA01-50-6B2	2-J5
NAY1-50-601	2-J5
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B481-50-744	2-M5
B481-50-75X	2-C6
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G030-50-786	2-J6
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NA01-50-798	2-J5
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	2-F6
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NA01-50-850ASU	2-J6
NA01-50-850AUC	2-J6
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NA01-50-850DDU	2-J6
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NA01-50-850D3L	2-J6
NA01-50-852	2-J6
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NA01-50-894	2-C13

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NA01-51-SC5A	2-N5
NA01-51-SC5B	2-N5
KA01-51-SC6	2-M5
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NA01-51-SD0B	2-N5
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NA01-51-SD5A	2-N5
NA01-51-SD5B	2-N5
KA01-51-SD6	2-N5
KA01-51-SD7	2-N5
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NA01-51-SH2B	2-N5
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NA01-51-037	2-L5
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NA01-51-06XA	2-D6
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8BN2-51-060	2-D6
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NA07-51-064	2-D6
NA01-51-069	2-D6
NA01-51-07X	2-D6
NA01-51-07XA	2-D6
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8BN2-51-070	2-D6
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8BN1-51-130	2-E6
NA01-51-15XB	2-F6
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NA01-51-159	2-F6
NA01-51-16XB	2-G6
8BN1-51-160	2-F6
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NA01-51-170B	2-F6
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FB67-51-273	2-I6
FB67-51-276	2-I6
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NA01-51-490B00	2-C9
H197-51-491A00	2-C9
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NA01-51-5J2A	2-G6
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8BN1-51-560	2-H6
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NA01-51-580B	2-H6
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NA01-51-592B	2-H6
NA01-51-599	2-H6
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NA04-51-711 18	2-G5
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UB39-51-815	2-J15
F044-51-912	2-H7
	2-J5

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NAY1-52-310A	2-L6
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NA01-52-420A	2-L6
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NAY1-52-610	2-N6
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NA01-52-720A	2-N6
NA01-52-791A	2-N6
NA01-52-792A	2-N6

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NA01-53-100E	2-D7
NA01-53-100F	2-D7
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NA01-53-16XB	2-D7
NA01-53-16XC	2-D7
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NAY1-53-200A	2-E7
NAY1-53-200B	2-E7
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NA01-53-210B	2-E7
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NA01-53-37Z	2-E7
NA01-53-37ZA	2-E7
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NA01-53-810D	2-C8
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NA01-53-960B	2-I7
NA01-53-980	2-I7
NA01-53-980B	2-I7

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NA01-54-210B	2-E7
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NA01-54-400E	2-H7
NA01-54-400G	2-H7
NA01-54-480	2-H7
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NA01-54-660	2-D8
NA01-54-670	2-D8
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NA01-54-740A	2-E8
NA01-54-750	2-D8
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NA01-54-810D	2-D8
NA01-54-830A	2-D8
NA01-54-830C	2-E8
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NA01-54-971	2-I7
NA01-54-980	2-I7
NA01-54-980B	2-I7

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G030-55-225 00	2-K13
NA01-55-231	2-I14
FC02-55-235	2-I14
FC02-55-235A	2-I14
LA02-55-235	2-I14
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1316-55-261	2-G9
8548-55-261	2-G9
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NA06-55-280	2-L9
NA01-55-4A1	2-G9
NA01-55-420A00	2-E9
NA01-55-420B00	2-E9
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	2-E9
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NA03-55-430A	2-G9
NA03-55-430B	2-G9
BR70-55-431	2-C9

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NA01-55-471	2-H9
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NA01-55-476	2-H9
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NA01-68-090A00 2-N15
NA01-68-160 00 2-N15
NA01-68-170 00 2-N15
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NA01-68-3F1B00 2-C16

NA01-68-370 00 2-C16
NA01-68-390 00 2-C16
NA01-68-4H0 00 2-F11
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NA01-68-720 00 2-C16
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B003-68-865 81 2-H15

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S083-68-865A00 2-F16
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NA01-68-911 00 2-N10
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FA03-69-C72A 2-K16
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NA01-70-750D 2-L7
NA01-70-750E 2-L7
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NA01-71-071 2-I7
NA01-71-071A 2-I7
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NA01-71-460 2-M7
NA01-71-670 2-N7

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NA01-88-034 00 2-F10
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NA01-88-130 00 2-H10
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NA02-88-180 00 2-I10
NA01-88-181 00 2-J10
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MODEL IDENTIFICATION

This parts catalog has been compiled to cover the following models. (1/1)

Model No.	Specifications of vehicles																			VIN (Chassis No.)	Remarks
	Basic spec		Engine	CC	Cam shaft	T/mission		AT control	Speed		Door	Brake	Diff.		Wheel drive	Production period		Model Year			
	California (CL)	Federal (FD)	Gasoline engine (GE)	1600cc (1.6)	DOHC (DH)	Manual T/mission (MT)	Automatic T/mission (AT)	Hydraulic control (HC AT)	4 speed (4S)	5 speed (5S)	2 door (2D)	4 disc (4DS)	Normal diff (ND)	Limited slip diff. (LS)	2WD (2W)	From	To	1990			
NA01	CL		GE	1.6	DH	MT				5S	2D	4DS	ND		2W	Mar. '89	Jul '90	→		NA35**-100001~200000	
NA02	CL		GE	1.6	DH	MT				5S	2D	4DS		LS	2W	Mar. '89	Jul '90	→		NA35**-100001~200000	
NA03	CL		GE	1.6	DH		AT	HC AT	4S		2D	4DS	ND		2W	Dec. '89	Jul. '90	→		NA35**-100001~200000	
NA04		FD	GE	1.6	DH	MT				5S	2D	4DS	ND		2W	Mar. '89	Jul '90	→		NA35**-100001~200000	
NA05		FD	GE	1.6	DH	MT				5S	2D	4DS		LS	2W	Mar. '89	Jul. '90	→		NA35**-100001~200000	
NA06		FD	GE	1.6	DH		AT	HC AT	4S		2D	4DS	ND		2W	Dec. '89	Jul '90	→		NA35**-100001~200000	

BODY PAINTS AND INTERIOR COLORS

THIS LIST SHOWS COMBINATION OF BODY PAINT AND INTERIOR COLOR. USING THIS LIST YOU WILL BE ABLE TO FIND OUT NECESSARY COLOR CODE OF PART YOU NEED IN THE TEXT

BODY PAINT		INTERIOR COLOR CODE
NAME	CODE	
MARINER BLUE	DU	N A 0
CLASSIC RED	SU	N A 0
CRYSTAL WHITE	UC	N A 0
SILVER STONE METALLIC	3L	N A 0

NOTE: 1)

COLORS OF INTERIOR CODES ARE AS FOLLOWS

NA0	BLACK

COMPLETE ASSEMBLY PARTS NUMBERS

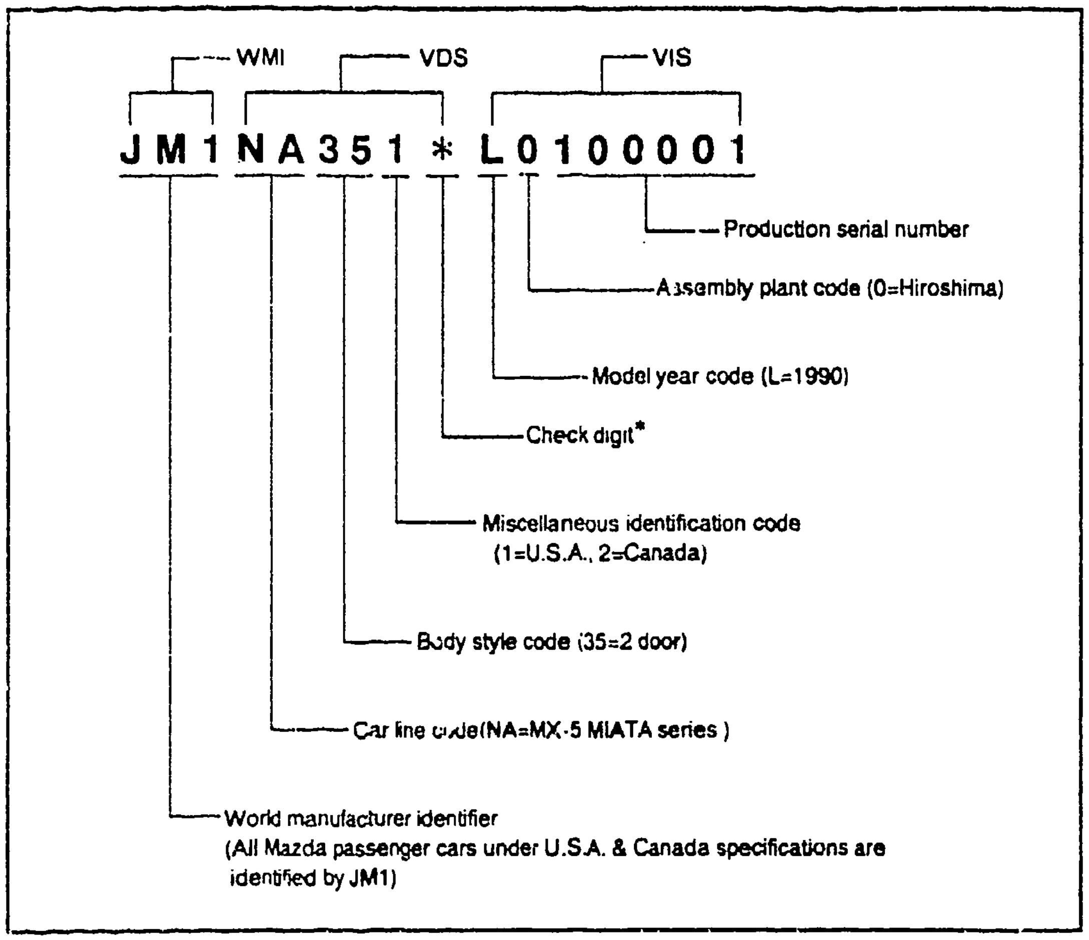
(1/1)

Model No.	Specifications of vehicles															Parts number			Remarks
	Basic spec.		Engine	CC	Cam shaft	T/mission		AT control	Speed		Door	Brake	Diff.		Wheel drive				
	California (CL)	Federal (FD)	Gasoline engine (GE)	1600cc (1.6)	DOHC (DH)	Manual T/mission (MT)	Automatic T/mission (AT)	Hydraulic control (HC AT)	4 speed (4S)	5 speed (5S)	2 door (2D)	4 disc (4DS)	Normal diff. (ND)	Limited slip diff. (LS)	2WD (2W)	Engine	T/mission	Cabin	
NA01	CL		GE	1.6	DH	MT				5S	2D	4DS	ND		2W	B61P-02-000	M50S-03-000	NA01-07-000	
NA02	CL		GE	1.6	DH	MT				5S	2D	4DS		LS	2W	B61P-02-000	M50S-03-000	NA01-07-000	
NA03	CL		GE	1.6	DH		AT	HC AT	4S		2D	4DS	ND		2W	B64J-02-000	BUY2-19-090A	NA01-07-000	
NA04		FD	GE	1.6	DH	MT				5S	2D	4DS	ND		2W	B61P-02-000	M50S-03-000	NA01-07-000	
NA05		FD	GE	1.6	DH	MT				5S	2D	4DS		LS	2W	B61P-02-000	M50S-03-000	NA01-07-000	
NA06		FD	GE	1.6	DH		AT	HC AT	4S		2D	4DS	ND		2W	B64J-02-000	BUY2-19-090A	NA01-07-000	

Complete assemblies are available and manufactured in accordance with current production specifications only.

VEHICLE IDENTIFICATION SYSTEM FOR MX-5 MIATA SERIES (1990)

VIN (= Vehicle Identification Number) for MX-5 MIATA series (1990 Year Model) consists of WMI(= World Manufacturer Identifier), VDS(= Vehicle Description Section) and VIS(= Vehicle Identification Section). VDS consisting of six alphanumeric characters denotes the "MODEL SERIES". VIS consisting of eight alphanumeric characters denotes the serial unit number of vehicle and is sequentially numbered within each VDS.



WMI VDS VIS

J M 1 N A 3 5 1 * L 0 1 0 0 0 0 1

— Production serial number

Assembly plant code (0=Hiroshima)

Model year code (L=1990)

Check digit*

Miscellaneous identification code
(1=U.S.A., 2=Canada)

Body style code (35=2 door)

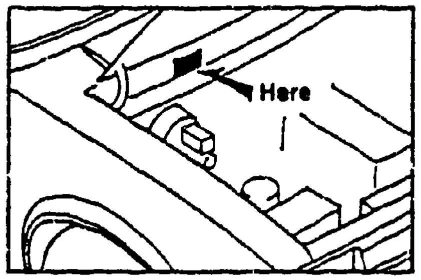
Car line code(NA=MX-5 MIATA series)

World manufacturer identifier
(All Mazda passenger cars under U.S.A. & Canada specifications are identified by JM1)

* Check digit is included as a VIN security feature to permit law enforcement verification of the authenticity of a suspected illegal VIN plate. This single digit number is determined, based upon a complex mathematical formula which is applied to each vehicle's VIN number.

LOCATION OF VIN PLATE

The plate is attached to the top ledge of the dash panel under the bonnet(engine hood), refer to the illustration shown right.



[Note]

If the VIN(Chassis) reference number in the PCM(Parts Catalog Microfiche) appeared as:

NA35 * * - 100001

...the vehicle's VIN would be e.g. JM1NA351 * L0100001

ABBREVIATIONS

The following abbreviations are used throughout Mazda Microfiche parts catalog: in the illustration, tex, section number index, alphabetical index.

Abbreviation	Definition
1ST	First
2ND	Second
2D	2 Door
2 SEAT	2 Seater
3D	3 Door
3RD	Third
3 SP	3 Speed
4D	4 Door
4 SP or 4 SPD	4 Speed
4.5 SP	4 Speed 5 Speed
4TH	Fourth
5D	5 Door
5 LINK	5 Link Suspension
5 SP or 5 SPD	5 Speed
10TH ANNIV	10th Anniversary
[A]	
A	Ampere
A.A.S or A.A.SUSP	Automatic Adjusting Suspension
ABS	Absorber
A.B.S	Anti-lock Brake System
A.B.S.V	Air Bleed Solenoid Valve
A/C	Air Conditioner
A.C.C	Automatic Cruise Controls
ACCEL	Accelerator
ACTR	Actuator
A.C.V	Air Control Valve
ADJ	Adjuster or Adjustable or Adjusting
ADJ SUSP	Adjustable Suspension
AIR P	Air Pipe
AIR CON	Air Conditioner
ALTN	Alternator
ALUM	Aluminum
AMP	Amplifier
ANALOG	Analogue
ANNIV	10th Anniversary
ANT	Antenna
ARG	Argent
A.S. ABSORBER	Adjust Shock Absorber
ASH	Ashtray
ASS'Y	Assembly
AT	Automatic Transmission
ATT	Attachment
AUS	Austria
AUST	Australia
AUTO	Automatic
[B]	
BAL	Balance
BAT	Battery
B.COLOR	Body Color
B.DOOR	Back Door
BDY	Body
BELT	Beltline
BLK	Black
BLU	Blue
BLU/GRY	Bluish Gray
BLU M	Blue Metallic
BLVA	Bolivia
BRG	Bearing
BRKT	Bracket
BRN	Brown
BRT	Britain (= Great Britain)
B.S.V	Bleed Solenoid Valve
BTHR	Breather
BUMP	Bumper
BURG	Burglar
BY.A.C.V	Bypass Air Control Valve
[C]	
C or (C)	Center
CALIF	California
C AREA	Cold Area
CAN	Canada
CARB	Carburetor
CAT	Catalyst
C DISC	Compact Disc
CE	Conventional Engine (= Reciprocating Gasoline Engine)
C.G.R	Constant Gear Ratio
CH	Coach
CHG	Change
CHMBR	Chamber
CHK	Check
CLG	Cooling
CLNR	Cleaner
CLTR	Cigarette Lighter
CLU	Clutch
CM	Centimeter(s)
C MEMBER	Crossmember
CNTNR	Container
COMB	Combination
COMP	Companion
COMPR	Compressor
COMPS	Compensator
CONDSR	Condenser
CONN	Connector or Connecting
CONS	Console
CONT	Control
CONV	Conventional
CONVR	Converter
[illegible]	Cover
CPE	Coupe
CPT	Complete Assembly
CPU	Computer
C.P.UNIT	Central Processing Unit
[illegible]	[illegible]
CLUST	Cluster
C/SHIFT	Column Shift
CTR	Center
CUSH	Cushion
CYL	Cylinder
[D]	
D or DR	Door
D=	Diameter=
DBL CAB	Double Cab (= Crew Cab)
D BLUE	Dark Blue
D BRN	Dark Brown
DE	Diesel Engine
DEF	Defroster
DEFG	Defogger
DES	Design
DEMIST	Demister
D GRY	Dark Grey
DIAPH	Diaphragm
DIFF	Differential
DISC B	Drum Brake
DIST	Distributor
DMPR	Damper
DOHC	Double Overhead Camshaft
D.P	Dual Proportioning
DRUM B	Drum Brake
D/TIRE or D TIRE	Double Tire (= Dual Tire)
DT TOP	Detachable Top
DUMP	Dump Truck
DX	Deluxe
D YLW	Dark Yellow
[E]	
ECE	Economic Commission for Europe
ECON	Economy
E.C.P.S. SYS	Electric Control Power Steering System
EGI	Electric Gasoline Injection
E.G.R	Exhaust Gas Recirculation
ELECT	Electric
EM	Emission Controls
ENEGY or ENGY	Energy
ENG	Engine
EQLZR	Equalizer
EQUIP	Equipment
EX	Exhaust
EXC	[illegible]
EXC 10TH ANNIV	EXC 10th Anniversary
EXT	Extension
EXTRACT	Extractor
[F]	
[illegible]	[illegible]
F	Feet (Foot)
FED	Federal
FINIS	Finisher
F.I.P	Fuel Injection Pump
FLEX	Flexible
F.I.MIXER	Fuel Injection Mixer
FIX	Fixing
FLID	Filler Lid
F.L.DECK	Full Logic Deck
FOLD	Folding
FRA	France
FRT	Front
F/SHIFT	Floor Shift
FULL CON	Fully Controlled
[G]	
G	Gram(s)
GARN	Garnish
GAS	Gasoline
GASOH	Gasohol
GEN	General
G.HATCH	Glass Hatch
GLD M	Gold Metallic
GLS	Glass
GOV	Governor
GRN	Green
GRY	Gray
GRY/GRN	Grayish Green
[H]	
H	Head
HARN	Harness
H.A.C	High Altitude Compensator
H.A.CONPENSATOR	High Altitude Compensator
HB	Hatchback
H.B.RE	Hatchback Release
HC A/T	Hydro Control Automatic T/Mission
H DUTY	Heavy Duty
HEA or HEAT	Heater
HI -	High -
HI ALTI	High Altitude
H.I.C	Head Injury Criteria
HIGHT	High Tension
HL or H.L or H/LAMP	Head Lamp
H.KONG	Hong Kong
HNGR	Hanger
HP	Horsepower(s)
H.P.R	High Penetration Resistant
HSG	Housing
HT, H/T or H.TOP	Hardtop
HWI	Hawaii
[I]	
IG or IGN	Ignition
IL	Island
ILLUM	Illumination
IN	Inlet
IND	Indicator
INHIB	Inhibitor
INJ	Injector
INN	Inner
INS	Insulator
INSP	Inspection
INST	Instrument
INT	Interior
INT COOLER	Inter Cooler
INTER	Intermediate
INTMT or INTERMIT	Intermittent
IRS or IR SUSP	Independent Rear Suspension
ISC	Idle Speed Control
ITALY	Italy
[K]	
KG	Kilogram(s)
KM	Kilometer(s)
KW	Kilowatt(s)
[L]	
L or (L)	Left
L=	Length=
L	Liter(s)
L.T	Liter(s) Tank
L/	Less (= Without)
L/A.A. SUSP	Less Automatic Adjusting Suspension
L/A.C	Less Air Conditioner
L/BODY	Long Body
L/BOX	Long Box
L/CPMT	Luggage Compartment
L.C DISPLAY	Liquid Crystal Display
L/EGI	Less Electric Gasoline Injection
L/EM	Less Emission Controls
L.H.D	Left Hand Drive
LH SIDE	Left Hand Side
LKOUT	Lockout
L NOSE	Long Nose
L/NVG. CPU	Less Navigation Computer
LO	Low
L.S VALVE	Load Sensing Valve
L/PARTITION	Less Partition
L.P.G	L.P. Gas (= Liquefied Petroleum Gas)
L.S.D or L.S. DIFF	Less Slip Differential
LT	Liter(s) Tank
L/TAILGATE	Less Tailgate
LVR	Lever
LWR	Lower
LRG	Large
L.W.P	L with Performance Package
[M]	
M	Meter(s)
MA CYL	Master Cylinder
MAINT	Maintain or Maintenance
M.A. SUSP	Multi Adjustable Suspension
M EAST	Middle East
MF	Maintenance Free
MIR	Mirror
ML	Mainland
MLD or MLDG	Moulding
MM	Millimeter(s)
MPX	Multiplex
MRN	Maroon
MT & MTG	Mounting
MT	Manual Transmission
[N]	
N=	Number of Teeth
NARR	Narrow
N.C	Normal Close
N.O	Normal Open
NO	Number
NON SP	Non Special Equipment
NON TILT	Non Tilting
NOR	Normal
NOZ	Nozzle
N.S.W	New South Wales (Aus)
NVGT CPU	Navigation Computer
NZ	New Zealand
[O]	
O	Over
O FLTR	Oil Filter
OH	Over Head
OHC	Overhead Camshaft
OIL CONSUMP	Oil Consumption
OP	Optional
ORD BY	Order By
O.S	Oversize
OT	Over Top
OUT	Outer
[P]	
P	Panel
(P)	Primary
PARK or PARKG	Parking
PASS	Passenger
P.B	Proportioning Brake
P.C.V	Positive Crankcase Ventilation
PHILPPNS	Philippines
PILR	Pillar
PLG	Plug
PKG	Package
PNEUMA	Pneumatic
PNL	Panel
PNT	Point
POSIT	Positive
POW WINDOW	Power Window
P.P	Polypropylene (Plastics)
PRESS	Pressure
PROTN	Protection
PROTR	Protector
PORTGL	Portugal
P.S	Power Steering
P.SOUND	Premium Sound
PSTN	Piston
PTC	Positive Temperature Coefficient
P.T.O	Power Take Off
PUL	Pulley
P/W or P.WINDOW	Power Window
PWRGT LIFTR	Power Gate Lifter
[Q]	
QTR	Quarter
QTY	Quantity
[R]	
R	Final Gear Ratio
R or (R)	Right
RAD	Radiator
RE	Rotary Engine
RECIPRO	Reciprocating Engine (= Conventional Engine)
REFRIGER	Refrigerator car
REG or REGL	Regular
REG GAS	Regular Gasoline
REGUL	Regulator
REL	Release
REM CON	Remote Controlled
RET	Return
RETAIN	Retaining
RETRACT	Retractable
REV	Reverse
R.H.D	Right Hand Drive
RICO	Puerto Rico
R.H. SIDE	Right Hand Side
REINF	Reinforcement
R or RR	Rear
[S]	
S	Side
S	Secondary
SAFE	Safety
S AFRICA	South Africa
SAUDI	Saudi Arabia
S/BODY	Short Body
S/BOX	Short Box
SDN	Sedan
[illegible]	Standard (Aus)
SELECT	Selective Line
SENS	Sensor
SERV	Service
S FORM	[illegible]

Abbreviation	Definition
SG, SGN or SIG	Signal
SHIFT	Shift
SHRD	Shroud
SHTR	Shutter
SILV M or SILVER M	Silver Metallic
SING	Singapore
SILEN	Silencer
SLDG	Sliding
SLN	Saloon
SML	Small
S NOSE	Short Nose
SOL	Solenoid
SP	Speed
SPEC	Specification
SPEEDO	Speedometer
SPG	Spring
SPK	Speaker (Loud Speaker)
SPLR	Spoiler
ST	Steering
STAB	Stabilizer
STD	Standard
S TIRE or S TIRE	Single Tire
STYL	Styled
SUB TRNS	Sub-transmission
SUN SHLD	Sun Shield
SURGT	Surge Tank
SUP GAS	Super Gasoline
SUSP	Suspension
SV	Solenoid Valve
SW	Switch
S WASHER	Screen Washer (Windshield Washer)
SWG	[illegible]
SYNC	Synchronizer
[T]	
T	Tons
TK	Thickness
TACH & TACHOM	Tachometer
T ADJUST	Timer Adjusting
TACHOZ TACHOM	Tachometer
T BELT	Timing Belt
T CEILING	[illegible]
TF	Transfer
TH	Throttle
THA	Thailand
THERM	Thermostat
THROT	[illegible]
[illegible]	[illegible]
TM [illegible]	Transmission
T CLIMT	[illegible] Climate
TR	Truck
TRQ GUIDE	Torque Guide
T TORANGE	Trident and Triangle
TURB	Turbocharge
TWN	Twin
[U]	
UK	The United Kingdom
U LONG	Ultra Long
UND	Under
UP	Upper
URETANE	Urethane Rubber
US	Undersize
[V]	
V	Voltage

Abbreviation	Definition
V	Valve
VAC	Vacuum
V CHAMBER	Vacuum Chamber
VENT	Ventilator or Ventilation
VGR	Variable Gear Ratio
VNL	Vinyl
[W]	
W	Watts
W or WIND	Window
WD	Width
W	With or Use with
W/O LS VALVE	W/O Load Sensing Valve
W/O OIL CONSUMP	W/O Oil Consumption
W/O PTO	W/O Power Take Off
WARN	Warning
WAS	Washer
W AUTO BELT	With Automatic Shoulder Belt
W CHASSIS	Window and Chassis
W GER or W GERMANY	West Germany
WAT	Water
WGN	Wagon
WHL	Wheel
WHT	White
WND	Window
WP	Wiper
W/O AUTO BELT	Without Automatic Shoulder Belt
WO	[illegible]
WSHR	[illegible]
W PUMP	Water Pump
WSHLD or WINDSHLD	Windshield
WSTRP or WEATHERSTR	Weatherstrip
WT	With Tube Tire
[Y]	
YLW	Yellow
Y W GRN	Yellowish Green
Y WHT	Yellowish White
[Z]	
Z TEMP	Zone Temperature

Abbreviation	Definition